

# CP2 CONFIGURATION TOOL GUIDE v 3.8.0

*A jumpstart to video  
telematics  
configuration*

  
Sensata  
Technologies

 SMARTWITNESS<sup>®</sup>



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## Introduction

### 1 Welcome to Your CP2 Configuration Guide

This guide aims to inform users of the proper processes involved in setting up your Sensata | SmartWitness CP2 device.

This step-by-step walkthrough will act as your teacher as you learn our product's layout, functionality, and configuration settings. Each section shown in this guide features the CP2's default settings.

You can find an overview of the configuration tool's layout in [section 3](#).

The fastest way to find information in this document is through the Table of Contents.

We hope this training document will remove common end-user pain points involved with the setup process. If you experience any issues with this guide, please lend us your feedback and/or contact our [support](#) teams.

**Note:** Use this configuration guide with at least version 3.8.0.0 of the CP2 Configuration Tool. Content in this guide was released in coordination with CP2 firmware version 3.8.0.

## CP2 Download & Installation

### 2 CP2 Configuration Tool Installation

**Goal:** Find your configuration wizard and learn about your device's capabilities

#### 2.1 Downloading & Installing Your Configuration Tool

- Download configuration software [here](#).



1. After downloading, proceed to installation.
2. Open the configuration tool and insert your SD card\*.
3. Click **Initialize SD Card**.
4. Select the **SD Card** from your preferred internet browser.
5. Click **Start** to initialize.

**Note:** SD cards from Sensata | SmartWitness come pre-installed and initialized.

\*The maximum size supported for your SD card is 128 GB.

# CP2 Configuration Tool Layout

## 3 Configuration Tool Layout & Settings

**Goal:** Understand your tool's main features

The screenshot shows the 'Configuration Tool' window with several callouts:

- Settings Tabs designate major areas of configuration:** Points to the tabs: Device, Record, Event, Info., Connectivity, and Server.
- Some settings sub-fields use checkboxes:** Points to the checkboxes for CAM1 and CAM2 in the Camera section.
- Some settings sub-fields use text fields:** Points to the text input fields for Camera Title (CAM1, CAM2).
- Some settings sub-fields use drop-down selection:** Points to the Video Type dropdown menu (NTSC).
- Click 'About' to see configuration tool version information:** Points to the About button.
- Click 'Settings' to change the language:** Points to the Settings button.
- Click 'Initialize SD Card' to prepare SD card:** Points to the Initialize SD Card button.
- Click 'Open' to load a previously saved configuration:** Points to the Open button.
- Click 'Save' after each settings tab configuration:** Points to the Save button.
- Click 'Eject SD Card' at the end of the configuration process:** Points to the Eject SD Card button.

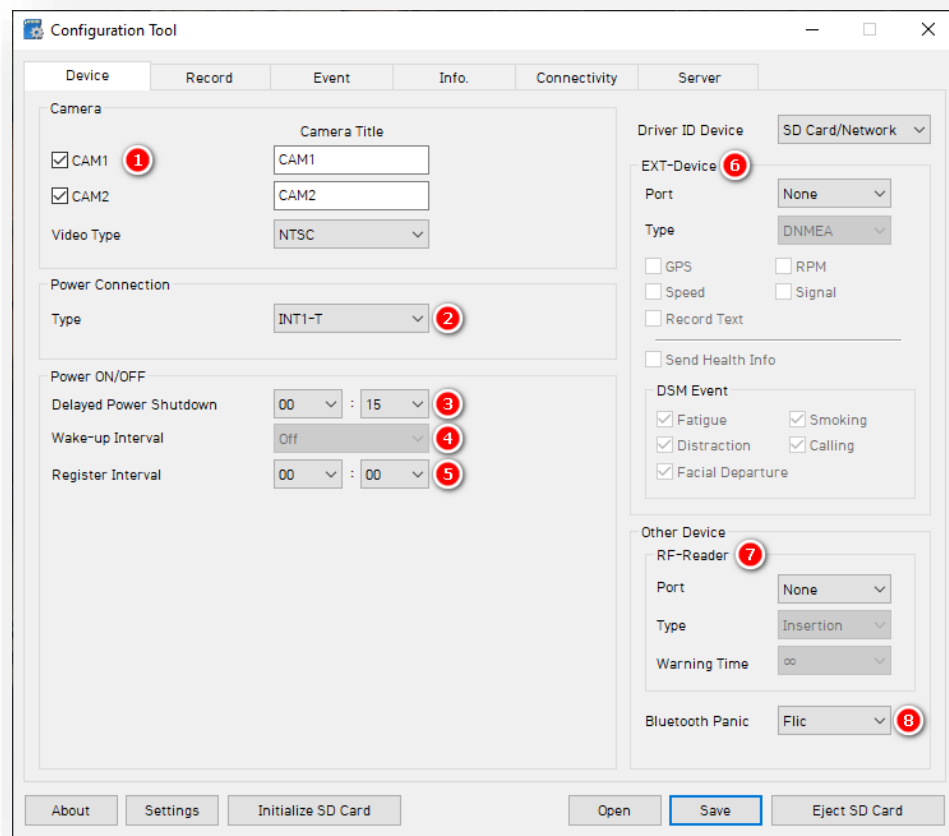
# Device

## 4 Configure your Device

**Goal:** Personalize and optimize device settings

### 4.1 How to Configure Device Tab

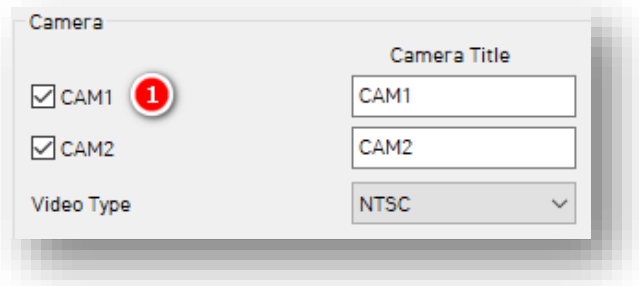
**Device Tab Layout: At a glance**



## Device

### Camera

1. Activate both primary and secondary cameras by checking **CAM 1** and **CAM 2**.
  - Set the second camera video standard via **Video Type**.
  - NTSC is the default for 5V Sensata | SmartWitness driver-facing cameras.



Camera

Camera Title

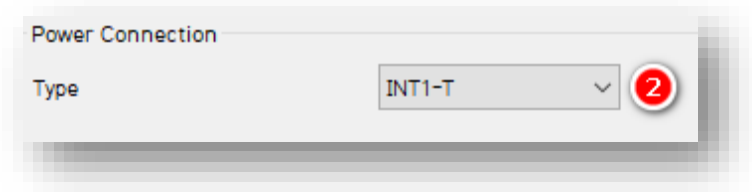
CAM1 1

CAM2

Video Type

### Power Connection

2. Select the device's power **type** from the dropdown options.
  - INT1-T is CP2's standard.



Power Connection

Type

## Device

### Power On/Off

3. Select the time your CP2 remains on after ignition off via **Delayed Power Shutdown's** dropdown options.
4. Set the time, or **Wake-up Interval**, until your CP2 powers on again after shutting down.
5. Set the time, or **Register Interval**, that your CP2 stays on during its Wake-up Interval.

Power ON/OFF

Delayed Power Shutdown 00 : 15 3

Wake-up Interval Off 4

Register Interval 00 : 00 5

### EXT-Device

6. To allow external devices to work with your device, select from **EXT – Device's** list of accessory devices and relevant data points. Add-ons connect to the device's serial input once you choose the **S1** port.

EXT-Device 6

Port None

Type DNMEA

GPS  RPM

Speed  Signal

Record Text

Send Health Info

DSM Event

Sleeping  Smoking

Distraction  Calling

Facial Departure

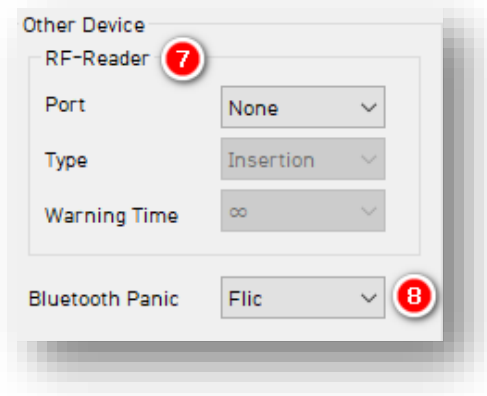
**Note:** DSM event access requires specific “Driver State Monitoring” AI camera models like KP2.



## Device

### Other Device

7. **(Optional)** Set up an accessory device (RF or Radio Frequency Reader) that connects to the serial input. Designate the reader **Type** and **Warning Time**.
8. Allow your device to operate with a wireless **Bluetooth Panic** button. Locate setup specifications [here](#).

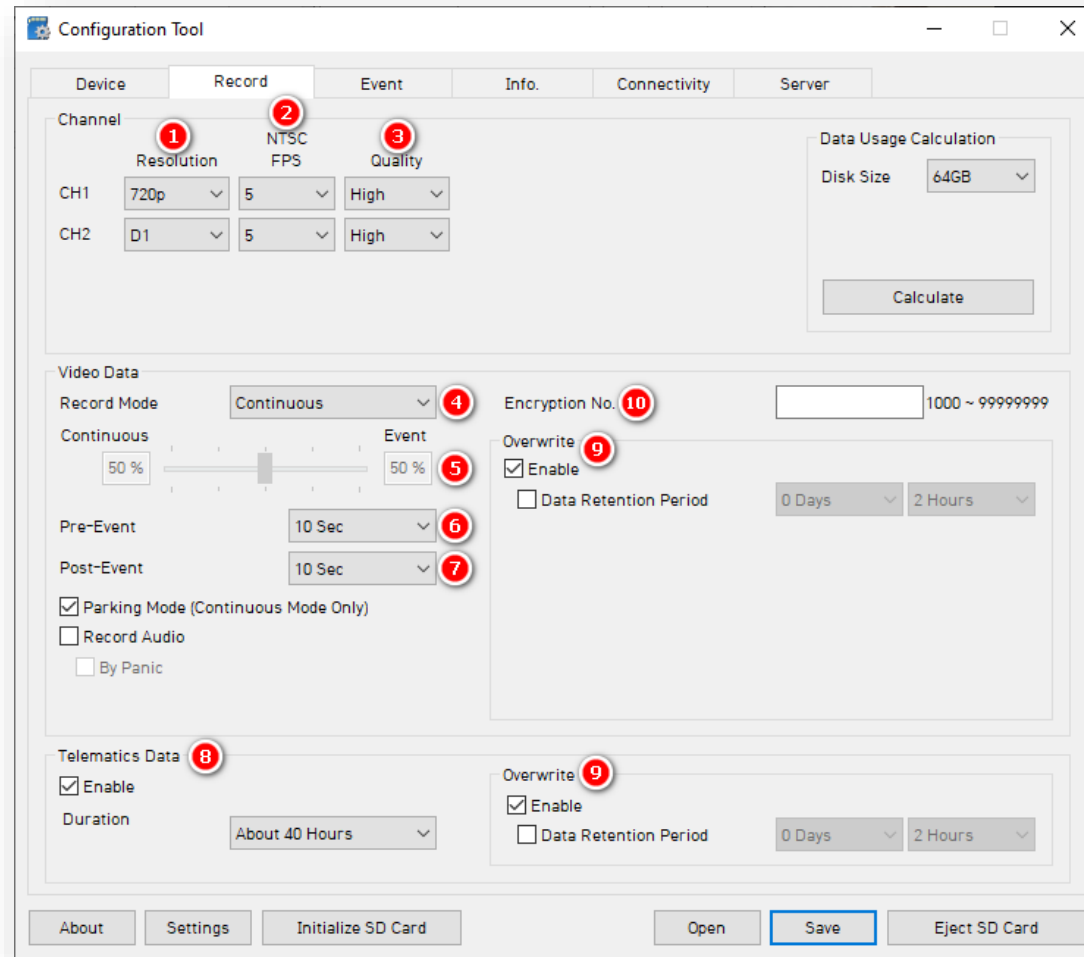


**Note:** Contact Sensata | SmartWitness about RFID system compatibility. Sensata | SmartWitness' SmartID replaces the need for RFID systems to manage driver identification.

# Record

## 4.2 How to Configure Record Tab

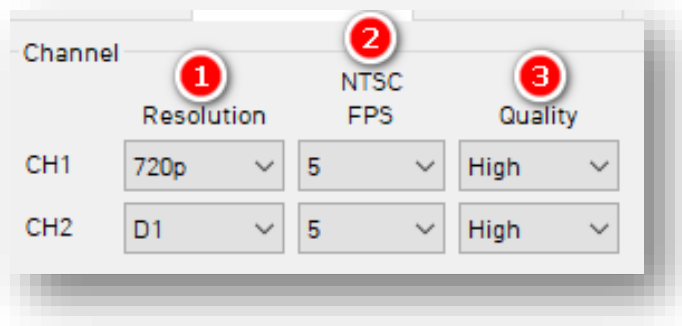
### Record Tab Layout: At a Glance



## Record

### Channel

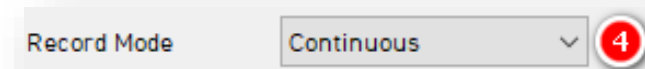
1. Select your **Resolution** from the following options:
  - CH1: **VGA**, HD (**720p**), FHD (**1080p**).
  - CH2: **D1** (720 x 480).
2. Select from the following **Frame Rate (FPS)** options:
  - **30, 15, 10, 5, 4, 3, 2, 1** and **0**.
3. Choose your default video **Quality** from the following:
  - **Normal, High** or **Super** Bitrate. Higher-quality video contains more detail but consumes more storage space on the SD card.



### Video Data

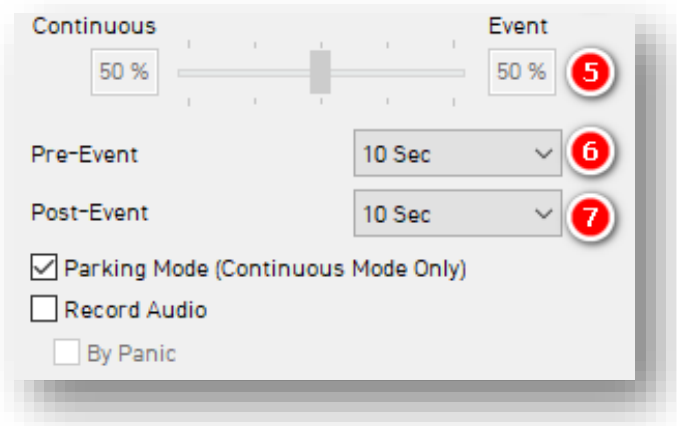
Select your preferred **Record Mode** from the following:

- **Event:** Events only. The pre & post-event setting determines settings.
- **Continuous** (Default): Video continuously records, with no events recorded separately on the SD card (Events are still sent to SmartAPI if configured in the [Server](#) tab). This setting renders pre and post-event capture settings void.
- **Continuous+Event:** Video continuously records at 1 FPS. Events will record at your specified FPS.



## Record

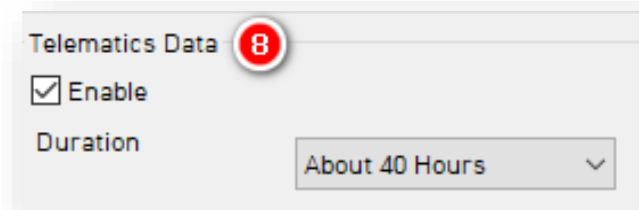
5. If you choose **Continuous + Event** mode, set the SD card's ratio of video data recording.
6. Determine the time video records before an event and set your **Pre-Event Setting**.
7. To set the time video records after the event, choose your **Post-Event Setting**.



**Note:** Pre/post time settings do not apply to “Continuous” record mode.  
**Parking Mode** reduces FPS to 1 when the vehicle idles for 5 min.

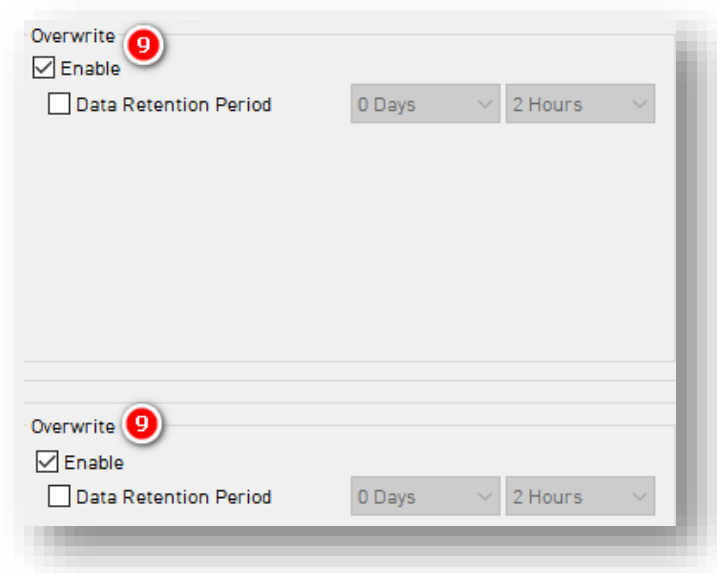
## Telematics Data

8. Set the duration of your DRV Storage by clicking **Enable** and selecting **Duration**. DRV files record and are stored from video/event logs separately.

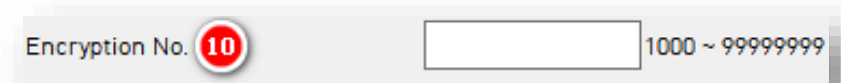


## Record

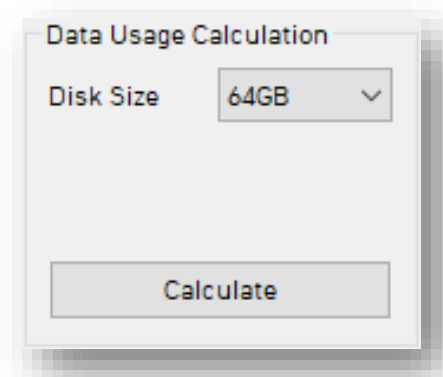
- To turn on the device's overwrite feature, click **Enable**. This automatically rewrites SD card video footage and telematics data.
  - Data Retention Period** determines how long video and telematics data remains on the SD card before being rewritten.



- Protect SD card data from being easily viewable by entering an 8-digit **Encryption No.**



**Note:** Use the **Data Usage Calculation** to estimate your SD card's storage capacity based on your applied recording settings.

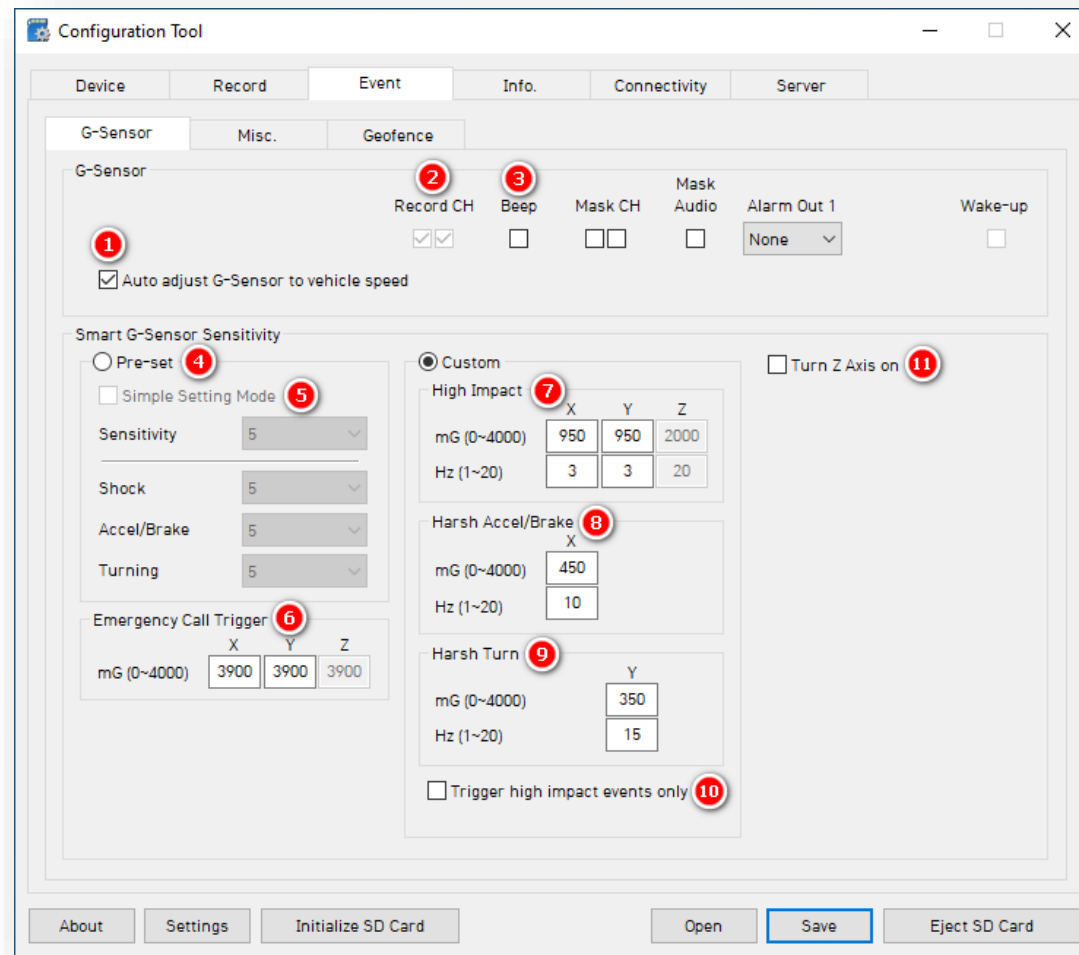


# Event

## 4.3 How to Configure Event Tab

### 4.3.1 G-Sensor Fields

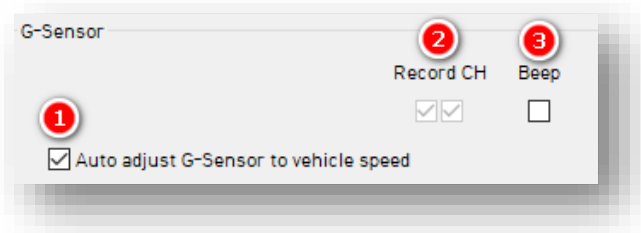
#### Event > G-Sensor Tab Layout: At A Glance



## Event

### G-Sensor

1. Automatically scale G-Sensor speed thresholds by clicking **Auto adjust G-Sensor to vehicle speed**. This increases your G-Sensor event threshold on each axis by 300mcg when your vehicle speed exceeds 20 km/h.
2. Turn on/off event recording for cameras 1 and 2 by checking **Record CH**.
  - Only available for Event and Continuous + Event mode.
3. To enable in-vehicle notifications for G-Sensor event triggers, click **Beep**.

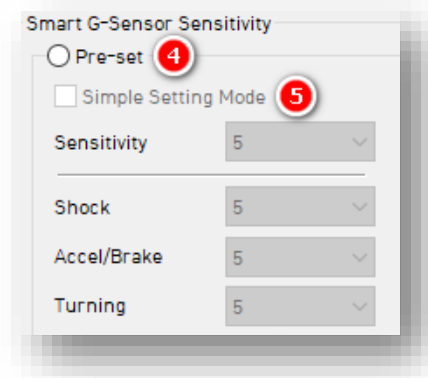


**Note:** Individual selection of camera channels disables when your device is in “Continuous” mode.

### Smart G-Sensor Sensitivity

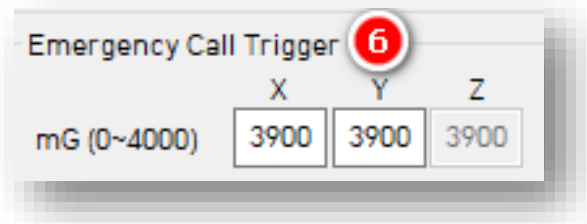
Determine your G-Sensor sensitivity with **Pre-Set** or **Custom** options.

4. To set general sensitivity settings, check **Pre-Set**. Lower sensitivities result in fewer G-Sensor-related events. Higher sensitivities result in more events.
  - Disable **Simple Setting Mode** to set **Shock, Accel/Brake** and **Turning** settings.
5. To set an overall G-Sensor sensitivity, click **Simple Setting Mode**, then **Sensitivity**.



## Event > G-Sensor

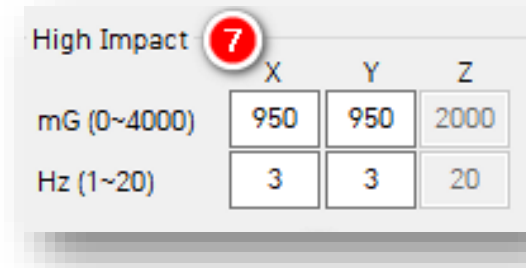
- Events generate when the X, Y or Z axis acceleration exceeds the set G-Sensor threshold for **Emergency Call Trigger** (Severe Shock).



## Custom

Click **Custom** to set personalized G-Sensor sensitivity settings.

- High Impact** events occur if acceleration exceeds the X, Y or Z axis threshold (Activate the Z axis via **Turn Z Axis on**).

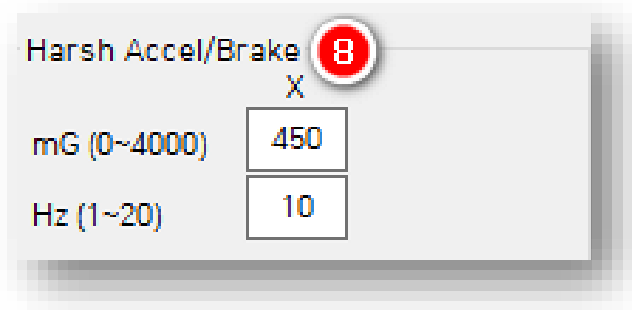


**Note:** Hz values set the number of times in a row the device's G-Sensor must exceed the X, Y or Z thresholds to trigger a harsh event. "Simple Setting Mode" is fixed at 1Hz. "Custom" is adjustable.



## Event > G-Sensor

8. **Harsh Accel/Brake** events generate if acceleration exceeds the X axis threshold.



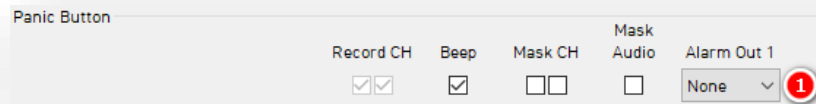
9. **Harsh Turn** events occur if acceleration exceeds the Y axis threshold.
10. Check **High Impact Trigger** to limit alerts to high-impact events. This disables Accel/Brake and Turn events.

## Event > Misc.

### 4.3.2 Misc. Fields

#### Panic Button

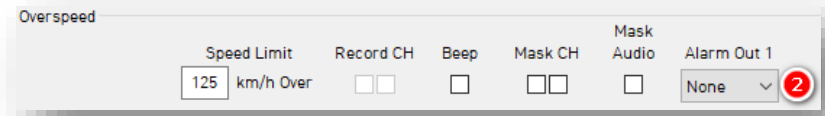
1. Determine your **Panic Button** response settings.
  - Turn on audible in-cabin notifications for panic events by selecting **Beep**.
  - **Alarm Out** sends a 5V output through Alarm Out (Yellow Wire).



The screenshot shows the 'Panic Button' settings panel. It includes the following controls: 'Record CH' with two checked checkboxes, 'Beep' with one checked checkbox, 'Mask CH' with two unchecked checkboxes, 'Mask Audio' with one unchecked checkbox, and 'Alarm Out 1' with a dropdown menu set to 'None'. A red circle with the number '1' is positioned to the right of the 'Alarm Out 1' dropdown.

#### Overspeed

2. Set your speed threshold in the **Speed Limit** field for recording Overspeed events.
  - Accounts for vehicle speed, not regional speed limits.

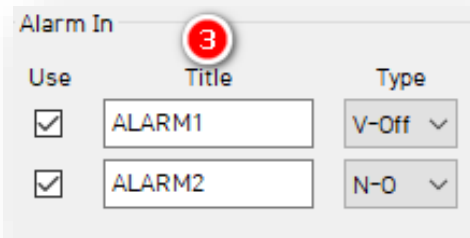


The screenshot shows the 'Overspeed' settings panel. It includes the following controls: 'Speed Limit' with a text input field containing '125' and the label 'km/h Over', 'Record CH' with two unchecked checkboxes, 'Beep' with one unchecked checkbox, 'Mask CH' with two unchecked checkboxes, 'Mask Audio' with one unchecked checkbox, and 'Alarm Out 1' with a dropdown menu set to 'None'. A red circle with the number '2' is positioned to the right of the 'Alarm Out 1' dropdown.

## Event > Misc.

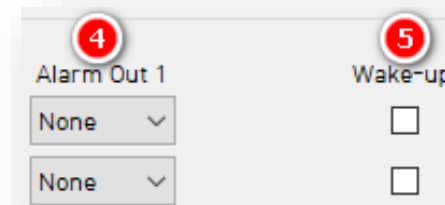
### Alarm-In

- To set your optional alarm input triggers, check **Use**. Label them in the **Title** field according to your input type (i.e., doors, horn, lights, etc.).
  - **Alarm 1** = Orange Wire
  - **Alarm 2** = Green Wire
  - **Input Types:**
    - **N-C** (Normally Closed Circuit)
    - **N-O** (Normally Open Circuit)
    - **V-On/Off** (12V)



Use	Title	Type
<input checked="" type="checkbox"/>	ALARM1	V-Off
<input checked="" type="checkbox"/>	ALARM2	N-O

- Select the alarm duration for a third-party device from **Alarm Out 1**.
  - Sends a 5V output through the Yellow Wire to your 3<sup>rd</sup> party device.
- Turn on CP2 when an Alarm Input triggers by enabling **Wake-up**.
  - CP2 stays on for the time set in [Register Interval](#).



Alarm Out 1	Wake-up
None	<input type="checkbox"/>
None	<input type="checkbox"/>

## Event > Misc.

### EXT-Signal

6. Signal events are reserved for RS232 accessory devices with their own event triggers (like an ADAS or DSM camera). This allows CP2 to configure recording, masking and display rules for accessory devices. EXT-Signal serves no purpose beyond RS232 accessory devices.

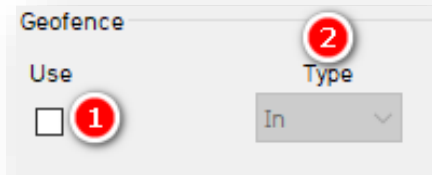
EXT-Signal <span style="border: 1px solid red; border-radius: 50%; padding: 2px;">6</span>		Record CH	Beep	Mask CH	Mask Audio	Alarm Out 1	Alarm Out 2
Use	Title						
<input type="checkbox"/>	LEFT	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	None ▾	None ▾
<input type="checkbox"/>	RIGHT	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	None ▾	None ▾
<input type="checkbox"/>	BRAKE	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	None ▾	None ▾
<input type="checkbox"/>	REVERSE	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	None ▾	None ▾

## Event > Geofence

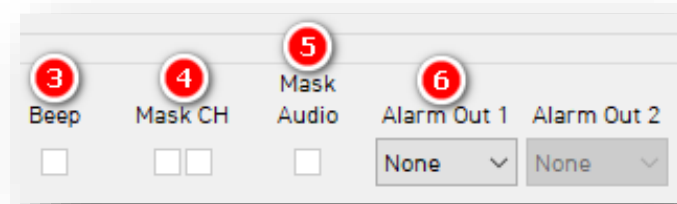
### 4.3.3 Geofence Fields

Set virtual boundaries for your device to record events. Optionally, obscure your camera's field of vision and audio recording.

1. To enable your device's Geofence, click **Use**.
2. Select the **Type** of Geofence.
  - **In** activates a Geofence when the vehicle *enters* the geographic boundary.
  - **Out** triggers when the vehicle *exits* the geographic boundary.



3. Audibly notify drivers that they have crossed the Geofence's boundary by clicking **Beep**.
4. To obscure camera channels 1 & 2, check **Mask CH**.
5. To prevent the device's audio recording, check **Mask Audio**.
6. Set the alarm's duration for a third-party device from **Alarm Out 1**.



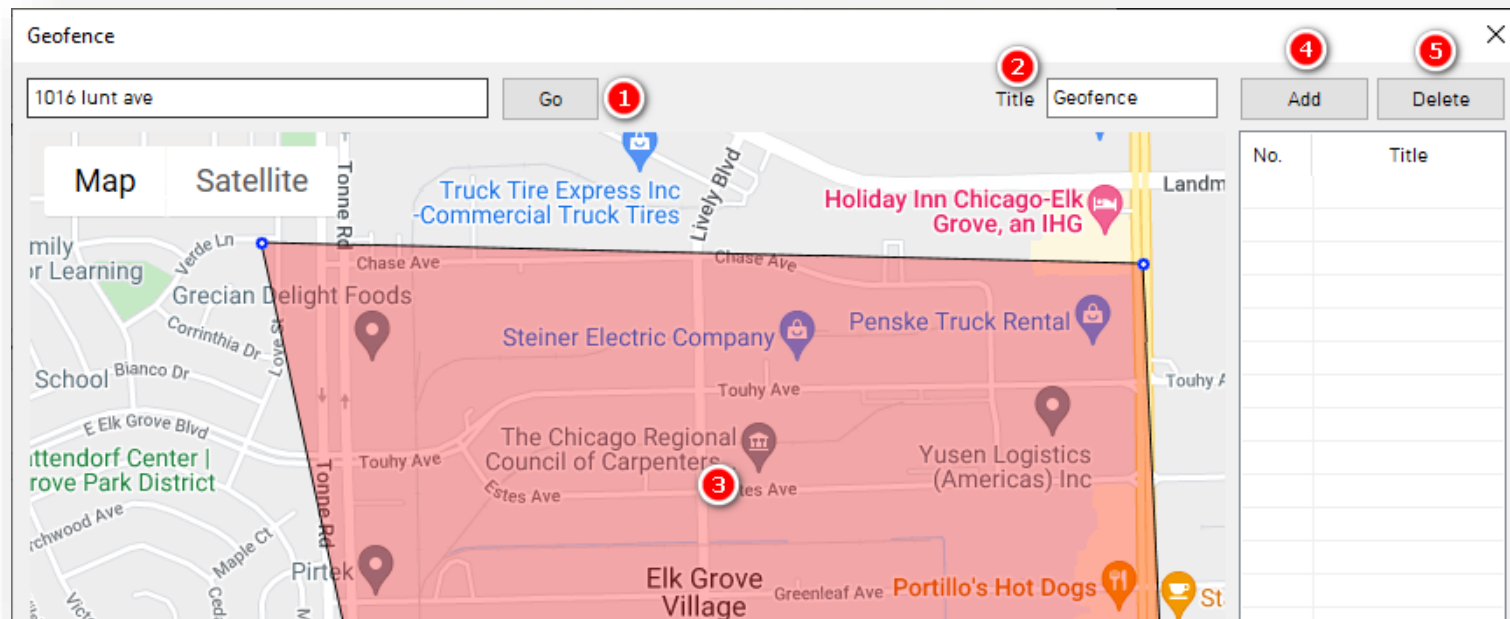
## Event > Geofence

### Zone Selection

To set geofence boundaries on Google Maps, click on **Zone Selection**. You may set up 20 geofence zones.

1. Search for the geographic region by entering an address into the text field, and clicking **Go**.

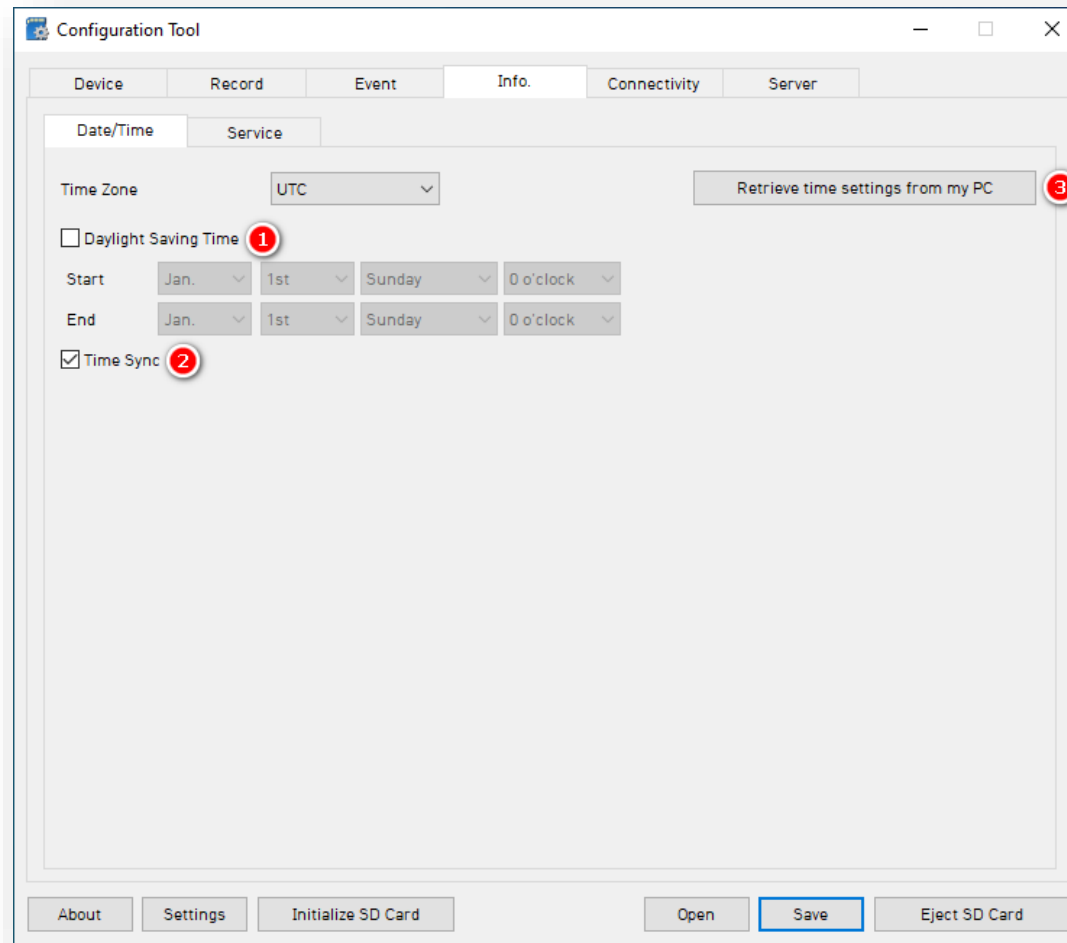
2. Change the name of your Geofence in the **Title** text field.
3. To set a location-specific perimeter, click on the map.
  - The area in **Red** is your Geofence.
4. Enable your Geofence by clicking **Add**.
5. To remove a Geofence, check the Geofence **No.** and click **Delete**.



# Info

## 4.4 How to Configure Info Tab

### Info Tab Layout: At a Glance

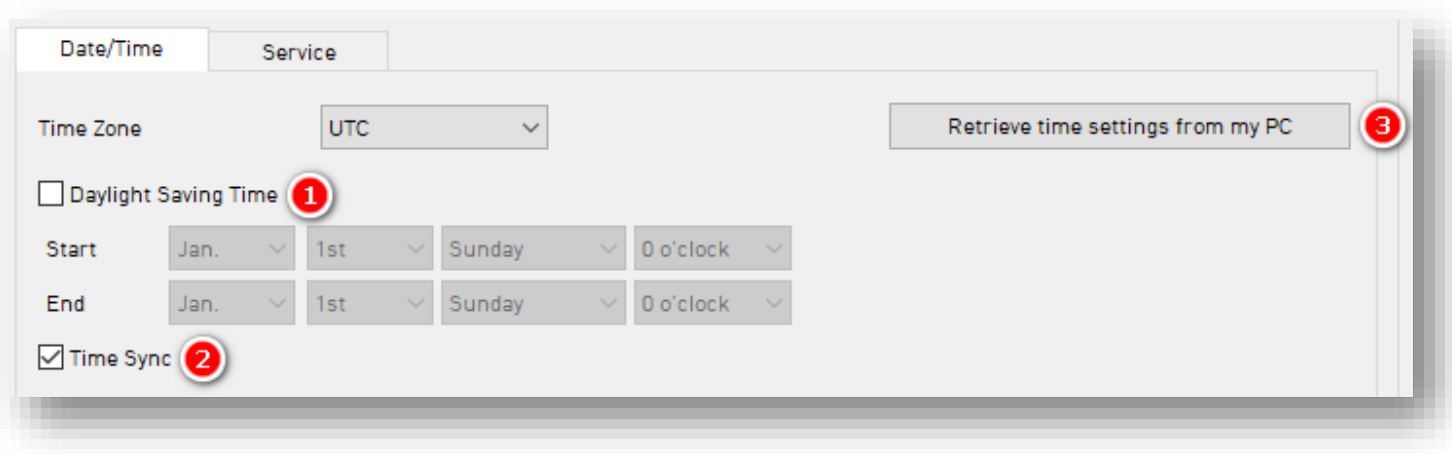


## Info > Date/Time

### 4.4.1 Date/Time Fields

Setting time preferences on your CP2 is **not recommended**. PC Viewer software and Smart API automatically adjust UTC to your local time zone. **If you've connected your CP2 to Smart API, do not set time preferences.**

1. Set a customized date and time range for **Daylight Savings Time**.
2. Ensure GPS time syncs with device OS time by clicking **Time Sync**.
3. Use PC Viewer software to set your device's time zone by clicking **Retrieve time settings from my PC**.



The screenshot shows the 'Date/Time' settings panel. At the top, there are two tabs: 'Date/Time' and 'Service'. Below the tabs, the 'Time Zone' is set to 'UTC' in a dropdown menu. To the right of this is a button labeled 'Retrieve time settings from my PC' with a red circle containing the number '3' next to it. Below the 'Time Zone' section, there is a checkbox for 'Daylight Saving Time' which is currently unchecked, with a red circle containing the number '1' next to it. Underneath this are two rows of settings for 'Start' and 'End'. Each row has four dropdown menus: the first for the month (both set to 'Jan.'), the second for the day (both set to '1st'), the third for the day of the week (both set to 'Sunday'), and the fourth for the time (both set to '0 o'clock'). At the bottom, there is a checked checkbox for 'Time Sync' with a red circle containing the number '2' next to it.

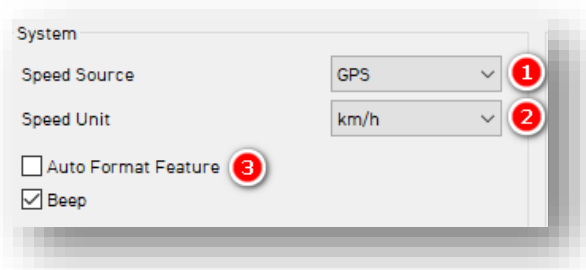


## Info > Service

### 4.4.2 Service Fields

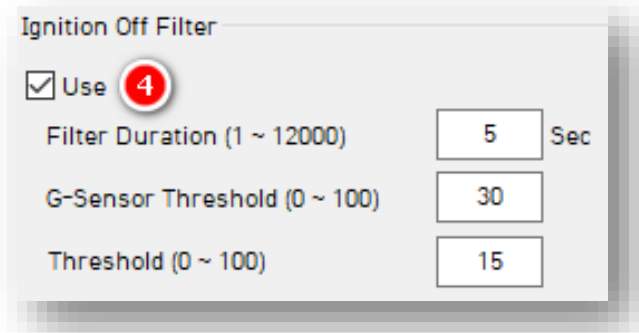
#### System

1. Determine how your device reads vehicle speed by choosing a **Speed Source**.
2. Set a **Speed Unit**.
3. CP2 automates necessary SD card maintenance when the **Auto Format Feature** is on.
  - This feature formats blank SD cards automatically.
  - It will not format corrupted SDs. Instead, the device sends a “Media Error” event to the server. The red LED and an optional audible alarm (See [System Warning](#)) will turn on.



#### Ignition Off Filter

4. Turn on the Ignition Off filter by clicking **Use**.
  - Set the time the device maintains ignition on operations with **Filter Duration**.
  - Set the value the **G-Sensor Threshold** must exceed to retain ignition on feature functionality.
  - To prevent false ignition off events, set the **Threshold** value.

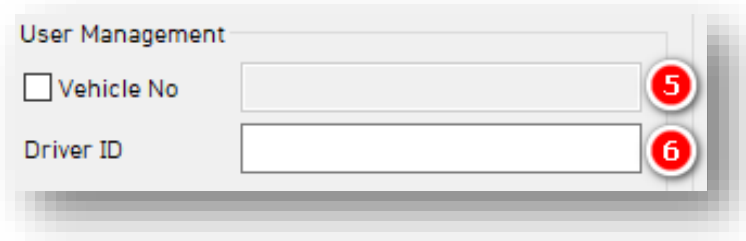


## Info > Service

### User Management

5. Assign a number to your vehicle by checking **Vehicle No** and entering a numerical value.
6. Write a unique **Driver ID** in the text field for different vehicles.

**Note:** You can watermark **Vehicle No** & **Driver ID** on your MP4 converted video feed with desktop analysis software.



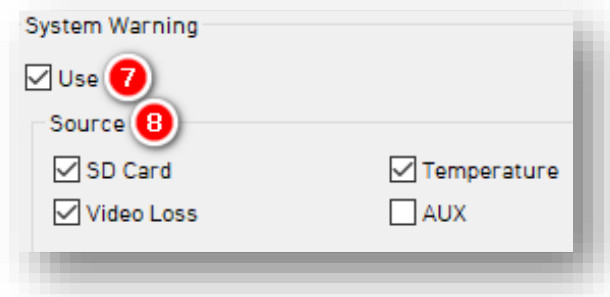
User Management

Vehicle No

Driver ID

### System Warning

7. Provide notifications concerning system component corruption and/or failure by checking **Use**.
8. Check any/all boxes to send alerts of system corruption and/or failure.



System Warning

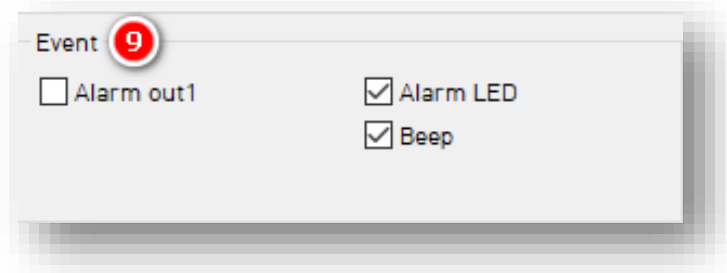
Use

Source

SD Card  Temperature

Video Loss  AUX

9. To enable these event notifications, click **Alarm out1**, **Beep** and **Alarm LED**.



Event

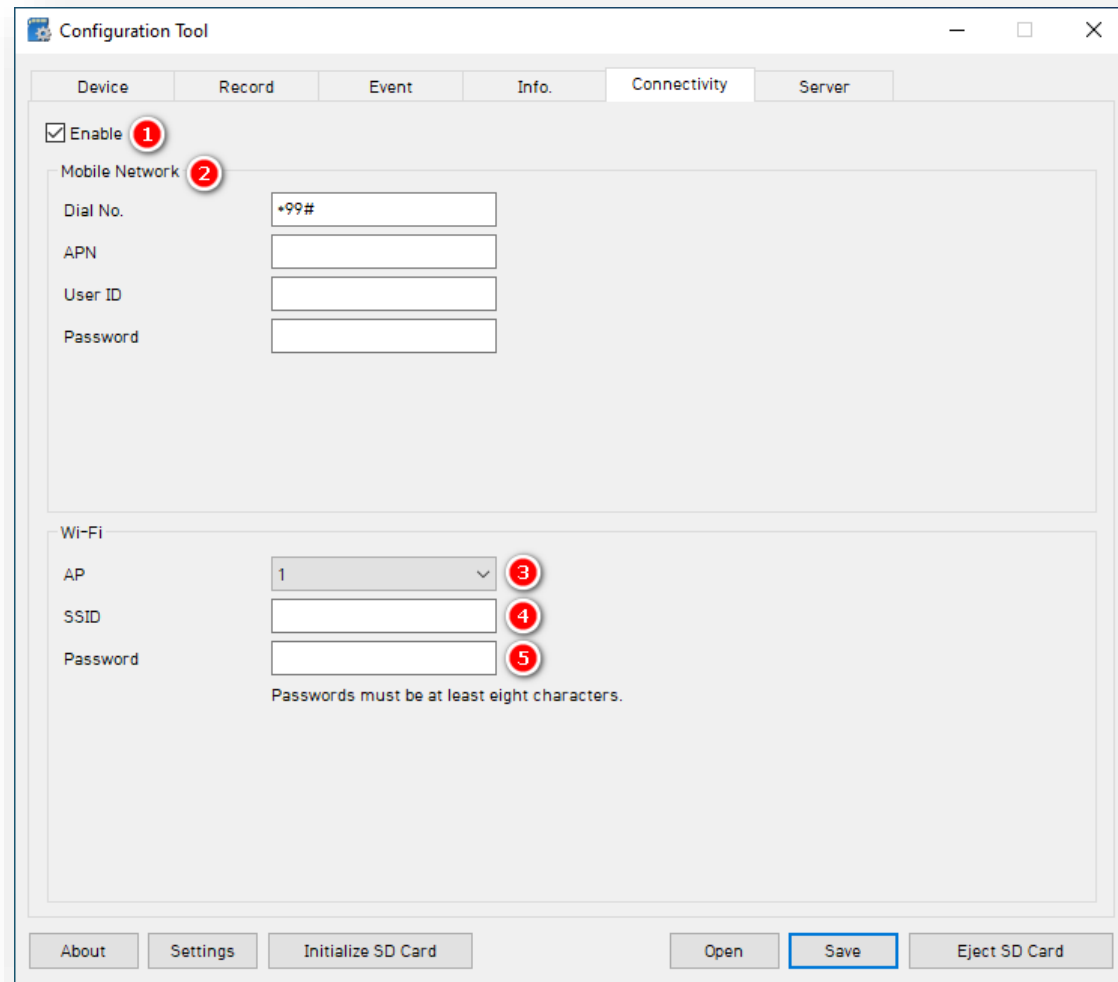
Alarm out1  Alarm LED

Beep

# Connectivity

## 4.5 How to Configure Connectivity Tab

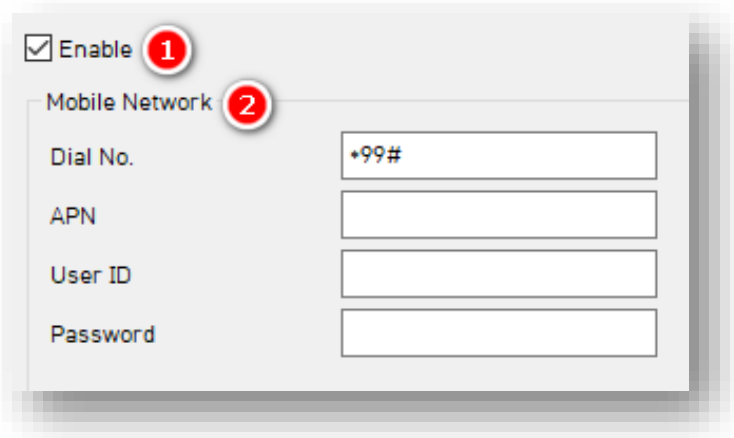
### Connectivity Tab Layout: At A Glance



# Connectivity

## Mobile Network

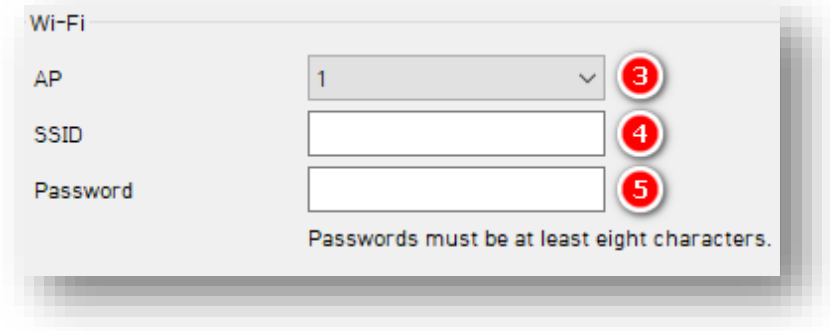
1. To specify mobile and WIFI network settings, check **Enable**.
2. Add **Mobile Network** details to relevant fields.
  - Ensure the **APN**, if you use a Sensata | SmartWitness AT&T SIM, is “smartwitness.com.attz.”



The screenshot shows the Mobile Network configuration panel. At the top, there is a checkbox labeled 'Enable' with a red circle containing the number '1' next to it. Below this is a section titled 'Mobile Network' with a red circle containing the number '2' next to it. Underneath, there are four input fields: 'Dial No.' with the text '+99#' inside, 'APN', 'User ID', and 'Password', each in its own text box.

## Wi-Fi

3. Your CP2 has built-in Wi-Fi. Select your **AP** from the options provided. Your **AP** must be secure, accompanied by WPA/WPA2 encryption.
4. You can set up to 10 Wi-Fi **SSIDs**. The CP2 will scan for as many networks as are added in your settings.
5. Enter a **password**.



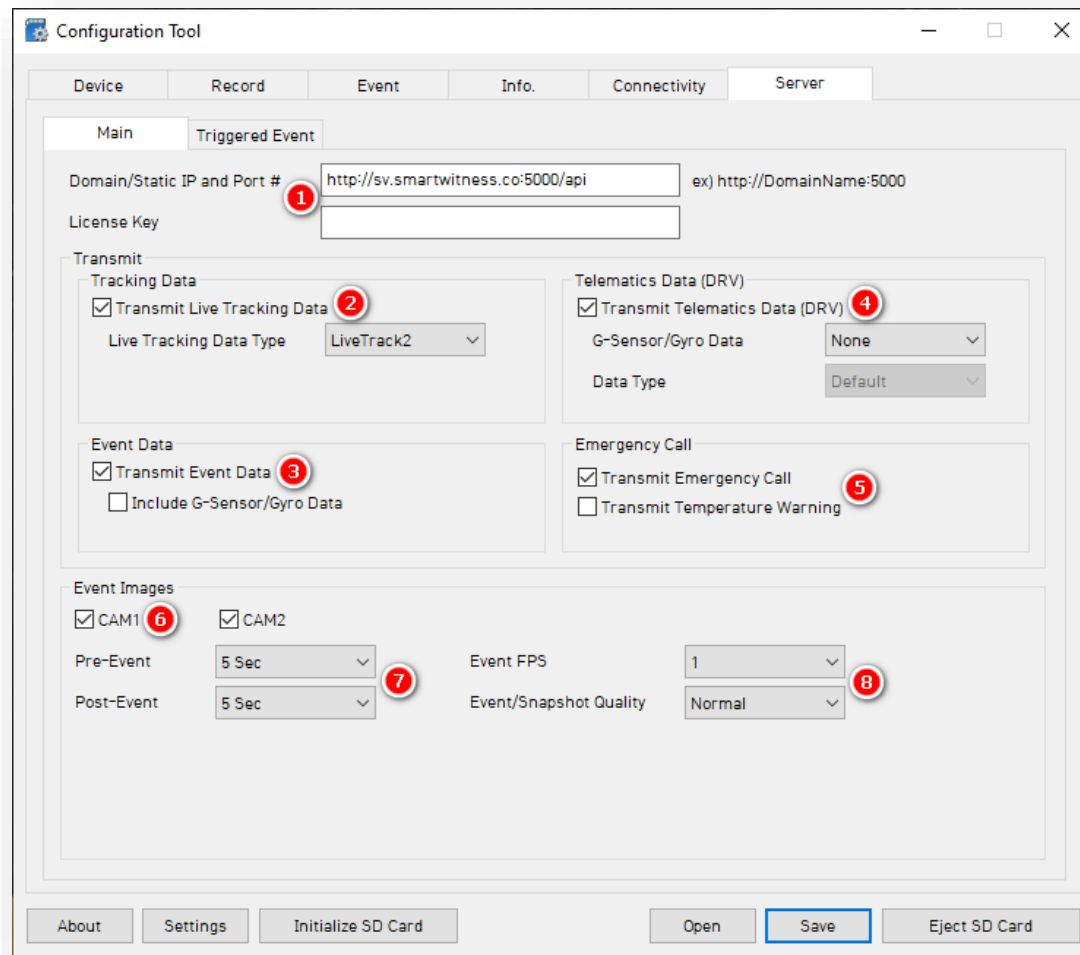
The screenshot shows the Wi-Fi configuration panel. It has a title 'Wi-Fi'. Below it are three fields: 'AP' is a dropdown menu showing '1' with a red circle containing the number '3' next to it; 'SSID' is a text input field with a red circle containing the number '4' next to it; and 'Password' is a text input field with a red circle containing the number '5' next to it. Below the password field, there is a note: 'Passwords must be at least eight characters.'

# Server

## 4.6 How to Configure Server Tab

### 4.6.1 Main Fields

#### Server > Main Tab Layout: At A Glance



## Server > Main

### Server


1. Sensata | SmartWitness, or your service provider, will give you the **Domain/Static IP and Port #** URL and the **License Key** (if necessary) to enter here.



Domain/Static IP and Port #  1  
License Key

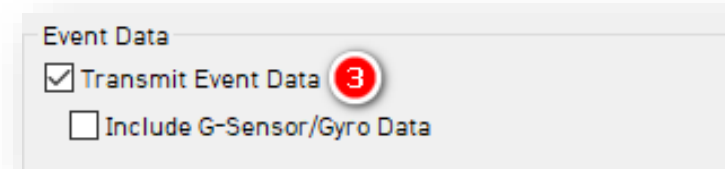
### Transmit

2. Use HTTP posts from your CP2 to the server by checking **Transmit Live Tracking Data**. Livetrack2 contains GPS coordinates. LiveTrack3 does not.



Tracking Data  
 Transmit Live Tracking Data 2  
Live Tracking Data Type

3. To send event notifications and images to the server, check **Transmit Event Data**.



Event Data  
 Transmit Event Data 3  
 Include G-Sensor/Gyro Data

## Server > Main

- To send DRV data to the server, check **Transmit Telematics Data (DRV)**.
- Send emergency notifications like Ecall and over-temperature warnings to the server.

**Note:** The frequency interval of LiveTrack and DRV uploads is server controlled.

The screenshot shows two sections of a settings panel. The top section is titled "Telematics Data (DRV)" and contains a checked checkbox labeled "Transmit Telematics Data (DRV)" with a red circle containing the number 4 next to it. Below this are two dropdown menus: "G-Sensor/Gyro Data" set to "None" and "Data Type" set to "Default". The bottom section is titled "Emergency Call" and contains two checkboxes: "Transmit Emergency Call" which is checked and has a red circle with the number 5 next to it, and "Transmit Temperature Warning" which is unchecked.

## Event Images

- Choose which camera channels send event images to the server by clicking **CAM1** and/or **CAM2**.
- To determine snapshot timing before and after an event, select a **Pre-Event** and **Post-Event** time.

The screenshot shows the "Event Images" settings panel. It features two checked checkboxes, "CAM1" and "CAM2", each with a red circle containing the number 6 next to it. Below these are two dropdown menus for timing: "Pre-Event" set to "5 Sec" and "Post-Event" set to "5 Sec", with a red circle containing the number 7 next to the "Post-Event" dropdown.

- Select image capture settings for **Event FPS** and **Snapshot Quality**.

The screenshot shows the "Event FPS" and "Event/Snapshot Quality" settings. The "Event FPS" dropdown is set to "1" and the "Event/Snapshot Quality" dropdown is set to "Normal". A red circle containing the number 8 is positioned to the right of the "Event/Snapshot Quality" dropdown.

## Server > Triggered Event

### 4.6.2 Triggered Event Fields

#### Event Triggered By

Select the events your device sends to the server. Events transmit instantly, even in “Continuous” record mode.

**Note:** SmartAPI Workstation event admin controls dictate what events and event notifications are sent from SmartAPI to our partner’s servers.

The screenshot shows a configuration window titled "Event Triggered by" with two columns of options. Each option consists of a checkbox and a label. Below each main event label is a sub-option labeled "Transmit Image" with its own checkbox.

Event	Transmit Image
<input checked="" type="checkbox"/> G-Sensor	<input checked="" type="checkbox"/> Transmit Image
<input checked="" type="checkbox"/> Panic Button	<input checked="" type="checkbox"/> Transmit Image
<input checked="" type="checkbox"/> Ignition	<input type="checkbox"/> Transmit Image
<input checked="" type="checkbox"/> Alarm1	<input checked="" type="checkbox"/> Transmit Image
<input type="checkbox"/> Signal1	<input checked="" type="checkbox"/> Transmit Image
<input type="checkbox"/> Signal3	<input checked="" type="checkbox"/> Transmit Image
<input checked="" type="checkbox"/> Emergency Call	<input checked="" type="checkbox"/> Transmit Image
<input type="checkbox"/> Geofence	<input type="checkbox"/> Transmit Image
<input type="checkbox"/> Overspeed	<input type="checkbox"/> Transmit Image
<input checked="" type="checkbox"/> Alarm2	<input checked="" type="checkbox"/> Transmit Image
<input type="checkbox"/> Signal2	<input checked="" type="checkbox"/> Transmit Image
<input type="checkbox"/> Signal4	<input checked="" type="checkbox"/> Transmit Image



## Complete Your Configuration

### 5 Finishing Up/Support

**Goal:** Finalize your configuration and access support

1. Click **Save** to set your finalized settings configuration.
2. Select **FHDRM** SD drive when prompted. Your configuration saves to your card.
3. Wait for confirmation that the software applied your settings configuration.
4. Click **Eject SD Card**, insert it into your CP2, and power on the device.
5. You have completed your configuration.

**Note:** Apply device configurations over the air from the SmartAPI Workstation. See the instructions [here](#).

#### 5.1 Support Information

If you need additional support or an expert to walk you through this process, please [register](#) and submit a ticket, or email us at [support@smartwitness.com](mailto:support@smartwitness.com). If you are enrolled in SWAT, reach out to the integration team via Teams with any device configuration questions.

Feel free to call our support team:

**North America, South America, APAC**

- +1 (312) 981 8774

**EMEA**

- +44 (0) 1483 397005