

DS2 Player & Config Application



User Guide

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Table of Contents

Intro

Downloading the DS2 Player.	4
Downloading the Configuration App.	5

Accessing Video Files

Removing the SD Card.	6
Accessing video stored on SD.	6

Using the DS2 Player

Exploring the DS2 Player.	8
Video Player Controls.	9
Time-Line Controls.	9
Playback Volume.	9
Using the Map.	10
Blur Tool.	11
Video Zooming.	12
Frame Information.	13

Archiving

Creating Video Archives.	14
Capturing Images.	15
Playing Standard Format Archives.	16
Playing AVI Format Archives.	17
Playing Export Format Archives.	18

DS2 Configuration App

Connecting to a DS2 Unit.	19
DS2 Configuration App Settings.	21
OBD Information.	21
Aim Camera.	24
System Setup.	25
Downloading Firmware Updates.	29
Upgrading firmware on your DS2.	31

Support Information

FRC Customer Service and Product Support.	33
Product Information.	33
Warranty.	33

Intro

This user guide covers the DS2 video player and mobile configuration application. This guide **does not** go into the installation procedure for any of the DS2 components (cameras, electronic control unit, wires and cables). Before you can use the player or config app, all components **must** be installed and powered in the vehicle.

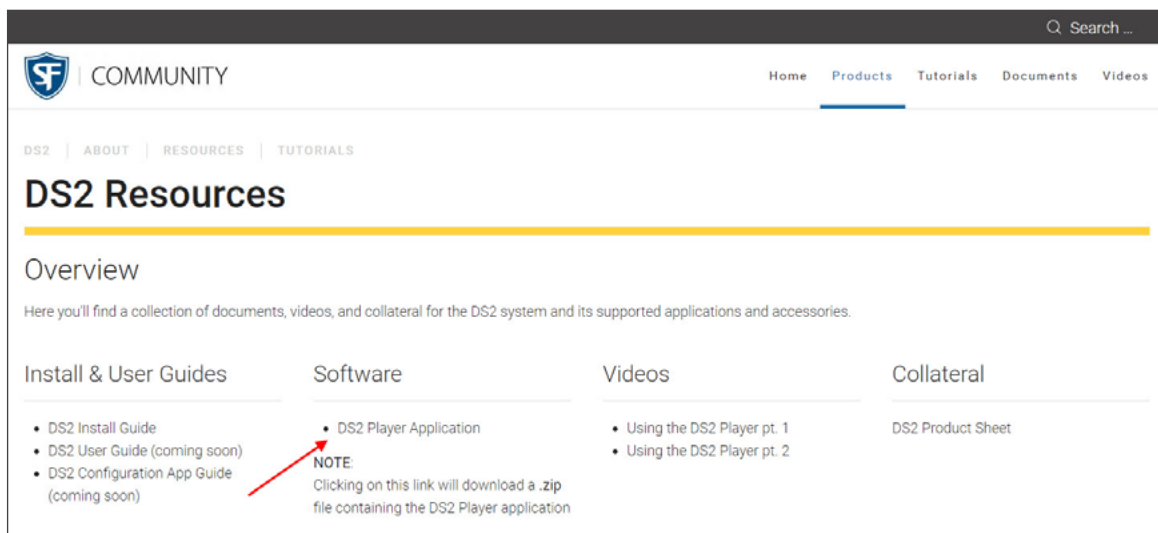
For more information on how to install the components, please see the DS2 Installation Guide on the SEON Community (<https://community.seon.com/ds2/ds2-resources/>).

For access to the community website, please contact the **SEON Service Team** to get a user name and password (service@seon.com or 1.844.899.7366)

Downloading the DS2 Player

You'll need to download a copy of the **DS2 Player** in order to review, edit and archive video files. A copy of the DS2 Player application can be found on the Safe Fleet Community.

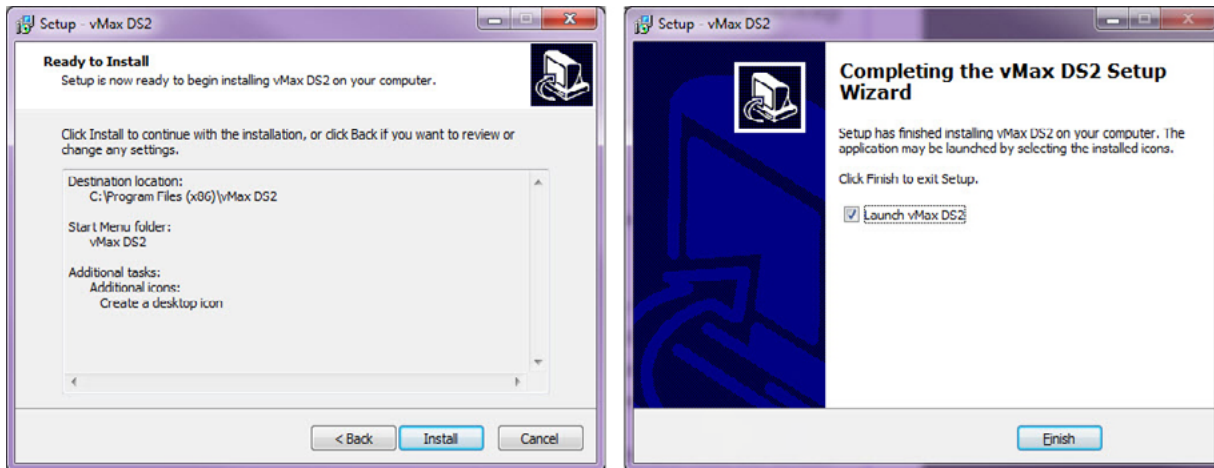
1. Log into SEON Community and navigate to the DS2 Resources page.
<https://community.seon.com/ds2/ds2-resources/>



2. Click the **DS2 Player Application** download link. A **.zip** file will begin downloading to your PC.
3. Unzip the file to a destination on your computer
4. Double-click the application file (.exe) to install the player.

Name	Type	Compressed size	Password ...	Size	Ratio	Date modified
vMax DS2_v2017042701.cxc	Application	92,538 KB	No	92,538 KB	0%	13/12/2017 7:56 AM

- Follow the instructions on the installation wizard and click **Finish** when complete.



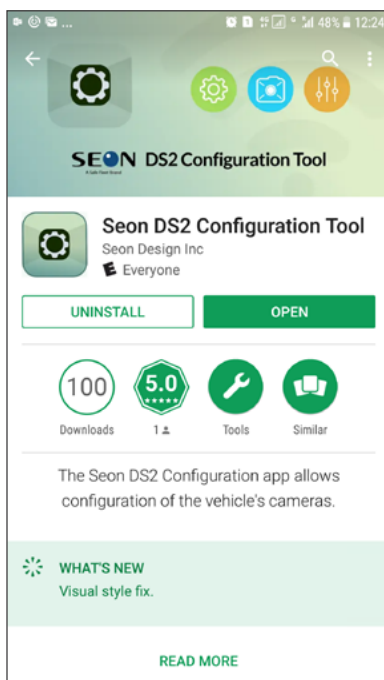
Downloading the Configuration App

The DS2 Configuration App is required for updating the system firmware and changing system settings like date & time, frame rate, and resolution. It is free of charge, and available for both Apple and Android phones.

Android Phones

Search for **SEON DS2 Configuration*** on the Google Play Store. You should see the DS2 Configuration Tool as the only search result. Download and install the app onto your phone.

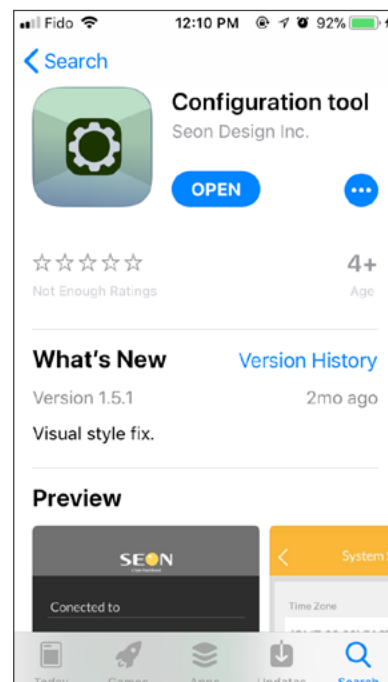
*** Requires Android 4.0 or higher.**



iOS Phones

Search for **SEON Configuration*** on the iTunes App Store. You should see the DS2 Configuration Tool as the only search result. Download and install the app onto your phone.

*** Requires iOS 8.0 or higher.**



Accessing Video Files

All DS2 video gets stored onto an SD card located inside the **front-facing** camera. The video files are encrypted, and cannot be accessed or transferred to your computer without the DS2 Player application.

Removing the SD Card

You'll need to remove the SD card from the DS2 in order to view the video content. To remove the card, simply use the supplied **Torx** security key to remove the cover. Once the cover is off, the card can be removed freely.

WARNING: Unlock SC Card First!



The SD card holder is **spring-loaded**. This means you must first push the card *in* to unlock it from the slot.

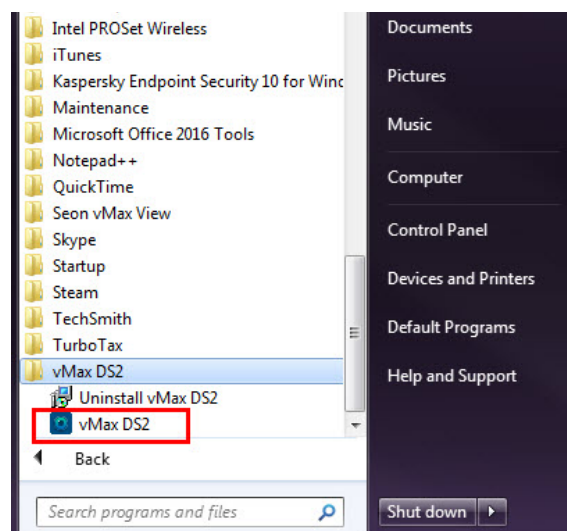
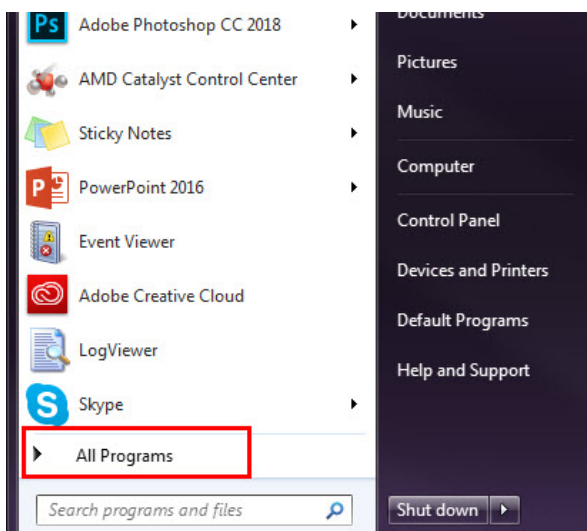
Once unlocked, you can easily pull the card *out* by hand. **DO NOT** attempt to pull the SD card without unlocking it first!



Accessing video stored on SD

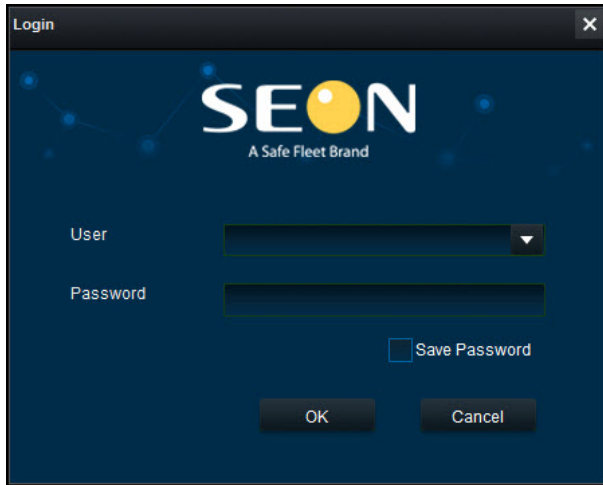
Once the SD card is removed from the front camera, you can view the contents on your PC by using the DS2 Player application. To access your video files:

1. Insert the SD card into your computer. If your computer doesn't have an SD card reader already built in, use the supplied SD to USB adapter.
2. Open the DS2 Player application. By default, you can find it under **All Programs > vMax DS2** from your Windows start menu.

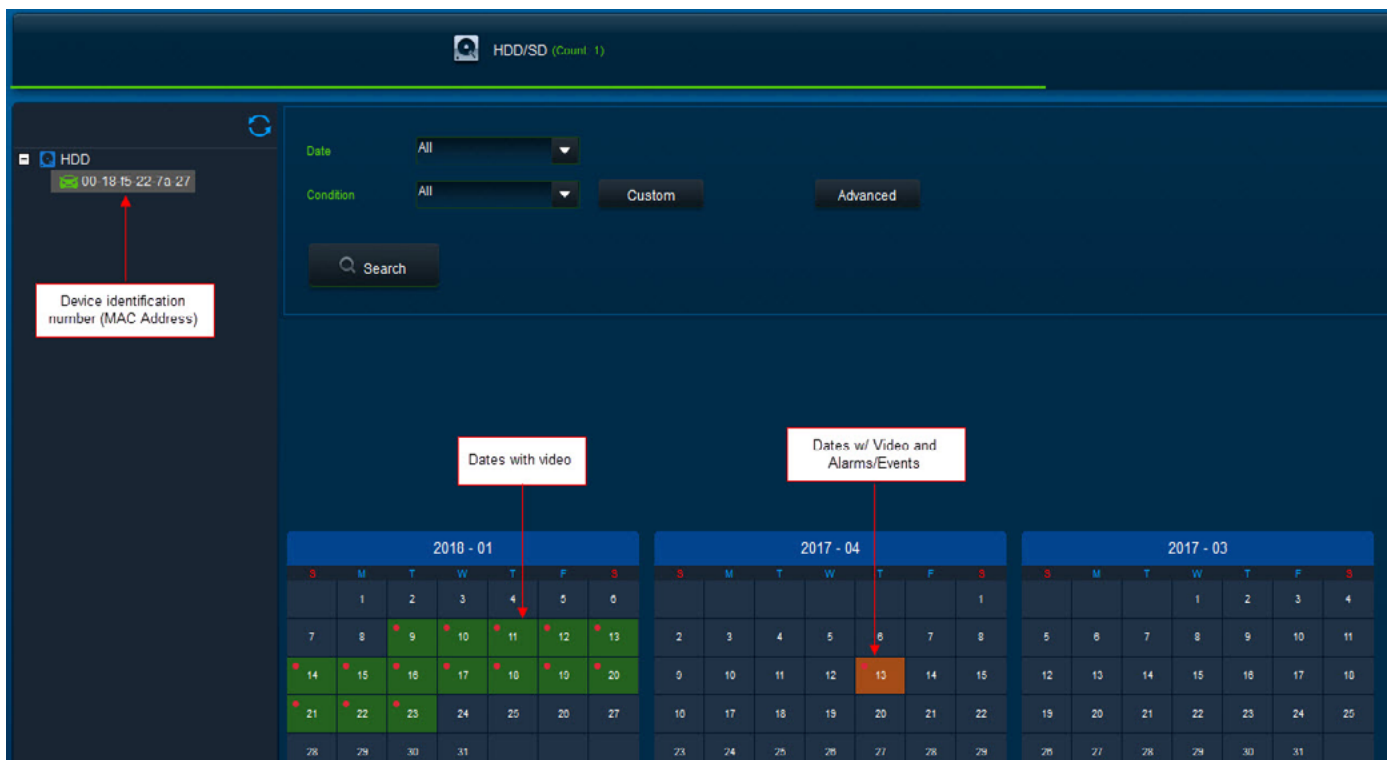


3. Then the player launches, you'll need to enter the user name and password. By default, the credentials are:

- User: ADMIN
- Password: 11111111



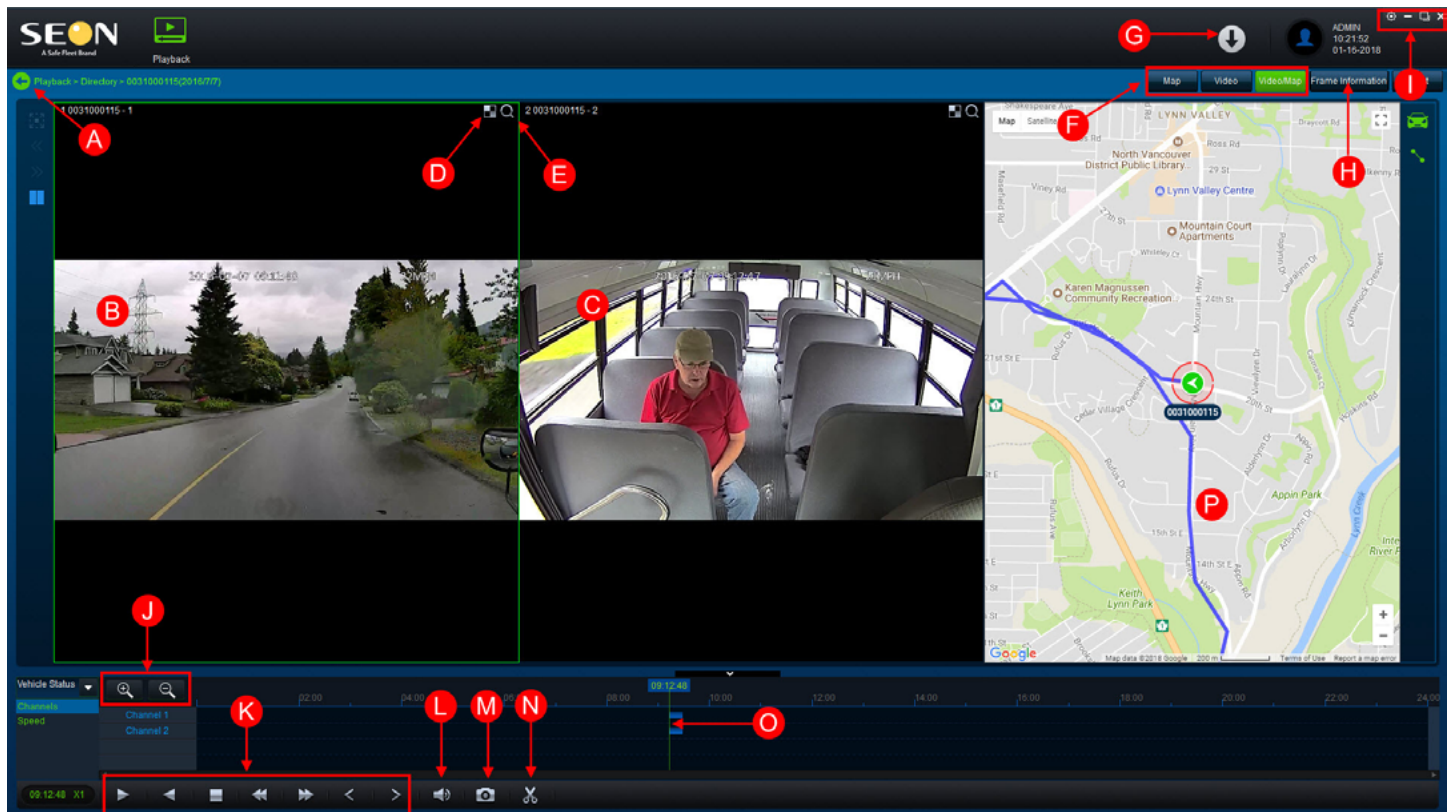
4. Once you're logged in, ensure that you're on the **HDD/SD** tab.
5. In the navigation column to the left, you'll see a 🚗 (vehicle) icon, followed by the DS2 device's identification number. This is the "name" of the video file stored on the SD card. In most cases, the name of the DS2 will be the same as the device's MAC address.
6. Double-click the video file name to display the video calendar. Any date containing a green box indicates video on that particular day. Any date containing an orange box indicates that there is video AND there was an alarm/event triggered on that day. Double-click any date (green or orange) to load the video file from that date.



Using the DS2 Player

Before proceeding with this section, you must first know how to access video files from either an SD card or your local directory. Be sure to review "Accessing Video Files" on page 6 if you're not familiar with this process.

Exploring the DS2 Player



A - Back to directory

B - Channel 1 (front-facing camera)

C - Channel 2 (rear-facing camera)

D - Blur tool

E - Magnify tool

F - View mode

G - Archive progress indicator

H - Frame information

I - System settings & minimize/close application

J - Time-line zoom in/out

K - Playback controls

L - Volume control

M - Snapshot tool

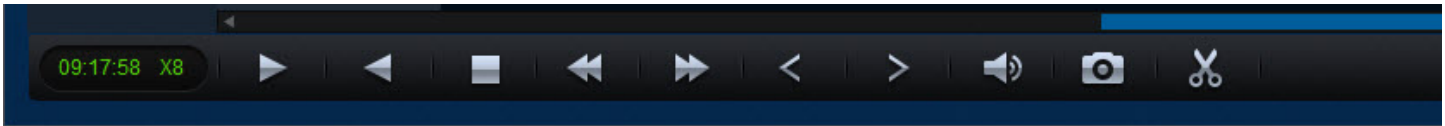
N - Archive tool

O - Time-line indicator

P - Map

Video Player Controls

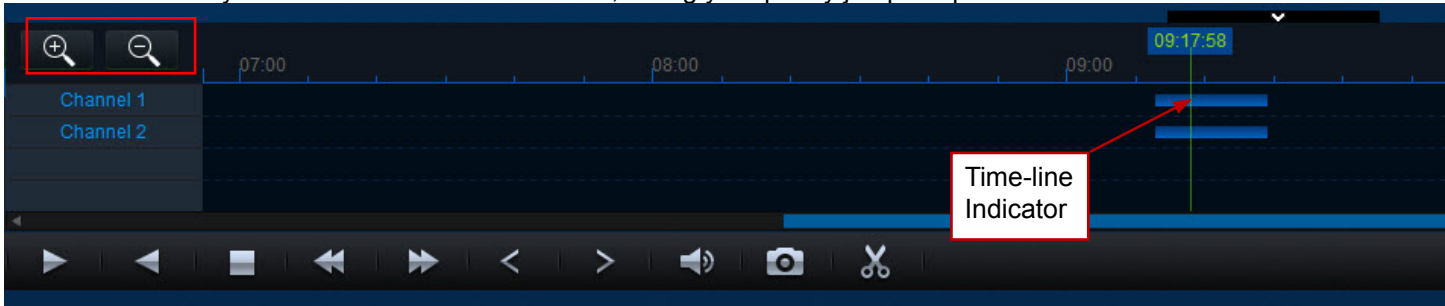
These controls let you play, stop and seek video.



1. Click the ► button to begin playing video. Click the || button to pause the video.
2. Click the ◀ button to play the video in reverse.
3. Click ■ to stop video playback.
4. Click ◀◀ to reduce the playback speed. Speeds can be reduced by 1/2, 1/4, 1/8, 1/16, 1/32 increments.
5. Click ▶▶ to increase playback speed. Speeds can be increased by x2, x4, x8, x16, x32 increments.
6. Click ◀ to step the video backward, frame-by-frame.
7. Click ▶ to step the video forward, frame-by-frame.

Time-Line Controls

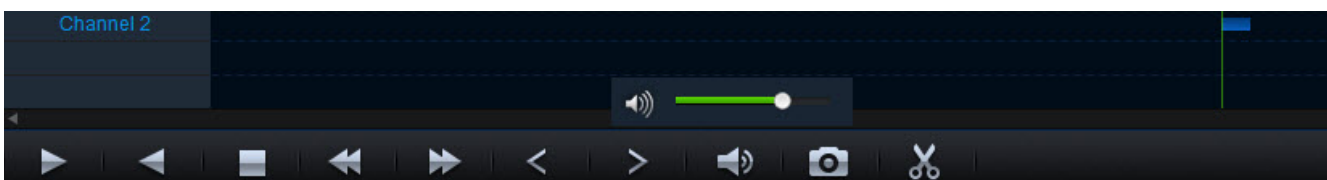
These controls let you zoom and scroll the time-line, letting you quickly jump to specific moments in a video.



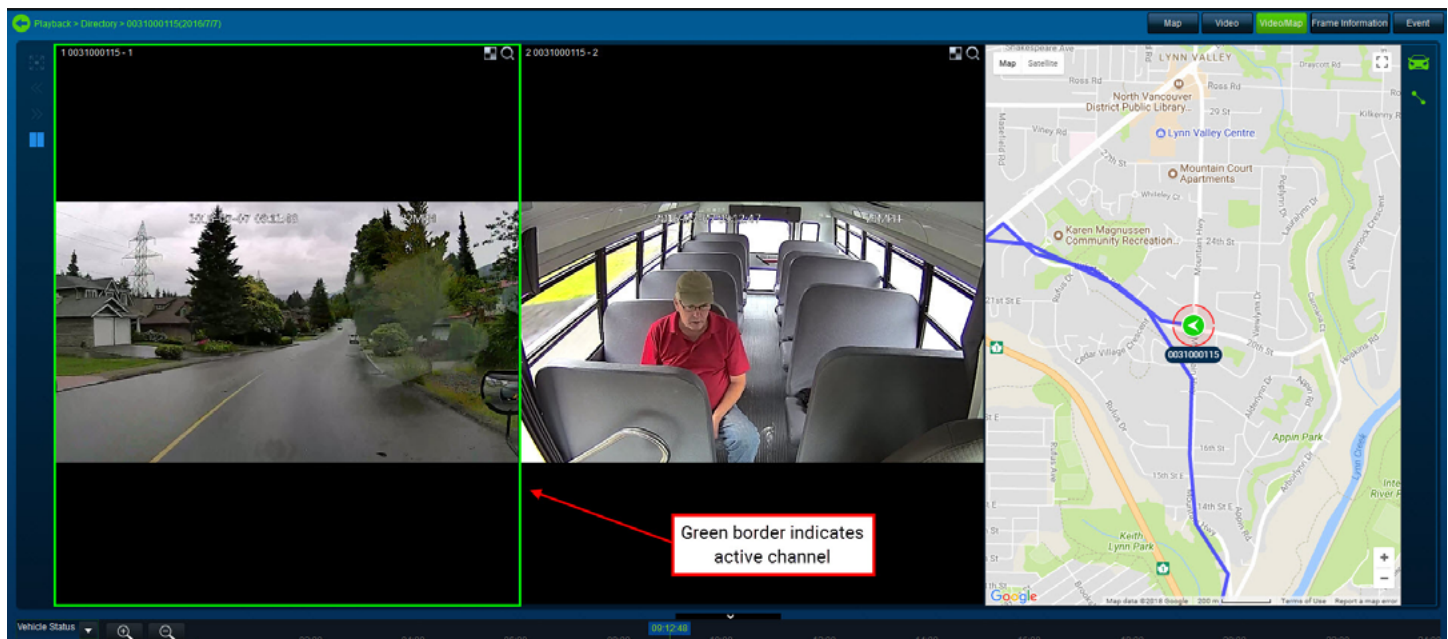
1. Use the **zoom** buttons to zoom the time-line in (⊕) and out (⊖). The default time-line is displayed on a 24 hr scale. Use the zoom buttons to scale to 24hr, 12hr, 6hr, 3hr, 1hr, 30min, 10min, 5min, 1min, or 5sec.
2. Click or drag the **indicator** anywhere on the time-line to quickly jump to a specific moment in the video.

Playback Volume

The playback volume can be adjusted using the 🔊 button located on the playback tool bar. To increase or decrease the volume during playback, move the cursor to the right (to increase), or to the left (to decrease).



Audio is captured on both cameras. During video playback, **channel 1** (front camera) audio is enabled by **default**. To switch to camera 2's audio stream, simply click on channel 2's video window. A **green border** around the video window indicates the active channel.



Using the Map

When you play the DS2 video, you'll see a map displaying a blue trace. This blue trace indicates the travel history for the entire duration of the video (i.e., if the video is 15 minutes, the trace shows where that vehicle traveled to during that 15 minute period).

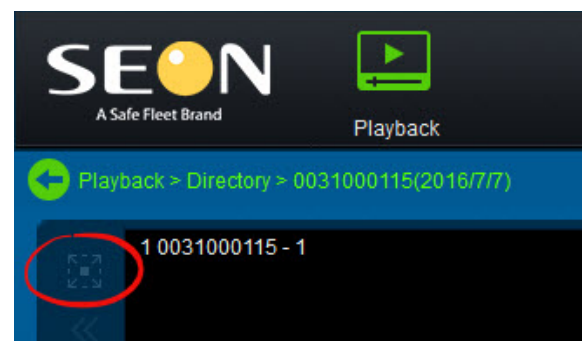
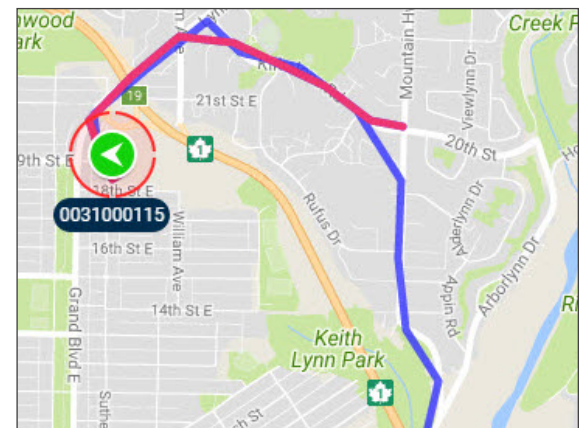
As the video progresses, the map indicator moves along the blue trace and leaves behind a pink-colored trace. The pink trace indicates the travel history up to the current moment in time.

Switching View Modes

Use the Map, Video, or Video/Map buttons (top right corner of screen) to switch view modes.

- **Map** - displays a full screen of the map
- **Video** - displays channels 1 and 2 in full screen
- **Video/Map** - divides the screen up to display Channels 1 and 2 and the map (this is the default mode).

Alternatively, you can hide the map and maximize the video channels entirely by clicking the **Full Screen** button located on the left side panel. Click to display the video channels in full screen mode, click again to revert back to the default view.

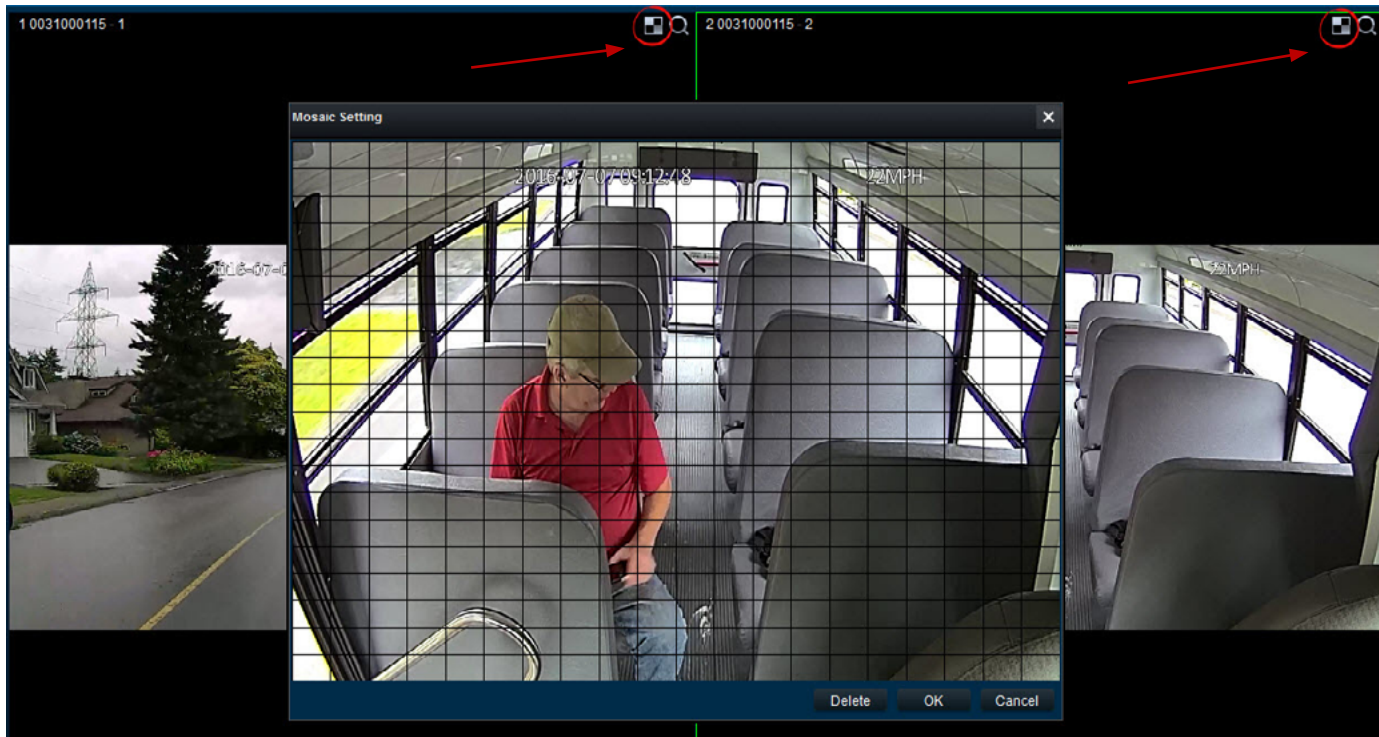


Blur Tool

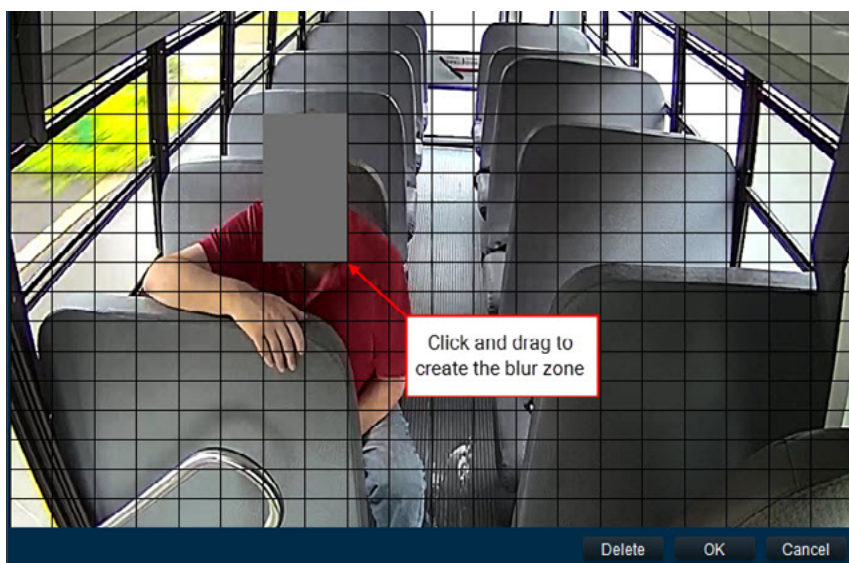
You may want to hide certain details of your video for privacy reasons. This is useful for when you want to share video clips for investigation, but want to hide the faces of passengers. The **Blur Tool** lets you do this.

To create a blur zone:

1. Select the channel you want to blur. A green border will appear around the active channel.
2. Select the **Blur** tool. The **Mosaic Settings** window appears.



3. Click and drag anywhere on the grid to create a blurred zone.



- Click **OK** to create the zone, or if you make a mistake, click **Delete** to remove and try again. You can create more than one blurred zone. Click **Cancel** to abort.
- Once the blurred zone is created, you'll notice a mosaic effect on the camera image. This represents the blur zone you just created.

**NOTE: Event Button**

The only way to save a blur zone is to archive the video in AVI format. To learn more about saving video, see "Archiving" on page 14 for more detail.

Video Zooming

There are a few different ways to zoom the video during playback:

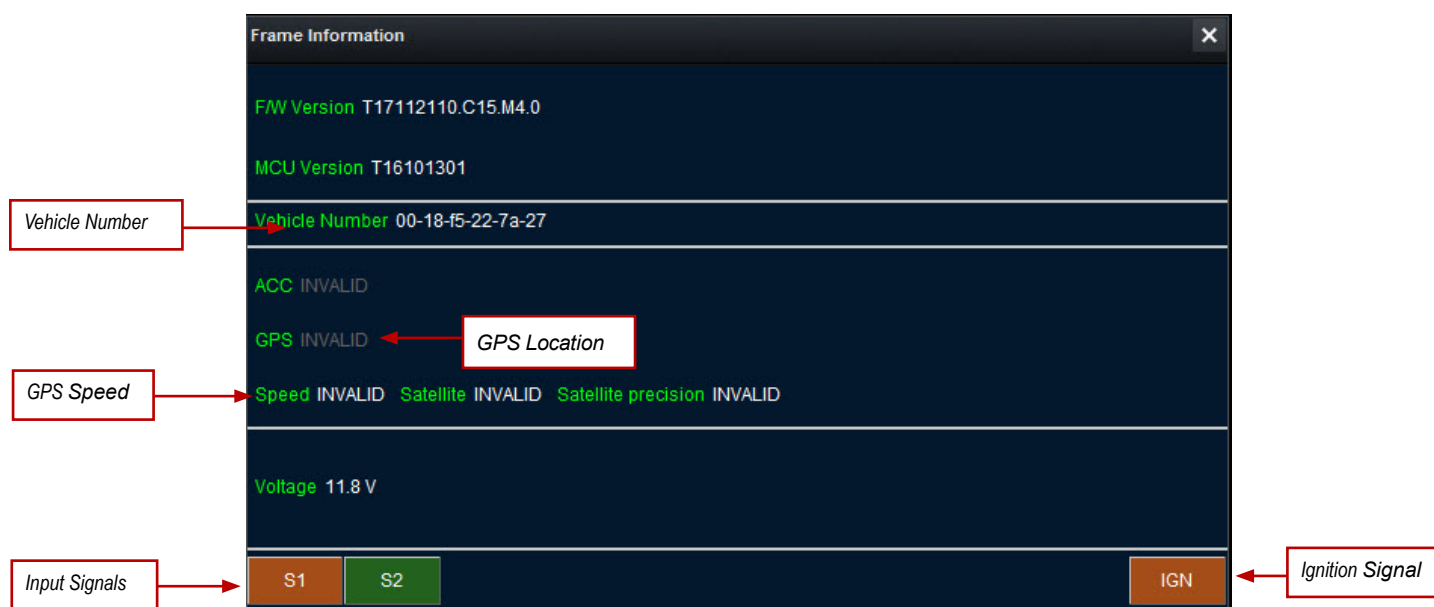
- Double-click on either channel to **maximize** the image. Double-click again to restore the camera image back to the **default** size.
- Select the **Zoom** Tool (located beside the **Blur** tool), then click and drag to create a zoom area. Double-click on the image again to restore it to the default size.



Frame Information

This window provides important information about your DS2 system as video is playing back in real time. The following fields are supported:

- **Vehicle Number** - This is the identifying number of the DS2 device.
- **GPS Speed** - This is the speed of the vehicle based on GPS data.
- **GPS Location** - This field lets you know if you're getting a GPS signal. If you see "INVALID", this means the DS2 doesn't have a GPS signal. If you see a Latitude and Longitude value, then the DS2 has a GPS signal.
- **Input Signals** - These icons will change from green to orange when an input signal is detected.
- **Ignition Signal** - This icon will change from green to orange when the ignition signal is detected.



Archiving

Archiving is the process of taking DS2 video from an SD card, and creating a local copy on your computer. There are 3 ways in which you can archive DS2 video files:

Standard

This is the default video archiving method. Videos archived in Standard format are encrypted and cannot be viewed without the DS2 Player application.

Export

This format allows password protection, and can be viewed without additional software. Whenever users open an Export file, an embedded DS2 Mini-Player loads and plays the video.

AVI

Video archived in this format can be played on any computer, and additional software is not required. This format does not allow password protection, however it is the **only format that allows video blurring** (see "Blur Tool" on page 11 for more information on video blurring).

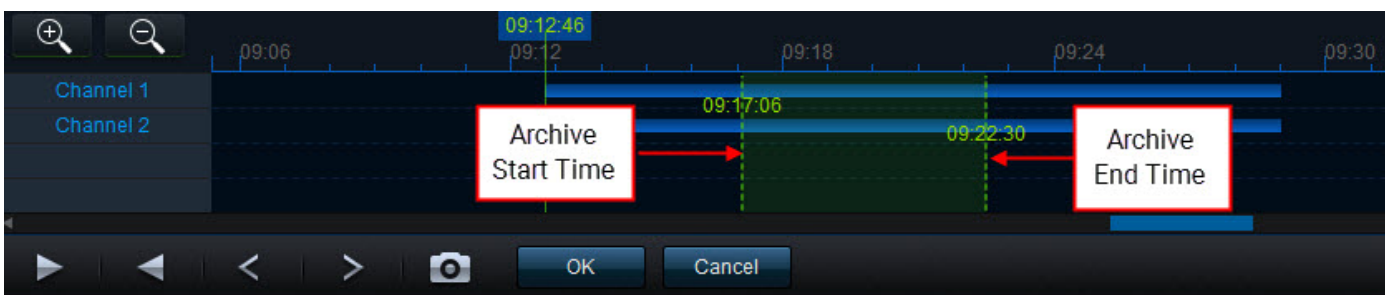
Creating Video Archives

To archive a video, you'll need to do the following:

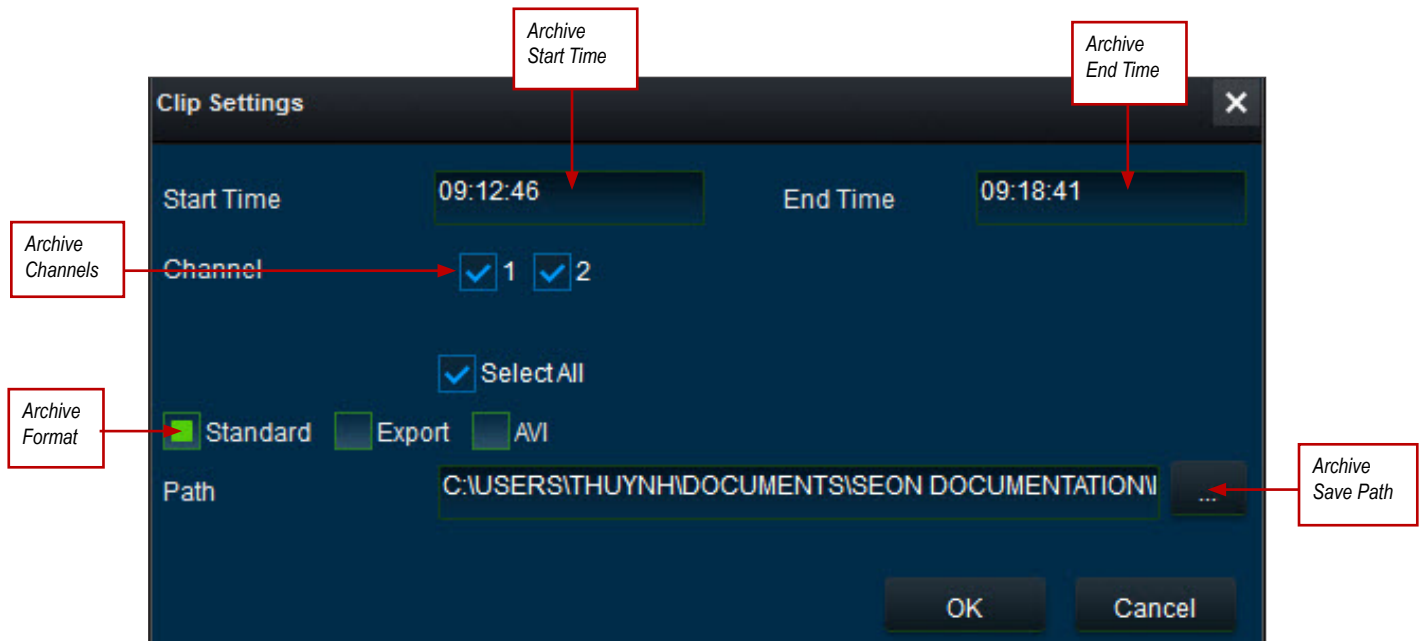
1. Click the **Clip** (✂) button. Clip **markers** appear on the time-line.



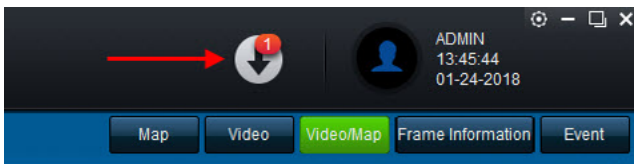
2. Move the markers to the desired **archive start** and **archive end** times, then click **OK**. The **Clip Settings** window appears.



3. Confirm your start and end times in the **Clip Settings** window.
4. Choose whether you want to archive Channel 1, Channel 2 or both. By default, **both** channels are always archived.
5. Choose your archive format (**Standard**, **Export**, **AVI**). If you're choosing to archive in Export format, you can set a password on the file.



- Specify a **Path** (folder) for where you want to save the archive, then click **OK** to begin archiving.

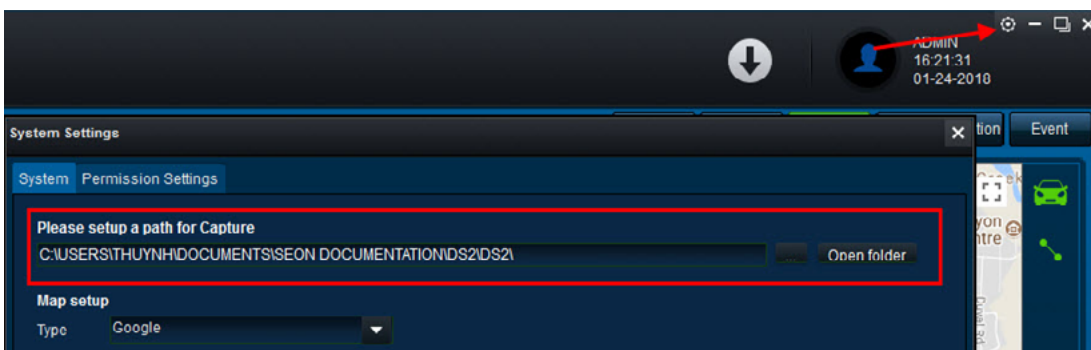


- The **Download Progress** icon let's you know that the video is being archived. If you're archiving several videos at the same time, this number will increase. When the number disappears, the archiving is complete.

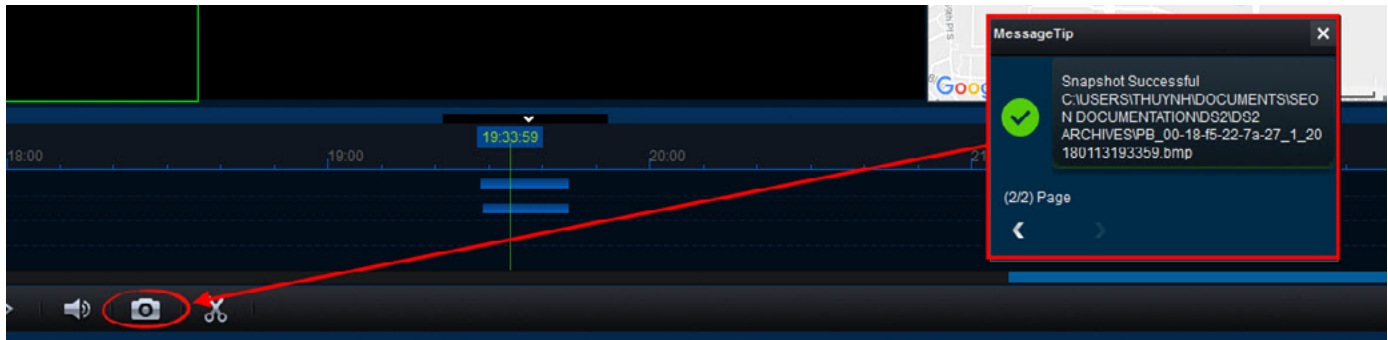
Capturing Images

There may be times when you'll want to capture an image from each camera instead of creating a video archive.

- Go to the **DS2 settings** (⚙️) in the top right corner. Select **System Settings**.
- Specify the path to store all camera captures. All camera capture images will be saved to this location. Click **OK** to close the System Settings.



3. Navigate back to the **Playback** screen.
4. Select the channel you want to capture. A green border appears around the active channel.
5. Click the  button to capture the image. Your images will appear in the specified image directory.



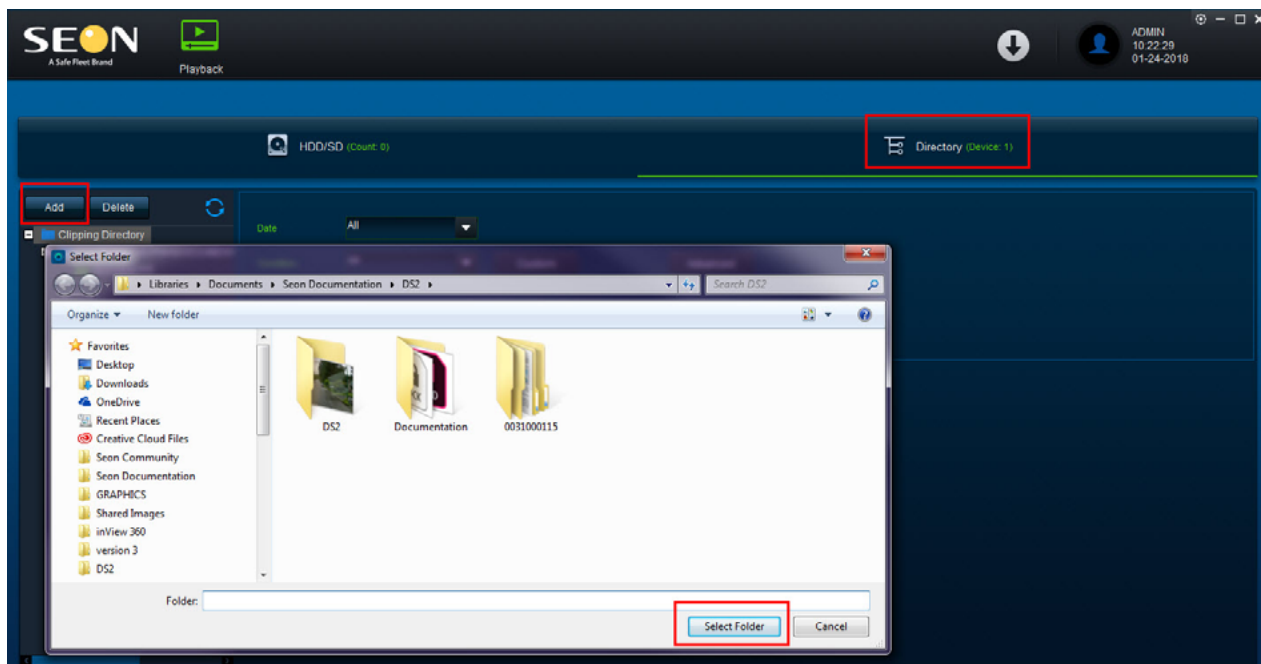
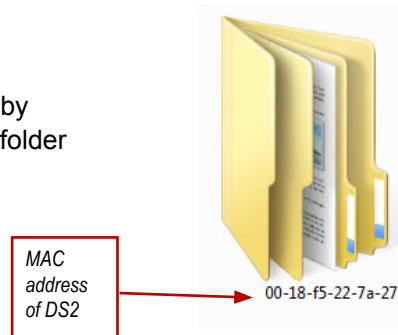
Playing Standard Format Archives

Since **Standard Archives** are encrypted, the only way to view the video is by using the DS2 Player. When a video is archived in Standard format, a new folder (containing the encrypted video files) gets created.

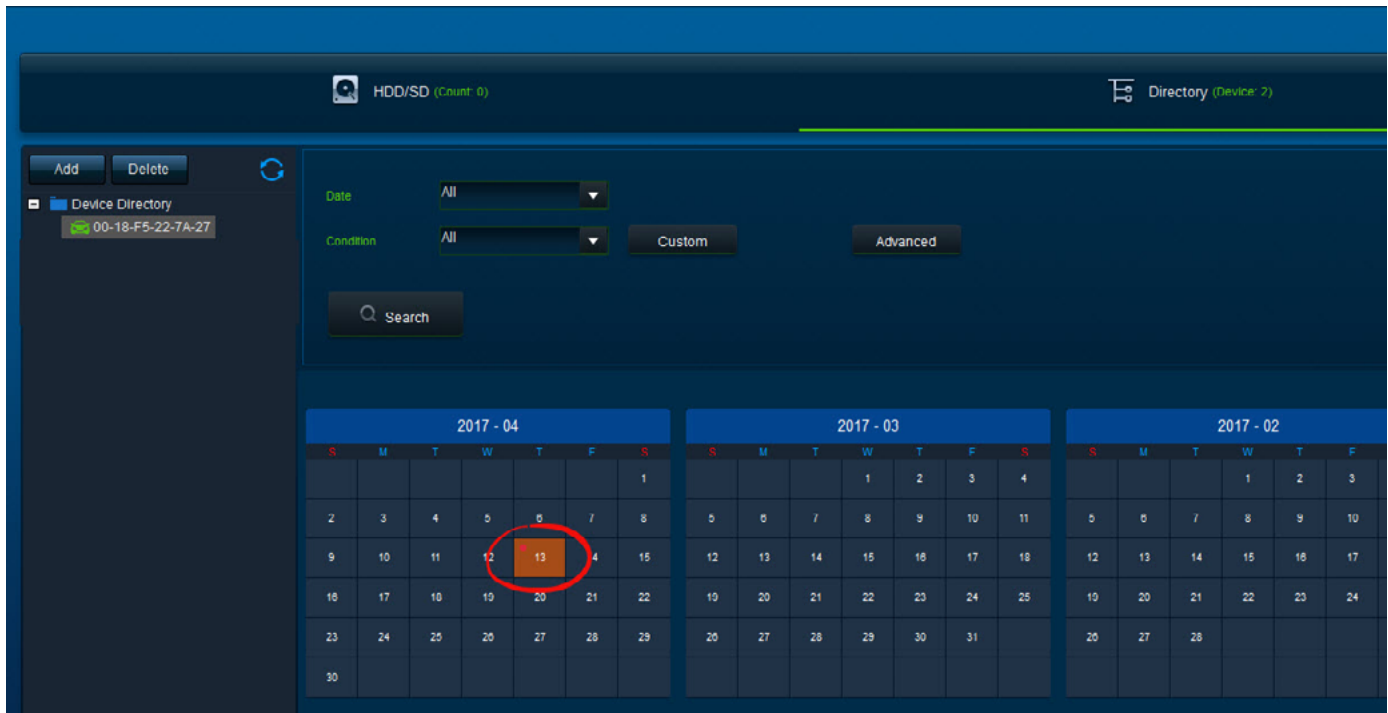
This folder is typically named as the MAC address of the DS2 unit.

To play a Standard Archive:

1. Open the DS2 Player and click the **Directory** tab.
2. Click **Add** to open the Windows explorer.
3. Navigate to the location of your stored DS2 video files and click **Select Folder**.

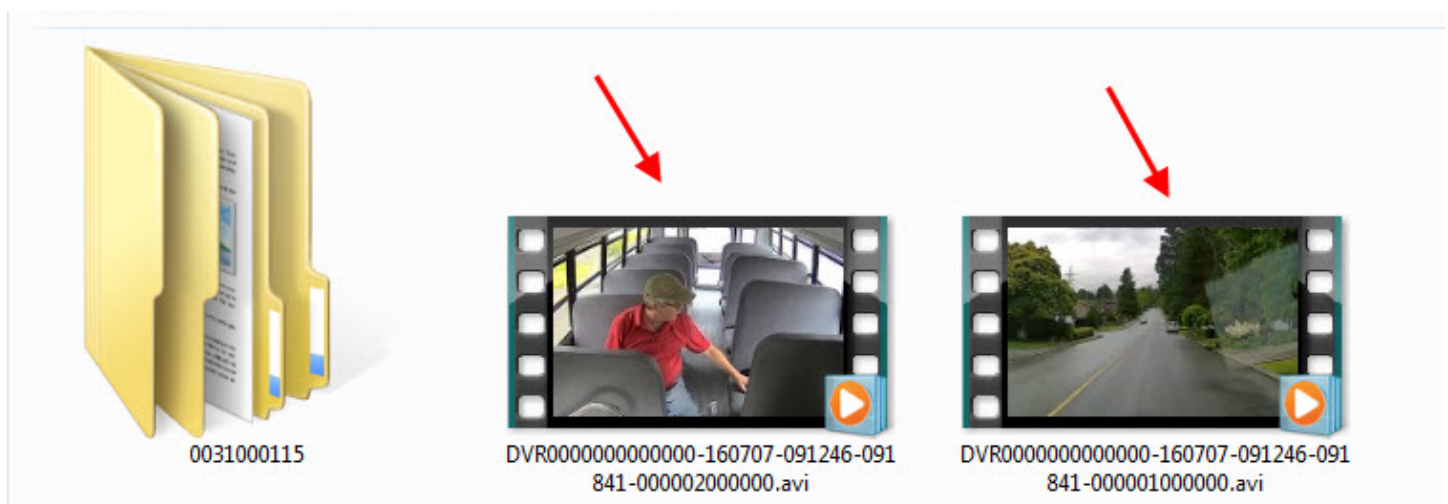


4. Once the directory has been added, you'll see the video file appear in the directory list. Double-click the video file to display the calendar. Just like when loading from the SD card, **green** dates represent video, and **orange** dates represent video with **alarm/event** triggered. Double-click a date to load the video file.



Playing AVI Format Archives

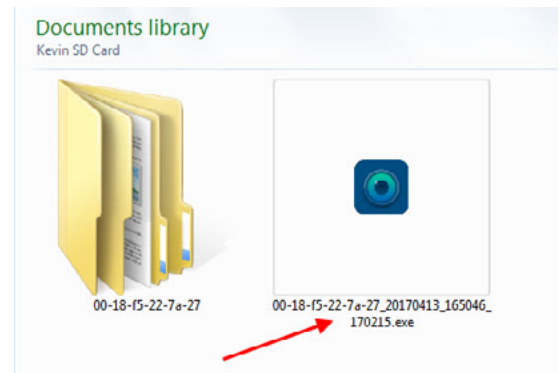
When you create an **AVI Archive**, 2 videos get created (for Channel 1 and Channel 2 respectively). To play an AVI file, simply double-click the video file. Your default media player will load and play the video. For PCs, the default player is **Windows Media Player**.



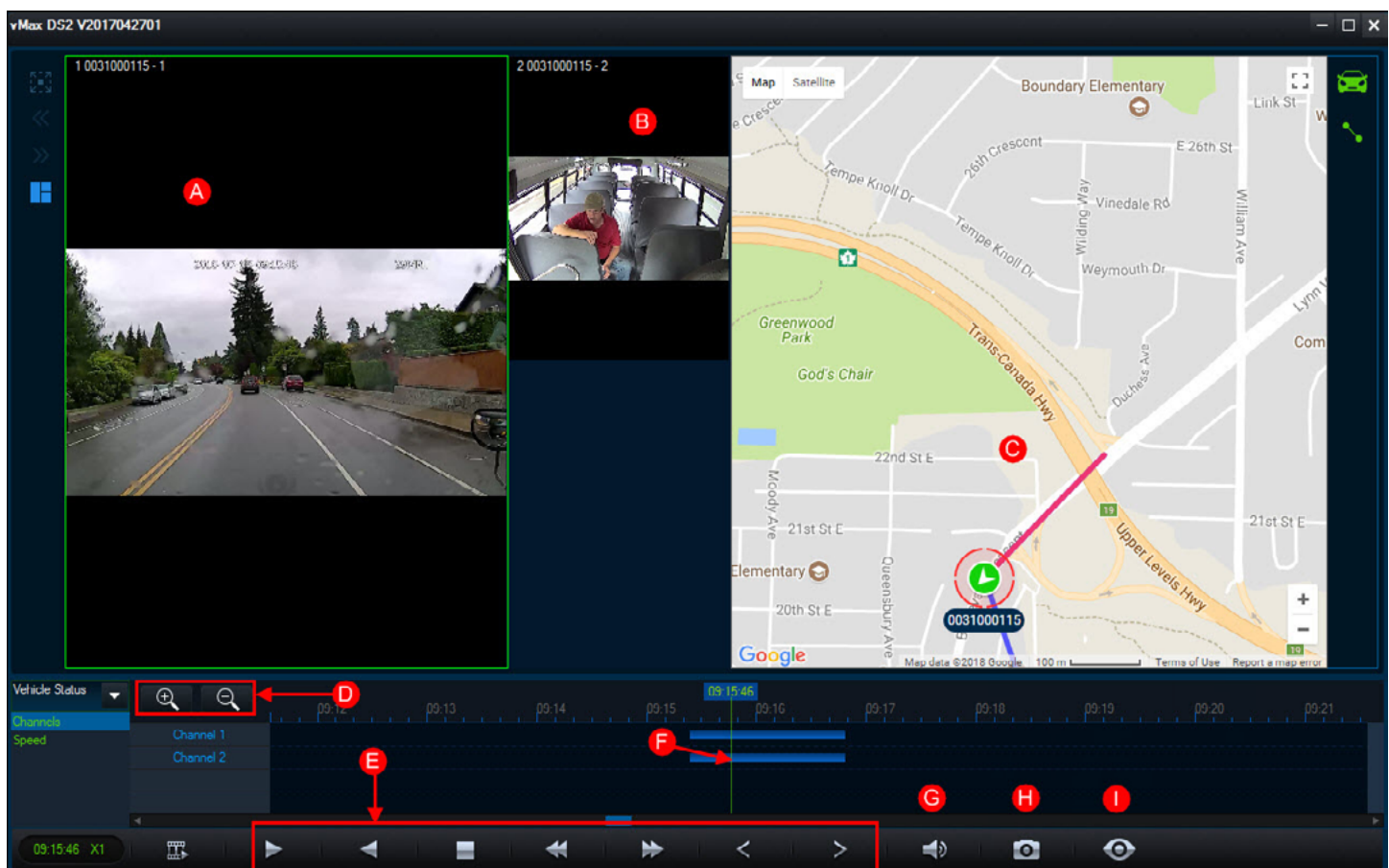
Playing Export Format Archives

Export format archives behave slightly differently than Standard and AVI archives. As previously stated, whenever users open an Export file, an embedded **DS2 Mini-Player** loads and plays the video.

The Mini-Player is similar to the normal DS2 Player in appearance, however the mini version cannot create archives or load videos from an SD card or directory. To play an export archive, simply double-click the .exe file. If the video is password protected, enter the password to play the video.



Exploring the DS2 Mini-Player



A - Channel 1 Video

B - Channel 2 Video

C - Map

D - Time-line Zoom

E - Playback Controls

F - Time-line cursor

G - Volume Control

H - Capture Image

I - Frame Information

DS2 Configuration App

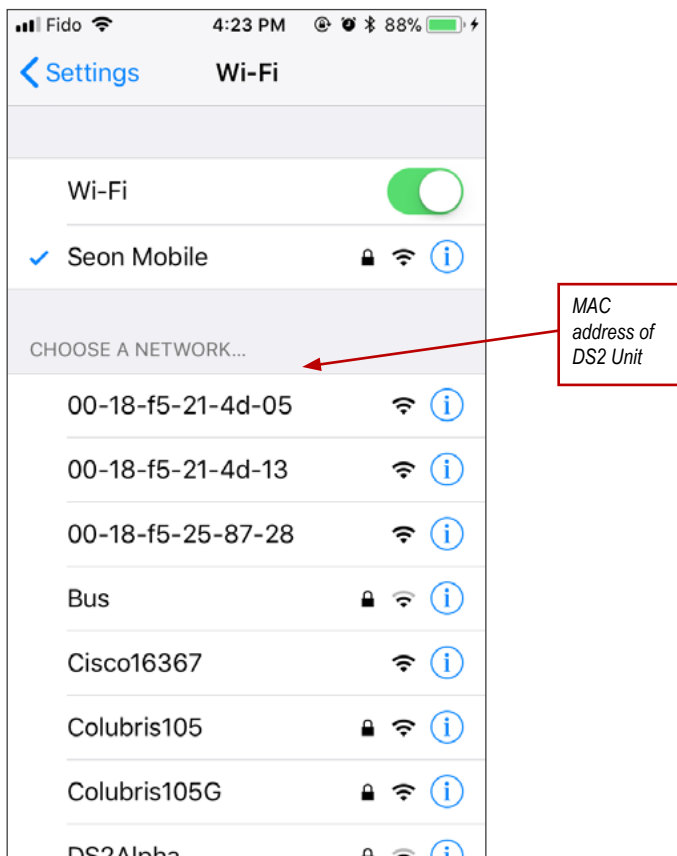
The DS2 Configuration App is required for updating the system firmware and changing system settings like date & time, frame rate, and resolution. The app is available free of charge for both **Apple** and **Android** phones. To learn how to download the configuration app, please review "Downloading the Configuration App" on page 5.

Connecting to a DS2 Unit

You must first pair your phone (via WiFi) to a DS2 system before you can use the config app. To connect to the DS2:

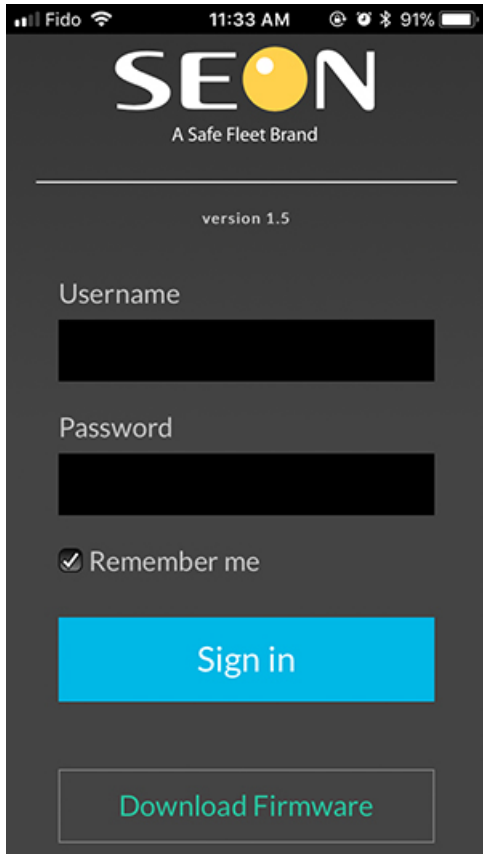
- 1 Turn on your vehicle, then navigate to your phone's Wi-Fi settings.

Connect to your vehicle's DS2 device. The device's name is typically the MAC address of the unit.

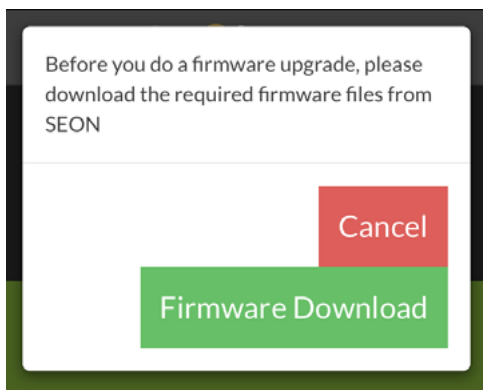


2 Once connected, open the DS2 config app and log in. The default credentials are:

- username: ADMIN,
- password: 11111111



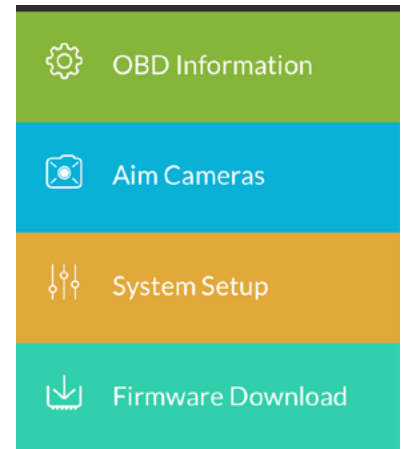
After logging in, a pop up message asks you to download the latest FW. This message appears **each time** you log in. Click **Cancel** to ignore this message.



DS2 Configuration App Settings

The config app main menu has 4 options:

- **OBD Information**
View vehicle diagnostic information based on your vehicle type.
- **Aim Cameras**
View both cameras, which helps with choosing an optimal mounting position during the installation process.
- **System Setup**
Change how your DS2 behaves. You can change frame rate, disable/enable audio, format SD card, change date/time, and more.
- **Firmware Download**
Download the latest Firmware for your DS2 ECU and cameras.



OBD Information

The DS2 has the ability to tap into your vehicle's OBD (On-Board Diagnostics) port to collect vehicle diagnostic information. In order to get OBD information, the following prerequisites have to be met:

1. You must have a subscription to the DS2 Driver Performance Management service (add-on feature).
2. You must have a DS2 OBD Cable to connect to your vehicle. There are 2 types of OBD cable that work with the DS2, depending on your vehicle type (these cables are included with subscription to the DS2 Driver Performance Management service).
 - a. A light duty vehicle OBD cable is designed to work with passenger vehicles such as cars, vans, pickup trucks, etc.,
 - b. A heavy duty vehicle OBD cable is designed to work with large engine vehicles like transit buses, school buses, fire trucks, etc.



Light Duty
OBD Cable



Heavy Duty
OBD Cable

NOTE: Event Button

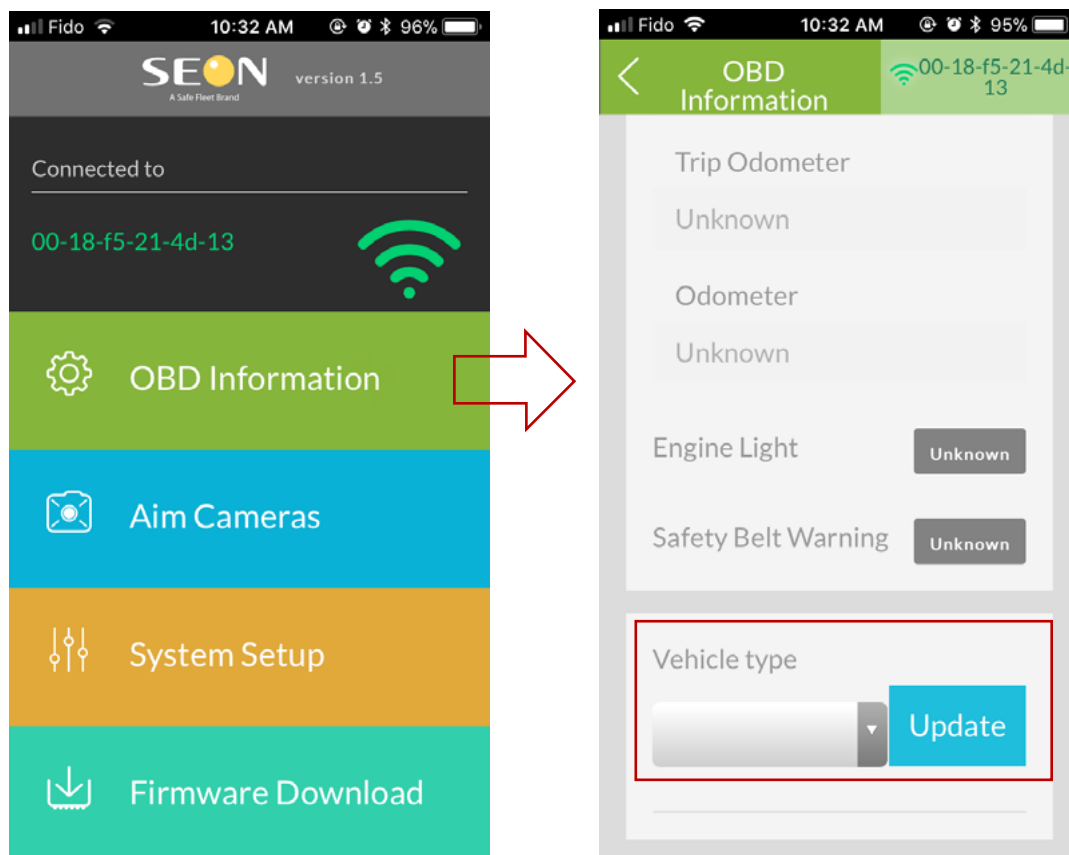


Driver Performance Management is an add-on service that uses OBD, GPS, and video data to help identify issues linked to vehicle safety and driver performance. The service monitors various metrics such as aggressive acceleration/deceleration, high fuel consumption, and distracted driving, and uses that information to create unique scorecards and reports for every driver in the fleet.

This user guide does not cover how to use the Driver Behavior service. A separate guide on Driver Behavior can be found on the Safe Fleet Community's DS2 page (<https://community.seon.com/ds2/ds2-resources/>).

To get OBD information on the config app:

- 1 Tap  **OBD Information** on the config app, then scroll to the bottom and select your **Vehicle Type** and tap **Update**.



NOTE: Event Button



The vehicle type selector is only applicable for **light** duty engine vehicles. If you're connecting to a heavy duty engine vehicle, you can ignore the vehicle type selector.

2 Verify that OBD information appears in the config app. If data appears in at least **one** of the following fields, then OBD is working:

- Fuel per Hour
- Fuel Efficiency
- RPM
- Speed
- Voltage
- Water Temperature
- Accelerator
- Trip Odometer
- Odometer

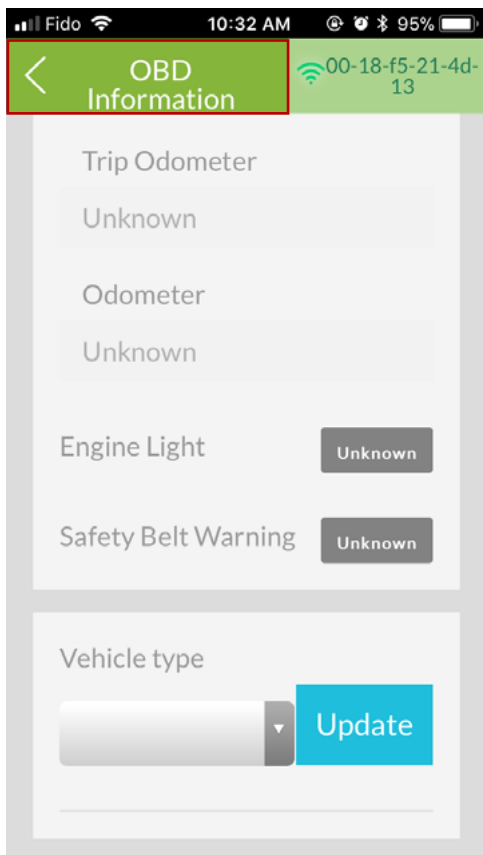
NOTE: Data might not appear



The DS2 Config App and OBD Cables are "vehicle agnostic" (meaning they are designed to work with different types of vehicles.)

Since engines differ between vehicle manufacturers, the config app might not be able to get readings in every field. This does not mean that OBD isn't working, it just means that the connected vehicle is unable to display the information.

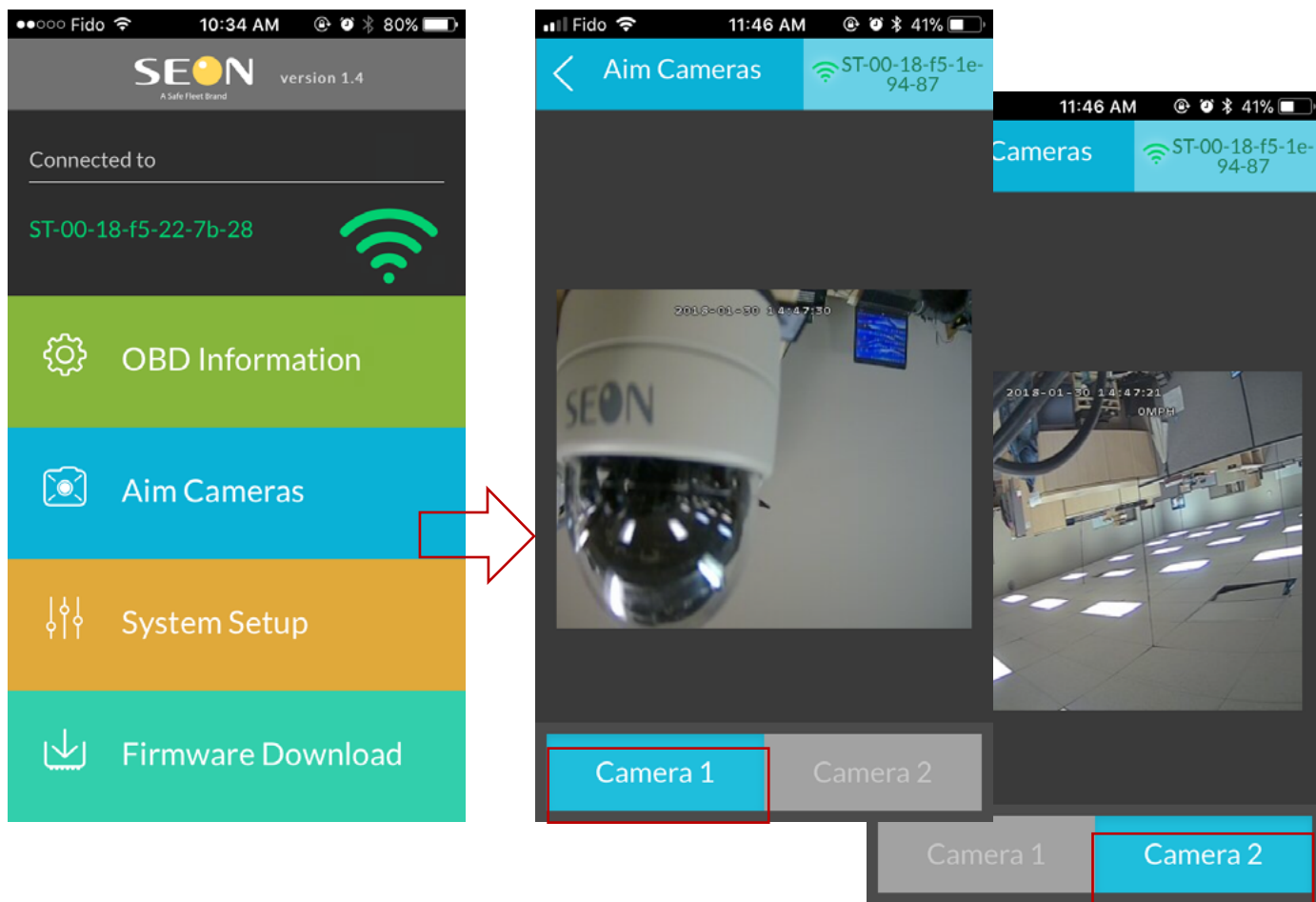
3 Tap **< OBD Information** to go back to the previous menu.



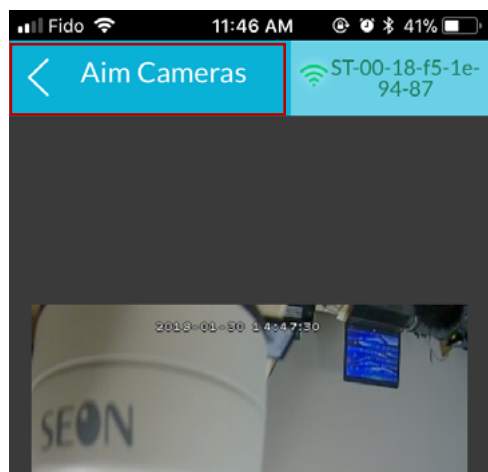
Aim Camera

The **Aim Camera** setting let's you see what each camera sees. This is useful during camera installation, as you can choose the correct mounting location **before** fastening them to the vehicle.

- 1 Tap  **Aim Cameras** on the config app. **Camera 1**'s camera appears by default. Tap **Camera 2** to switch channels.



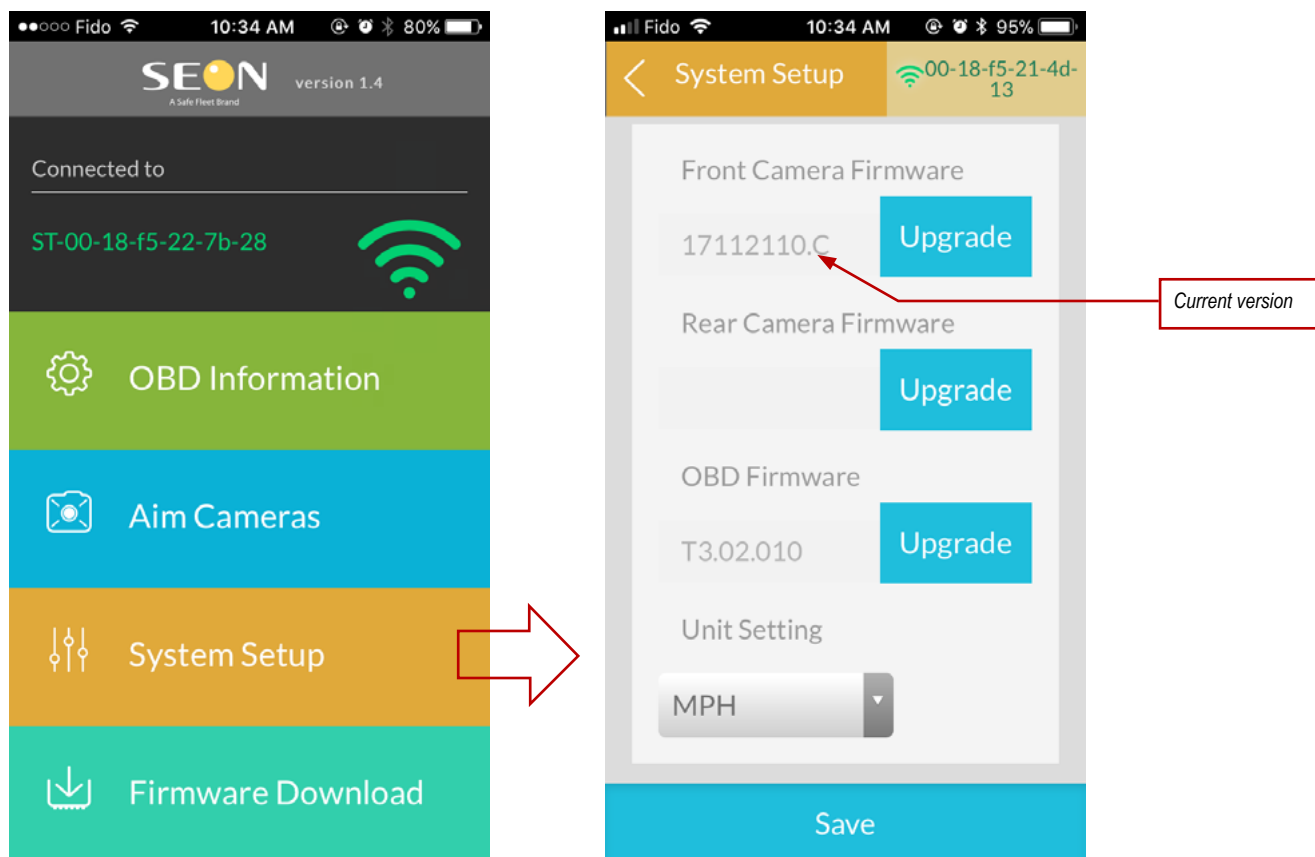
- 2 Tap  **Aim Cameras** to go back to the previous menu.



System Setup

System Setup lets you change various parameters related to your DS2.

- 1 Tap **System Setup** to view the menu options. The first options are for **Firmware Upgrade**. Here you can view the current versions of your cameras and OBD firmware, and upgrade to the latest version using the Upgrade buttons.



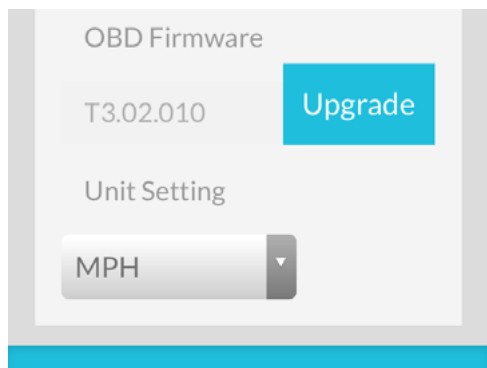
NOTE: Downloading Firmware Files



Before you can **Upgrade** the Firmware, you must first **Download** the latest versions for the Cameras and OBD. The firmware download option is NOT in **System Setup**. Instead, you'll find the options on the **Config App Login** screen.

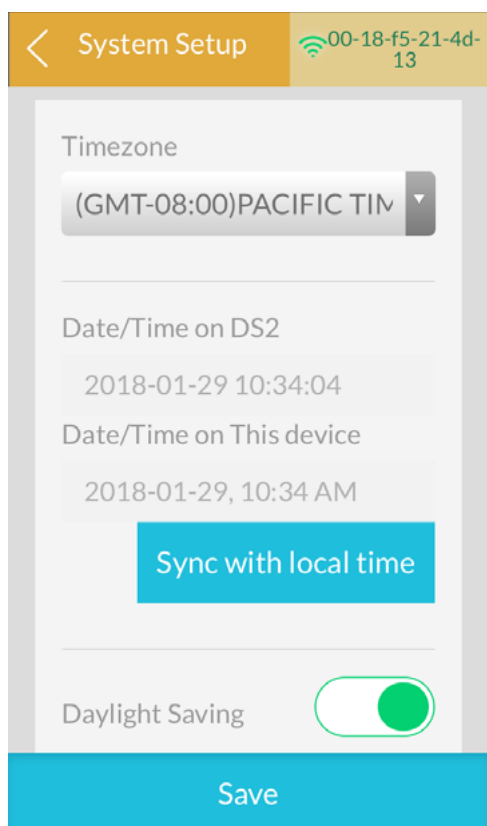
See "Downloading Firmware Updates" on page 29 for a more in-depth explanation of the FW download procedure.

- 2** Right below Firmware Upgrade, you can change your **Unit Settings**. Switch between metric and imperial units by tapping the drop-down menu.



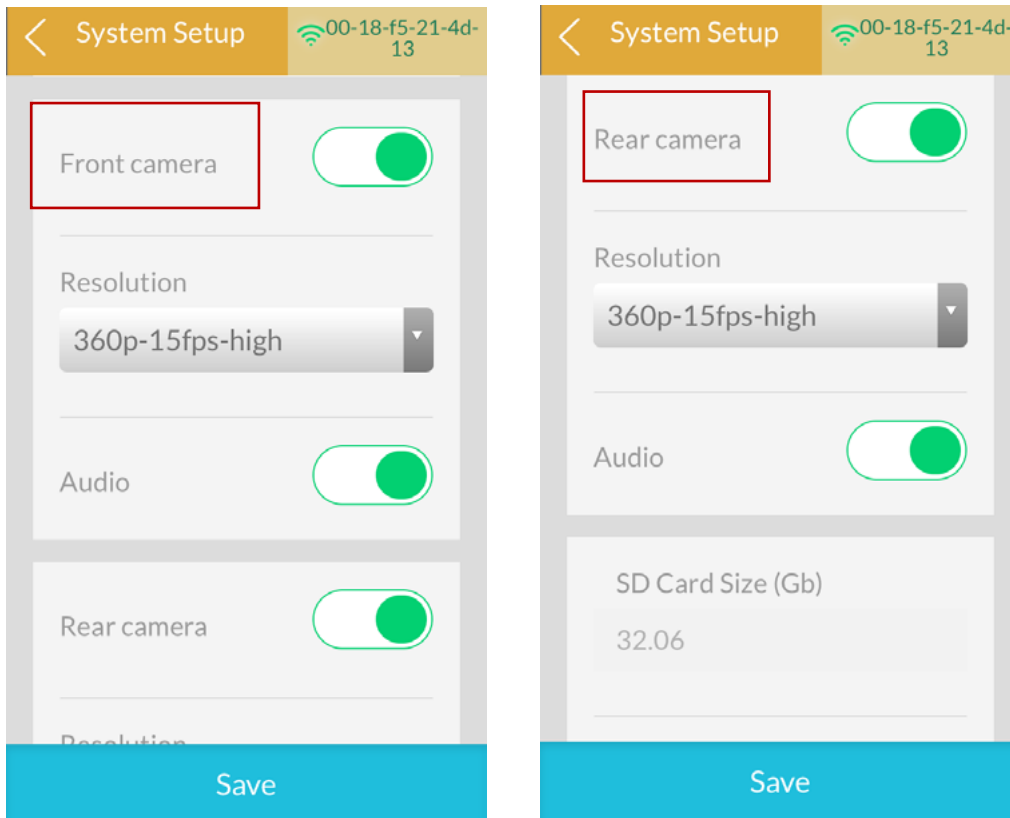
- 3** Next are the **Timezone** settings. Choose your timezone from the drop-down menu, and use the slider to disable/enable Daylight Saving time.

If your phone time is different from the DS2 device time, tap the Sync with local time button to automatically match the DS2's time to your phone.



4 The next two settings allow you to change how the **Front and Rear** cameras behave.

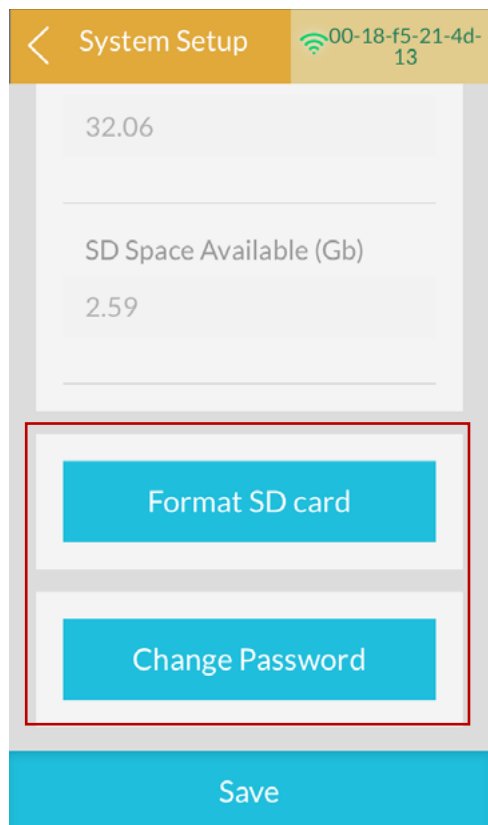
You can disable the cameras (stop recording), change resolution, and disable audio. Move the slider to the right to enable, or the left to disable any of these features.



The cameras support the following resolutions:

- 360p 15fps high
- 360p 15fps low
- 360p 30fps high
- 360p 30fps low
- 720 15fps high
- 720p 15fps low
- 720p 30fps high
- 720p 30fps low

- 5 Finally, there are the **SD and Password** options. Here is where you can **Format** the card and change the config app login **Password**.



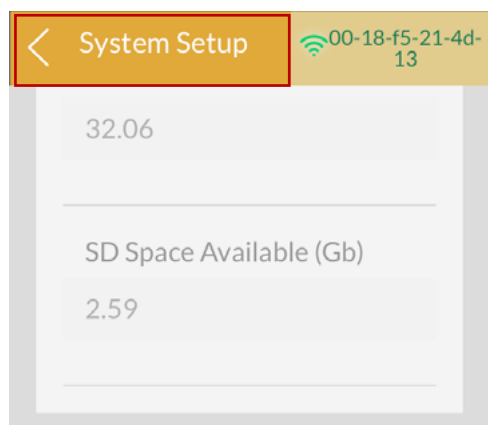
NOTE: About SD Cards



The DS2 requires a new, unformatted SD card, or a card that has been formatted using the DS2 config app, in order to work.

DO NOT use SD cards that have been formatted and used in other devices (tablets, cameras, etc.). If in doubt, always format an unknown SD card using the DS2 config app's Format SD Card option.

- 6 After you've made any changes to the system settings, tap **Save** to apply all changes. Tap the ◀ System Settings link to go back to the main menu.



Downloading Firmware Updates

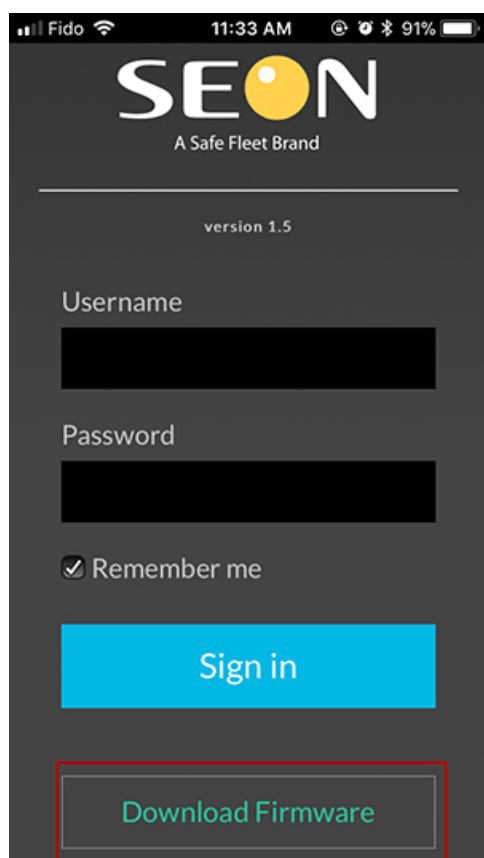
Before you can upgrade the firmware on your DS2, you'll first need to **download** the individual firmware files (for each camera and the ECU respectively).

NOTE: Establish Internet Connection First



To download the latest FW, your mobile device must have an Internet connection. Disconnect from the DS2 device (via WiFi), and connected to either a Wi-Fi or cellular network with Internet access.

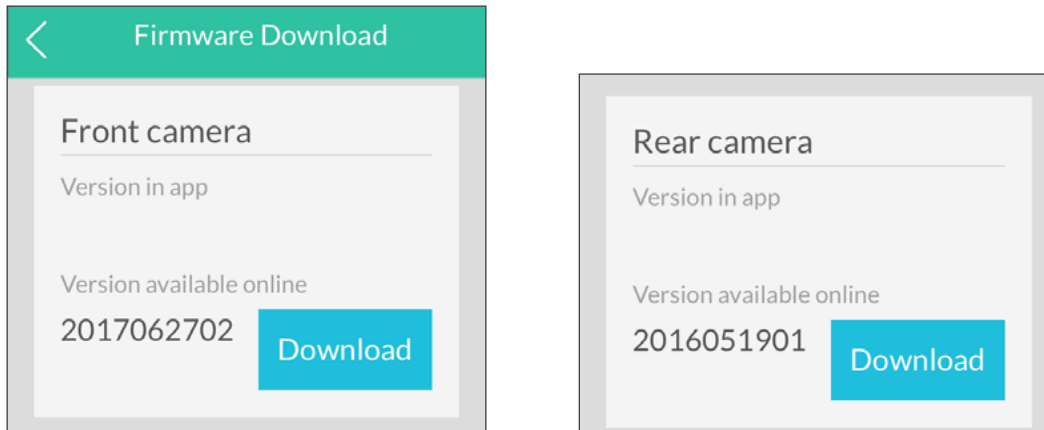
- 1 Ensure that you're logged out of the DS2 application. Tap the **Download Firmware** button located below the **Sign In** button.



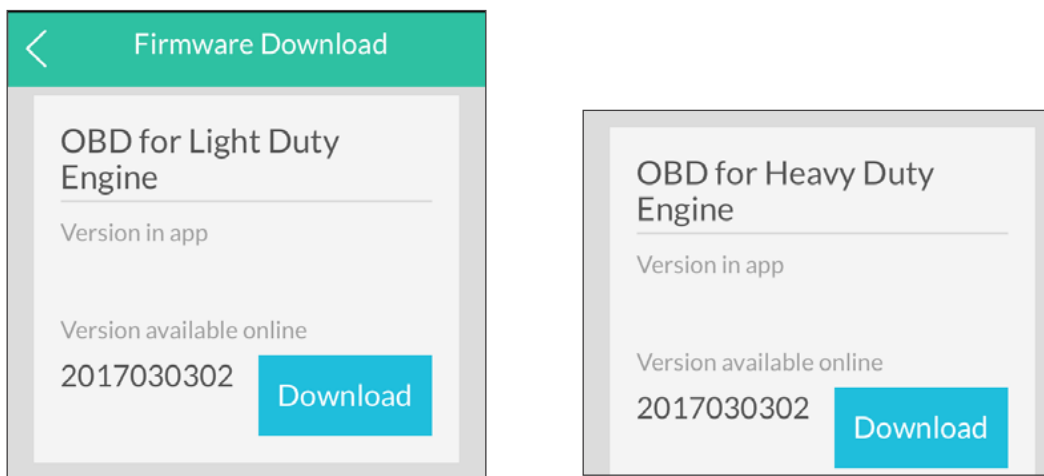
This will open up 4 download options in the FW download menu:

- Front Camera
- Rear Camera
- OBD for Light Duty Engine
- OBD for Heavy Duty Engine

- 2** For the **Front** and **Rear** cameras, tap Download to get the latest FW versions. A prompt will appear when your download is complete.



- 3** For DS2 units equipped with an OBD cable, download the FW for either Light Duty or Heavy Duty engine types (or both). This FW will allow the ECU to read OBD data via the OBD cable. If you do not have an OBD cable, skip this step.



TIP: Downloading both OBD types

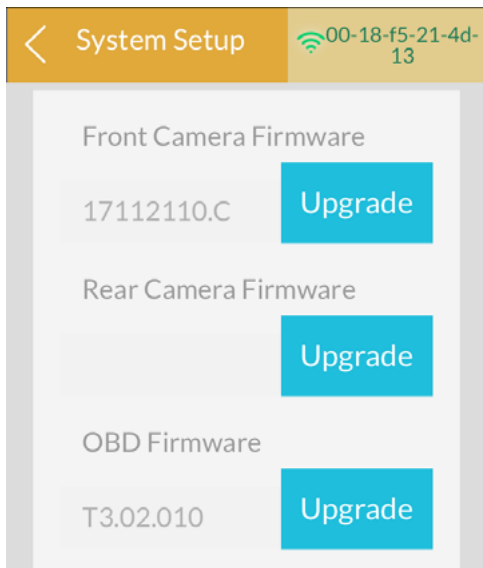


Since firmware files are relatively small (less than 200 kB each), it's more efficient to download both files to your phone. By having both files on your phone, you can easily upgrade the OBD firmware for any vehicle in the fleet from a single device, regardless of engine type.

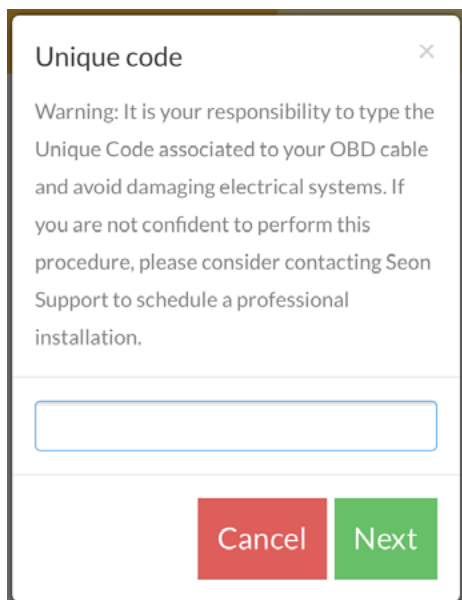
Upgrading firmware on your DS2

Once the FW files get downloaded to your phone, you'll need to transfer them to the DS2 unit to apply the update. Ensure that you're disconnected from the Internet, and re-connected to the DS2 unit.

- 1 Log into the DS2 configuration app and go to **System Setup**.
- 2 Upgrade the firmware by tapping each of the **Upgrade** buttons.



- 3 When updating OBD firmware, you'll be asked to enter a unique code for the OBD firmware update.
 - a. If upgrading OBD for a light duty engine vehicle, enter the code: 17144
 - b. If upgrading OBD for a heavy duty engine vehicle, enter the code: 36199

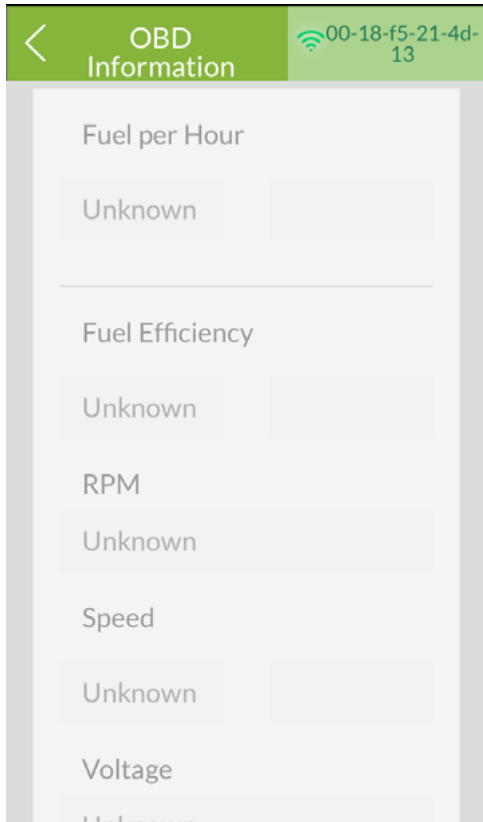


NOTE: Entering wrong code

Entering the wrong code can cause the DS2 to stop reading OBD information altogether. Always ensure that you're entering the correct code for the type of vehicle.

If you entered the wrong code by mistake, you can easily overwrite by re-entering the proper code.

- 4 Once FW is updated, return to the main menu by tapping **< System Setup**.
- 5 Tap **OBD Information** from the main menu and verify that OBD data appears. If there is OBD data in any field, then the firmware update was successful.



- 6 Once OBD data is verified, log out by closing the app on your phone.

Support Information

FRC Customer Service and Product Support:

(8am to 5pm EST weekdays)

- Main Phone: 631.724.8888
- Fax: 631.360.9727 (24 hours)
- Website: [Contact FRC](#)

If your DS2 unit is to be returned, please contact Technical Support, and provide the model and/or serial number of your unit. Ask for a Return Merchandise Authorization (RMA) number. An RMA number allows the Service Technicians to better track your product when it comes in for service. Please show the RMA number on the outside of the package. ANY RETURNED PRODUCT WITHOUT AvN RMA NUMBER MAY BE REFUSED.

Product Information

For product information and documentation related to the DS2, please visit the inView Guardian product page on the [FRC Website](#).

Or, for additional information, you may wish to visit [Safe Fleet Community's DS2 product page](#). Please contact FRC Service for the username and password to this online help community website. If you do not have access credentials, please contact Technical Support.

Warranty

Complete warranty details are available online:

[FRC Limited Warranty Page](#)