CP4/CP4S CONFIGURATION TOOL GUIDE v3.6.1

A jumpstart to video telematics configuration

Table of Contents

1.0 Welcome to your CP4/CP4S Configuration Guide

This guide aims to inform users of the appropriate processes involved in setting up your SmartWitness CP4/CP4s device.

This step-by-step walkthrough will act as your teacher as you learn our product's layout, functionality, and configuration settings.

You can find an overview of the configuration tool's layout in **section 3.0**.

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

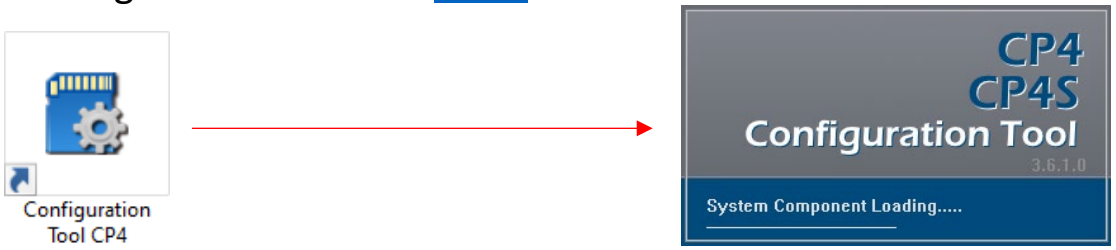
We hope that this training document will remove common end-user pain points involved with the setup process. If you experience any issues with this guide, please lend us your feedback and/or contact our **support** teams.

2.0 CP4/CP4S 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**.



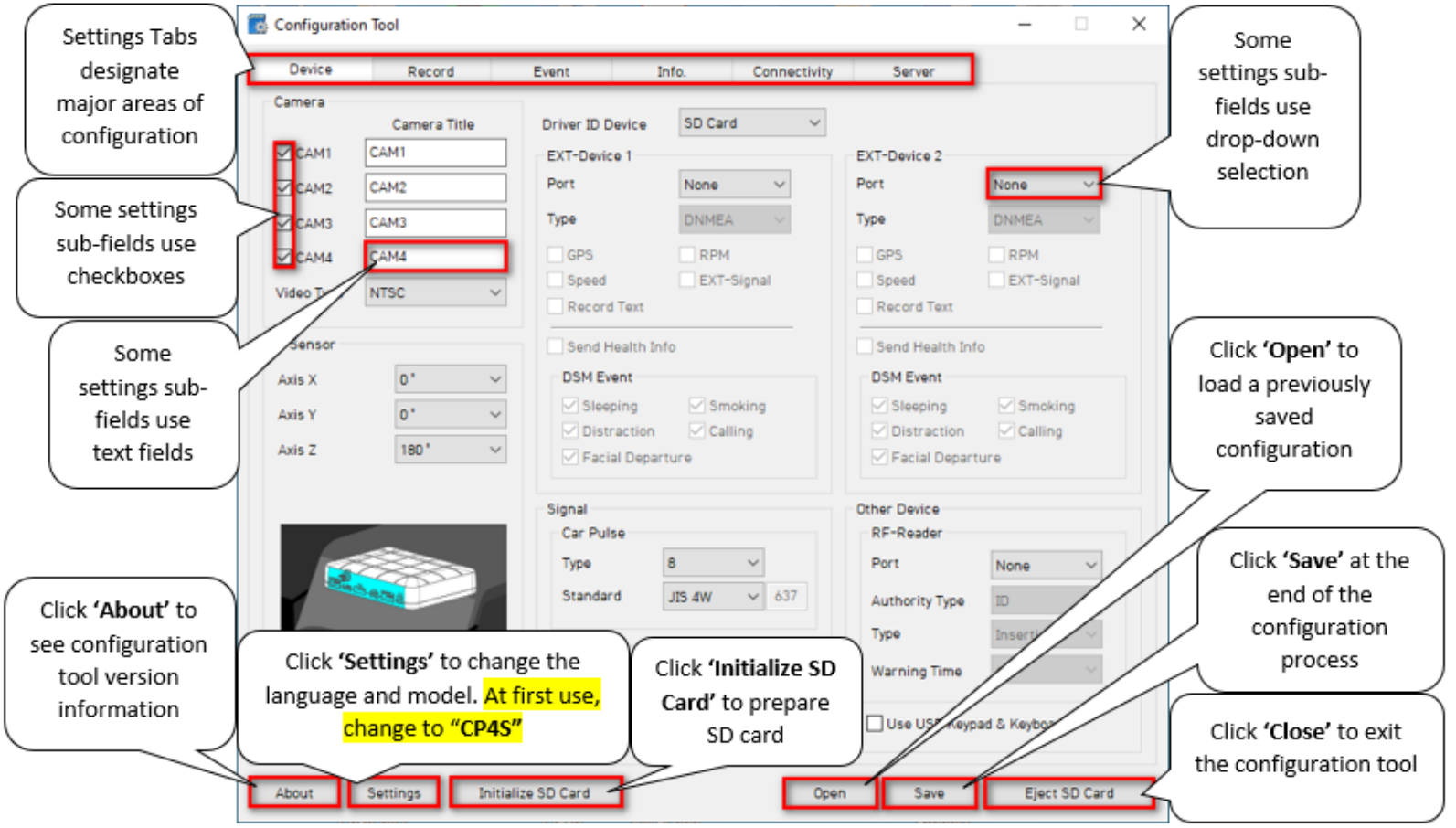
1. After download, proceed to installation.
2. Open configuration tool, insert your SD Card*.
3. Click **Initialize SD Card**.
4. Select **SD Card** from preferred internet browser.
5. Click **Start** to initialize.

Note: SD cards from SmartWitness (i.e., the SD card included with your CP4S) are already initialized.

*The maximum size supported for your SD card is 256 GB.

3.0 Configuration Tool Layout & Settings

Goal: Understand your tool's main features

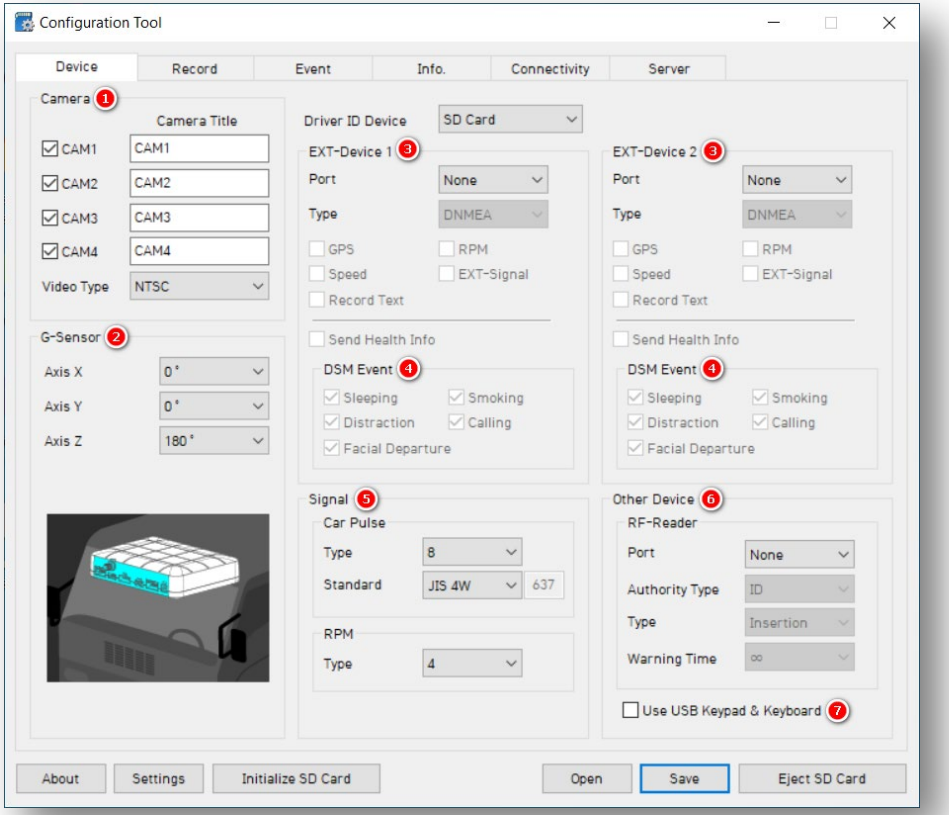


4.0 Configuring Your Device

Goal: Personalize and optimize your device's settings

4.1 How to Configure Device Tab

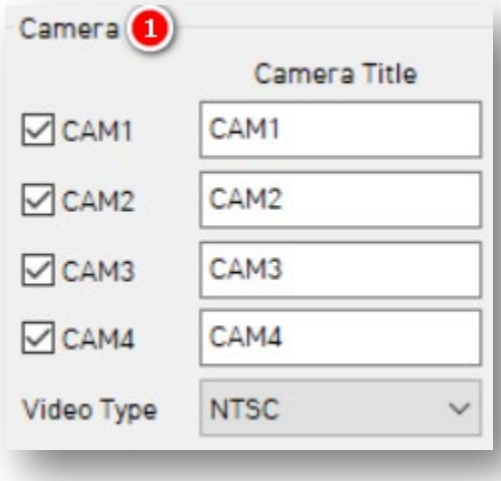
Device Tab Layout: At a Glance



Device

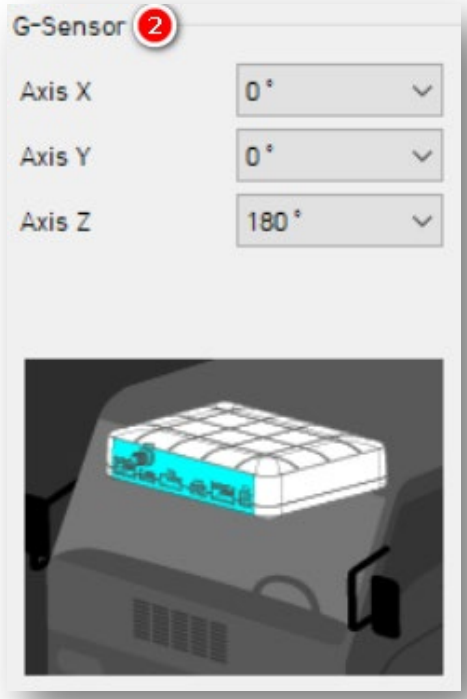
Camera

1. Activate your desired cameras, label them and select your preferred video standard via **Video Type.**
   - Ensure **Video Type** matches the video standard of your accessory cameras.
   - Typically, North America is **NTSC** and EMEA is **PAL.**



G-Sensor

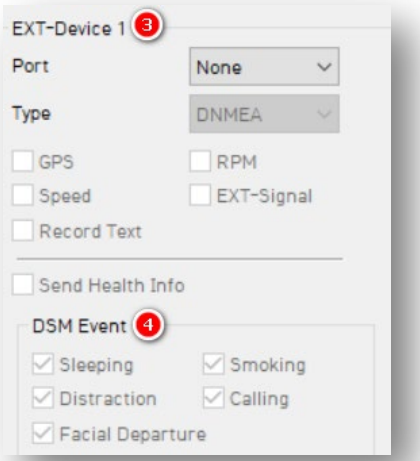
2. To designate the device's install position, select from each option. This allows for G-Sensor calibration and accurate drive data reporting. See all orientations and corresponding axis values **here**.



Device

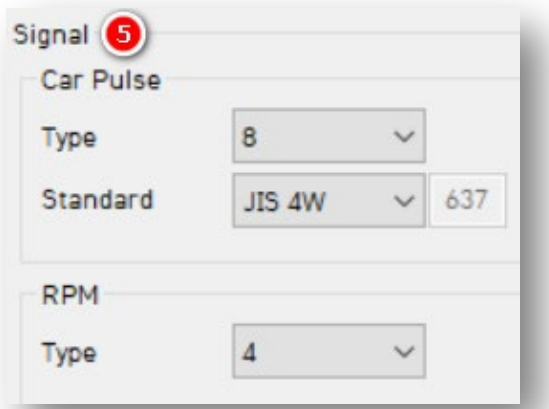
EXT – Device 1 & 2

3. Allow exterior devices to work with your CP4/CP4S by selecting from **EXT – Device's** list of accessory devices or checkbox items.
   - Add-ons connect to the device's serial CP4/CP4S input once the '**S3**' port is activated.
4. **DSM Event** access requires you to use specific "Driver State Monitoring" AI camera models.



Signal

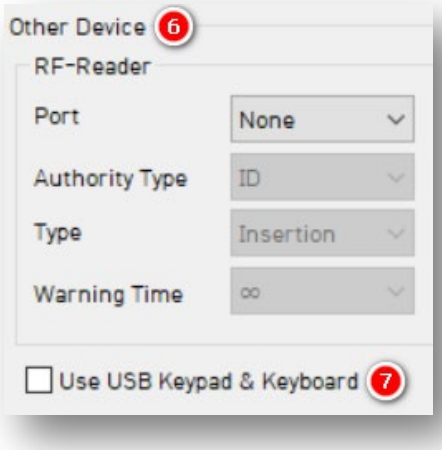
5. **(Optional)** Select from **Car Pulse Type, Standard,** and **RPM Type** options. Configure the input wires attached to the CP4/CP4S I/O harness. Connect to the tachometer to receive vehicle RPM and/or speed.
   - **Pulse Signal:** pull up, pull down.
   - **Type:** 1 – 25.
   - **Standard:** JIS 4W/JIS 2W, 3W/SA E/DIN/BNA/MANUAL.
   - **RPM Type:** 1 – 10.



Device

Other Device

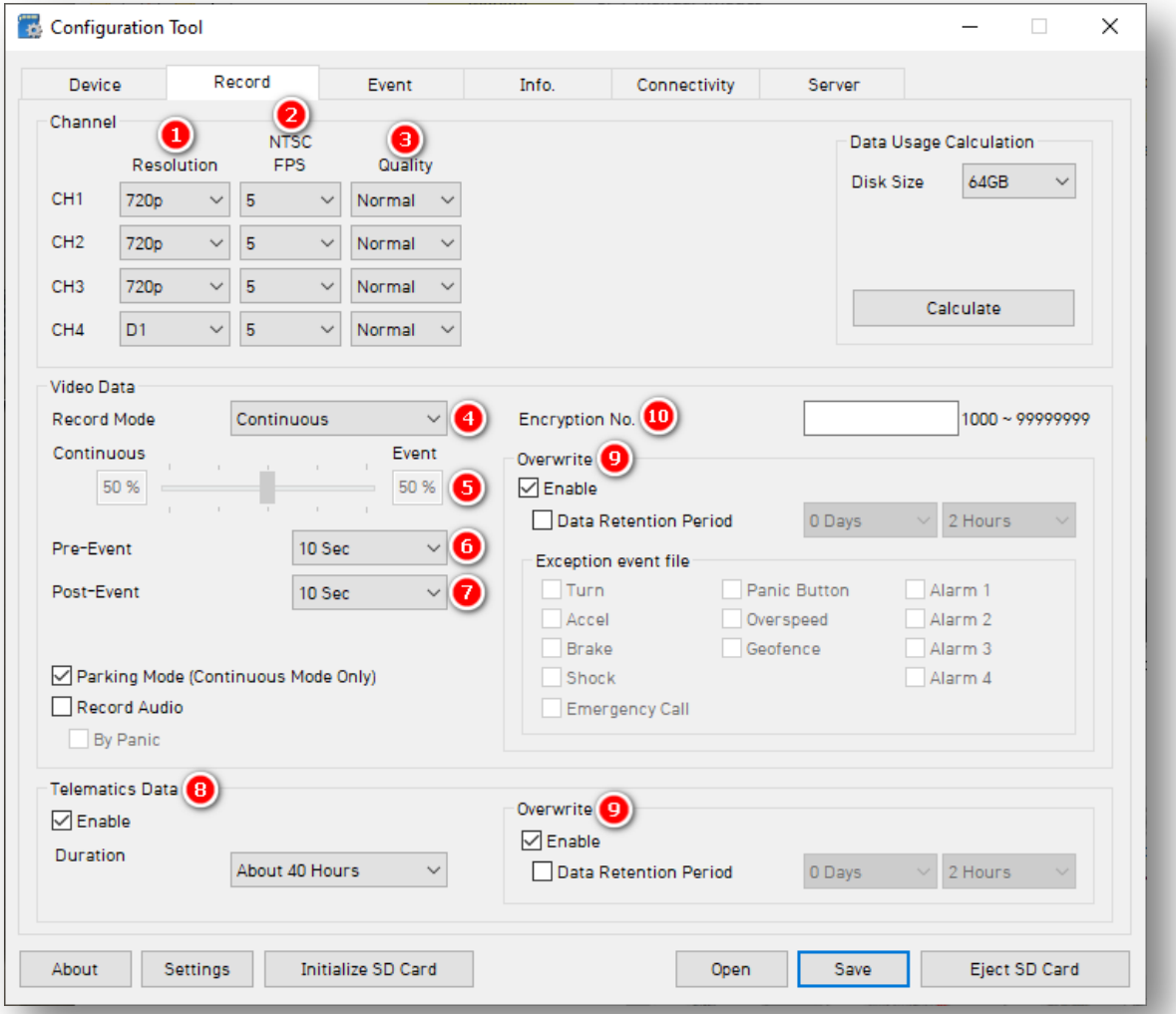
6. **(Optional)** Set up an accessory device (RF-Reader or Radio Frequency Reader) that connects to the serial input. Designate the reader **Type** and **Warning Time**.
7. Allow a connection for these devices by clicking **Use USB Keypad & Keyboard.**



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

4.2 How to Configure Record Tab

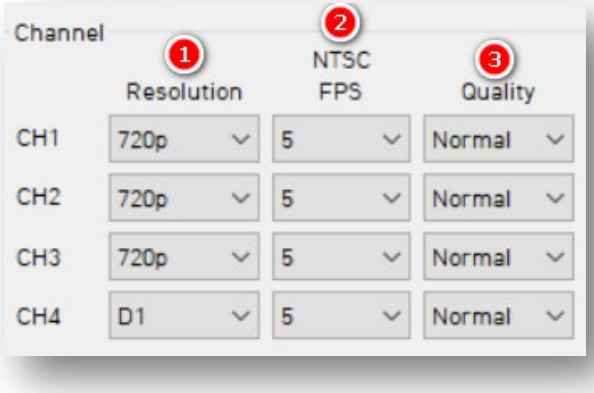
Record Tab Layout: At a Glance



Record

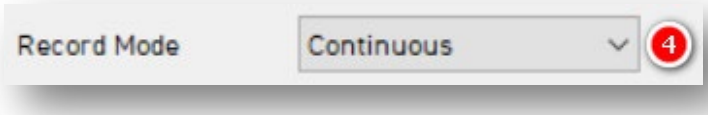
Channel

1. Select your **Resolution** for CH1:
   - **D1** (720 x 480)**, 720p** (HD)**, 1080p** (FHD).
2. Select a **Frame Rate**:
   - **30fps, 15fps, 10fps, 5fps, 4fps, 3fps, 2fps, 1fps.**
3. Choose your default video **Quality:**
   - **Normal** (Most Compressed), **High**, or **Super** (Lossless) Bitrate).



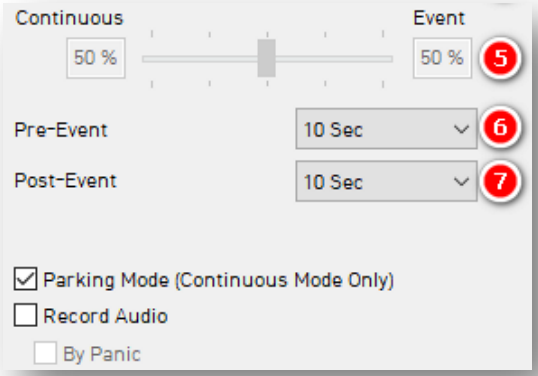
Video Data

4. Select your preferred **Record Mode**:
   - **Event:** Only records events. Settings determined by the pre & post-event setting.
   - **Continuous** (Default)**:** Video continuously records, with no events documented on SD Card (Events are sent to Smart API if configured in the **Server** tab).
   - **Continuous+Event:** Video continuously records at 1 FPS. Events record at your specified FPS.



Record

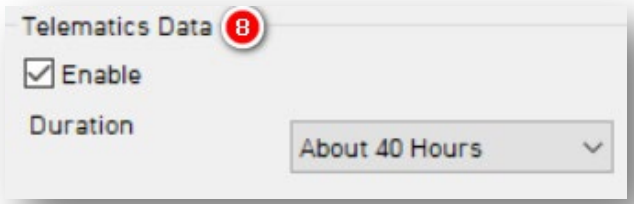
5. If you chose **Continuous+Event** mode, specify the SD card's ratio of video data recording.
6. To set the amount of time video records before an event triggers, select your **Pre-Event Setting.**
7. To set the amount of time video records after an event triggers, select your **Post-Event Setting.**



Note: The pre/post-time settings are not applicable to "Continuous" record mode. **Parking Mode** reduces FPS to 1 when the vehicle idles for 5 min.

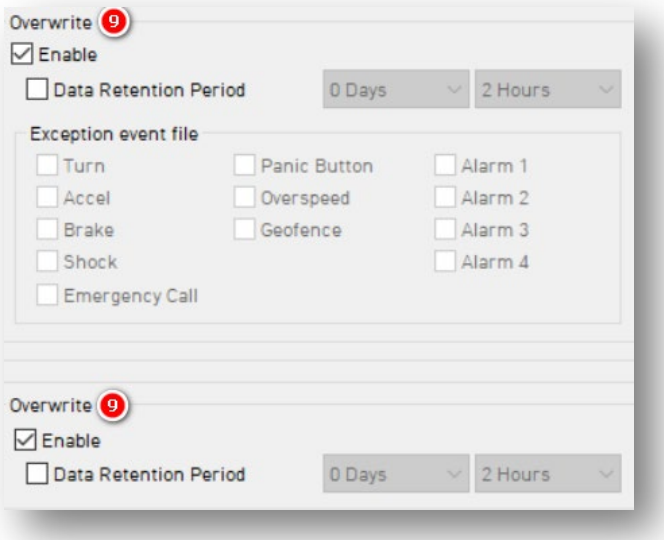
Telematics Data

8. To log telematics data, check **Enable.** This sets the duration of your DRV Storage on the SD card. DRV files will record and store separate from video/event logs.



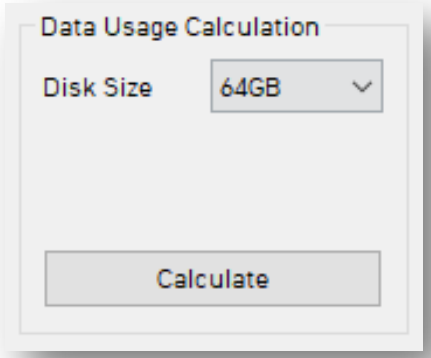
Record

9. To turn on your device's overwrite feature, click **Enable.** This automatically rewrites SD card video footage and telematics data.
   - **Data Retention Period** determines how long data remains on the SD card. If activated, the data deletes once the set time expires.
   - Select a list of **Exception event files** to remain on your SD card for longer periods of time.



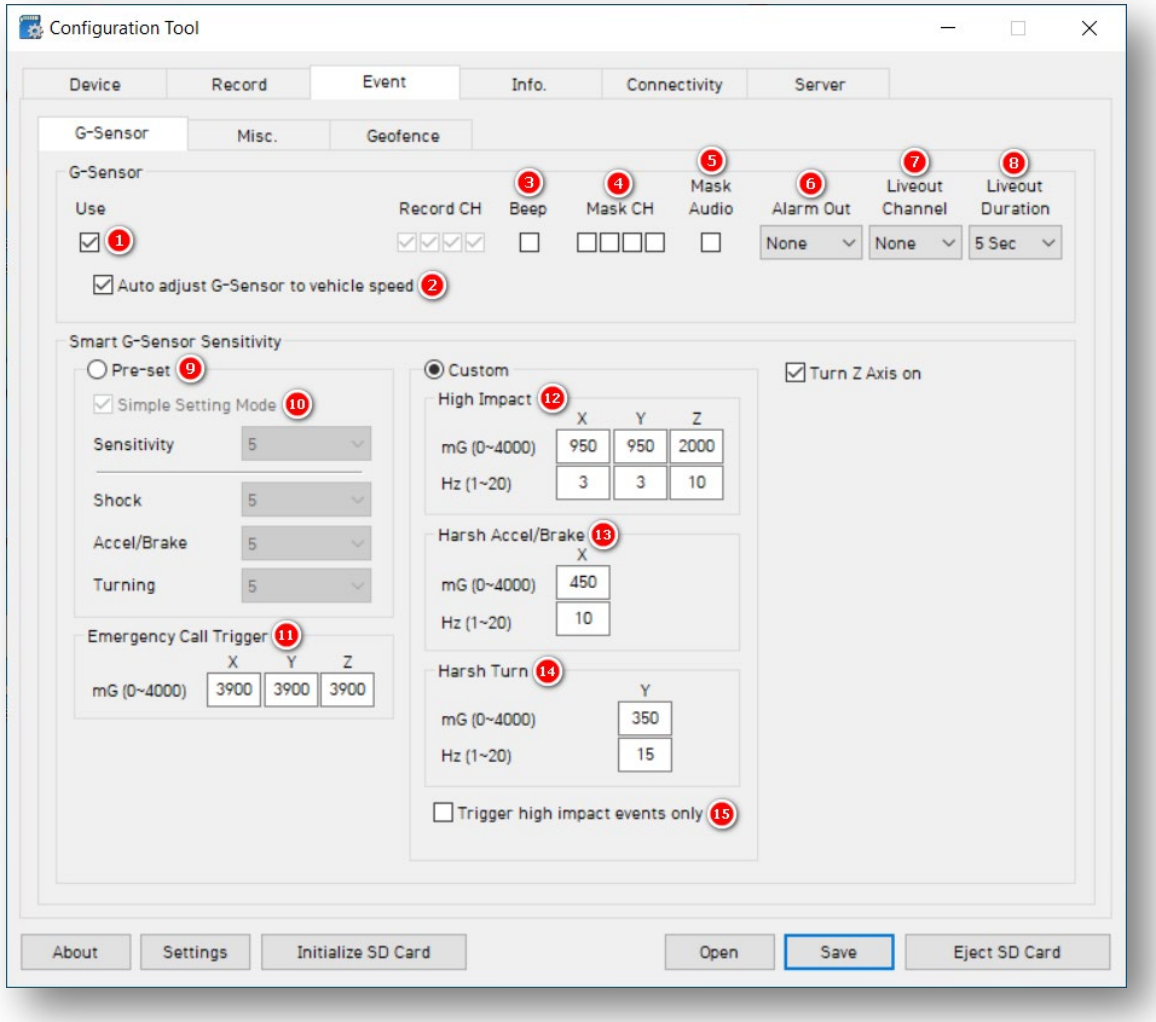
10. To protect SD card data from being easily accessible, enter an 8-digit **Encryption No**.

Note: Using your current configuration, apply different **Disk Sizes** in **Data Usage Calculation** to estimate storage capacity.



4.3 How to Configure Event Tab

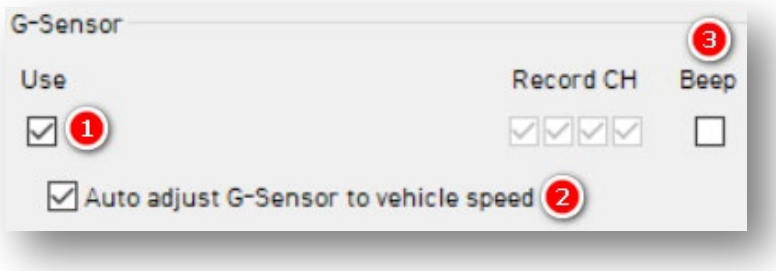
Event Tab Layout: At a Glance



Event > G-Sensor

4.3.1 G-Sensor Fields

1. To turn on the G-Sensor and configure its settings, check **Use.**
2. To increase the G-Sensor speed threshold for high vehicle speeds, check **Auto Adjust G-Sensor to vehicle speed.**
3. To turn on in-vehicle noise notifications, check **Beep.**



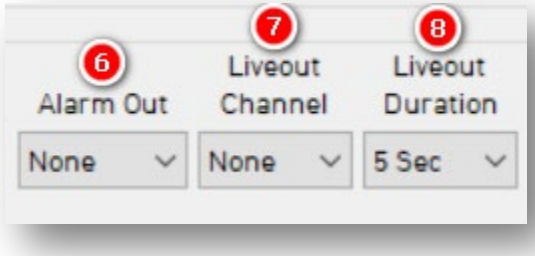
Note: Individual selection of camera channels disables when your device is in "Continuous" mode.

4. To prevent camera channel video recording, check **Mask CH.** Each checkbox corresponds to a channel (1-4, left to right).
5. Prevent device audio recordings by clicking **Mask Audio.**

Note: The masking of Video/Audio applies only during the event time.

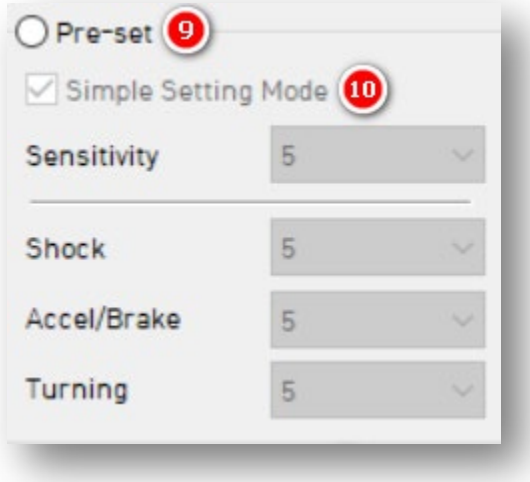
Event > G-Sensor

6. To set the alarm's notification duration, select from **Alarm Out** options.
   - This sends a 5V output through **Alarm Out** (Brown Wire).
7. Decide which camera displays when your device's G-Sensor triggers by choosing from **Liveout Channel** options.
8. Determine how long the selected camera channel stays on after a completed event by selecting a **Liveout Duration.**



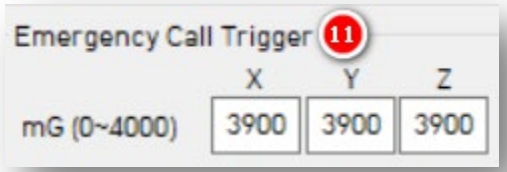
Smart G-Sensor Sensitivity

9. Change your vehicle's responsiveness to different events by clicking **Pre-set** and choosing a sensitivity level (1-10).
10. To use the default G-Sensor sensitivity options, click **Simple Setting Mode.**



Event > G-Sensor

11. Set a threshold for **Emergency Call Trigger's** (“Ecall” or “SevereShock”) X and Y axis event shock values.

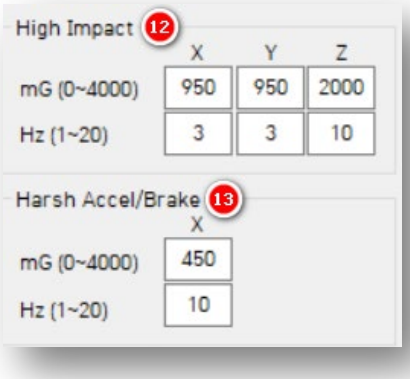


Event > G-Sensor

Custom

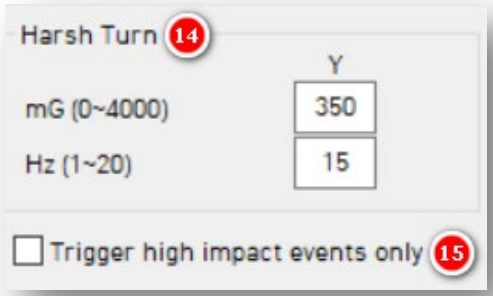
To set customized G-Sensor sensitivity settings, click **Custom.**

12. Set a **High Impact** event shock range for the X and Y axis.
13. Set a **Harsh Accel/Brake** shock range.



Note: Hz = Consecutive milliseconds that the G-Sensor is above the set value. Use a lower Hz for High Impact settings. Use a higher Hz for Harsh Accel, Brake and Turn settings. “Simple Setting Mode” is fixed to 1Hz. “Custom” is adjustable.

14. Determine a **Harsh Turn** event shock range for the Y axis.
15. To limit alerts to high-impact events, check **High Impact Trigger.**
    - If activated, your device will not send Accel/Brake/Turn events.

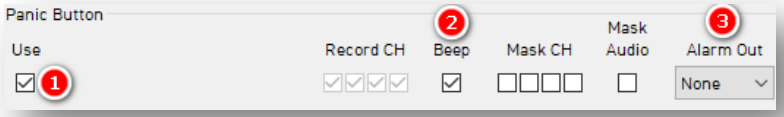


Event > Misc.

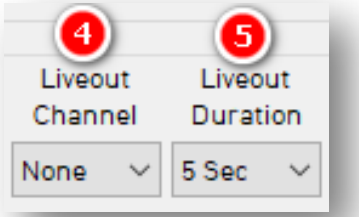
4.3.2 Misc Fields

Panic Button

1. To activate the Panic Button, check **Use**.
2. Turn on audible notifications when a driver presses the Panic Button by clicking **Beep.**
3. Set the duration of the alarm via **Alarm Out** options.
   - This sends a 5V output through Alarm Out (Brown Wire).



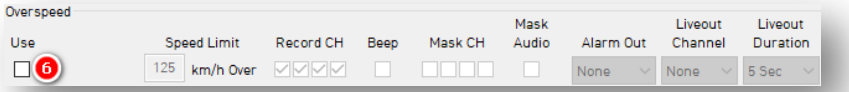
4. Decide which camera displays when your device's Panic Button triggers via **Liveout Channel** options.
5. Determine how long your selected camera channel stays on after a completed event by selecting a **Liveout Duration.**



Event > Misc.

Overspeed

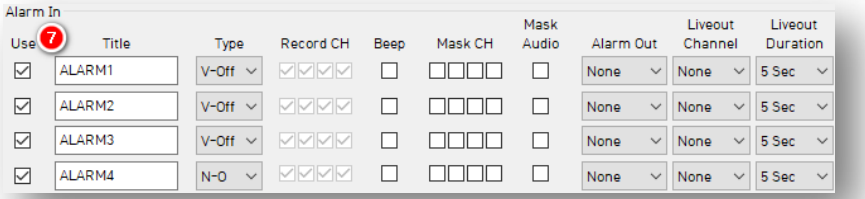
6. To configure Overspeed settings, click **Use.**
   - Enter your **Speed Limit** threshold for recording overspeed events (Gauges vehicle speed, not regional speed limits).
   - You should be familiar with the other settings featured in this image. Click **here** for a reference of each field's function. Apply the same logic to Overspeed settings.



Alarm-In

7. To set your optional alarm input triggers, check **Use**. Under **Title**, label them according to input type (e.g., doors).
   - **Alarm 1** = White Wire
   - **Alarm 2** = Purple Wire
   - **Alarm 3** = Green Wire
   - **Alarm 4** = Orange Wire
   - **Input Types:**
     - **V-On/Off** (12V)
     - **N-C** (Normally Closed Circuit)
     - **N-O** (Normally Open Circuit)

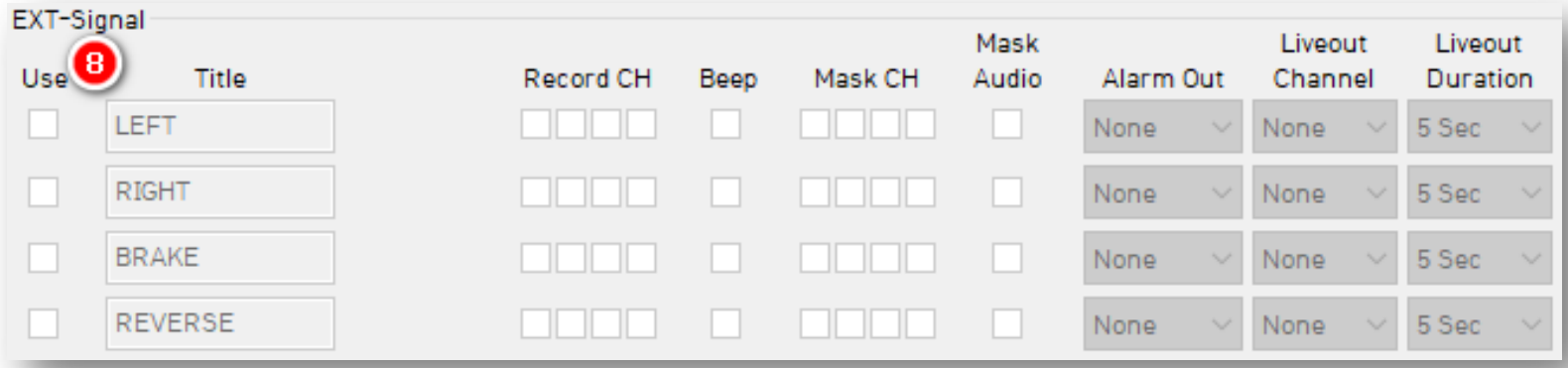
Note: Older CP4 hardware doesn't support Alarm 4. CP4/CP4S devices post-August 2018 support a 4th alarm input.



Event > Misc.

EXT-Signal

8. Signal events are reserved for RS232 accessory devices with their own event triggers (like an ADAS or DMS camera). This allows CP4S to configure recording, masking and display rules for accessory devices. EXT-Signal serves no purpose beyond RS232 accessory devices.

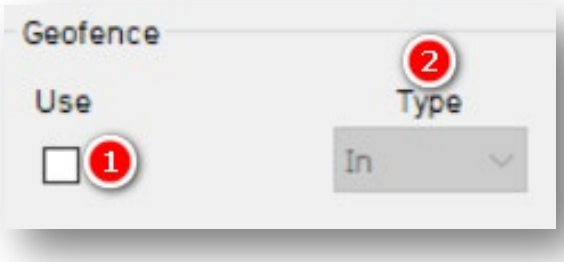


Event > Geofence

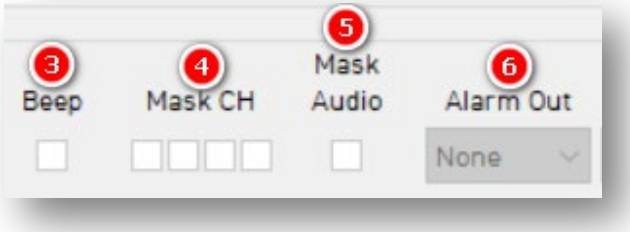
4.3.3 Geofence Fields

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

1. To activate the Geofence, click **Use.**
2. Select the **Type** of Geofence.
   - **In** - Geofence triggers when the vehicle enters the geographic boundary.
   - **Out** - Geofence triggers when the vehicle exits the geographic boundary.

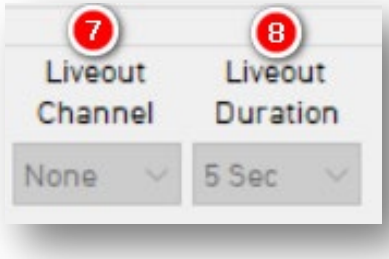


3. Audibly notify the driver when they have crossed the Geofence's boundary via **Beep.**
4. To obscure camera channels, check the relavant **Mask CH.**
5. Prevent device audio recording by clicking **Mask Audio.**
6. Set the duration of the alarm via **Alarm Out** (Brown Wire) dropdown.



Event > Geofence

7. Choose which camera displays on the LCD when your device's Geofence triggers via **Liveout Channels** (if using LCD).
8. Determine how long your selected camera channel stays on after a completed event by selecting a **Liveout Duration.**

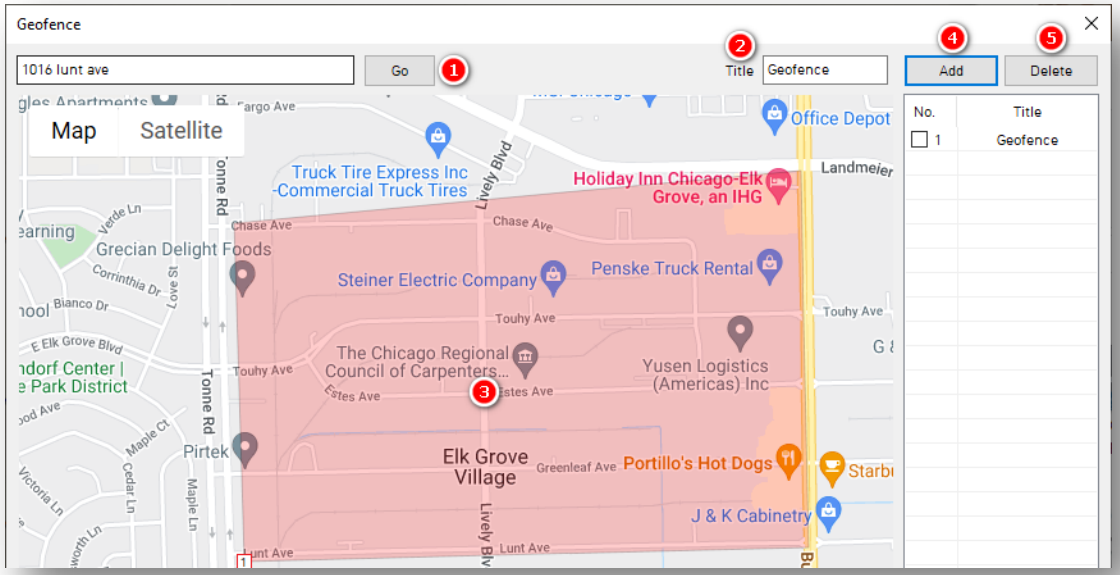


Event > Geofence

Zone Selection

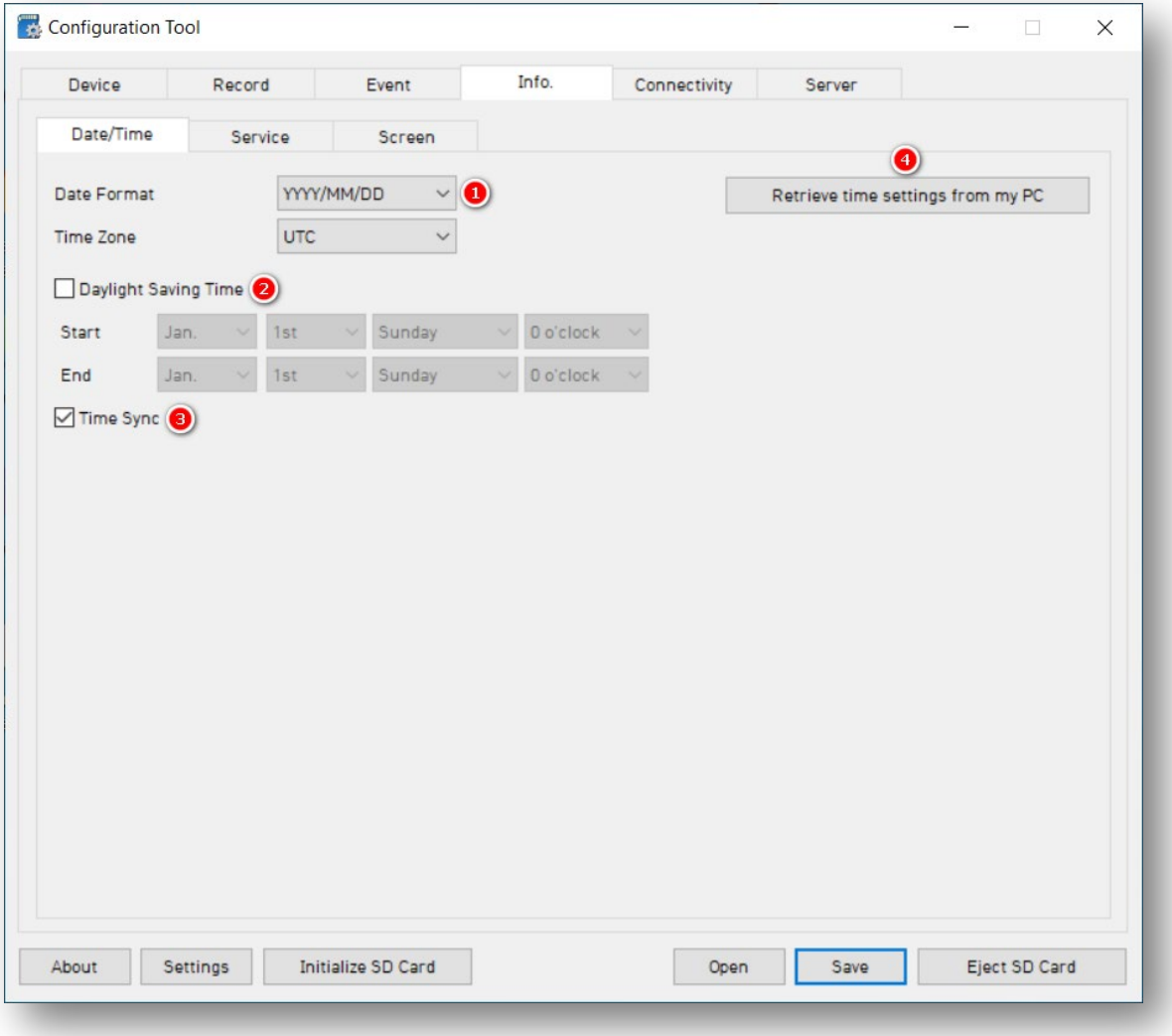
To set Geofence boundaries on Google Maps, click **Zone Selection**. Create up to 20 geofence zones.

1. To search for a location, enter an address into the text field and click **Go.**
2. Change the **Title** of your Geofence**.**
3. To set a perimeter, click on the map. The area in **Red** is your Geofence.
4. Activate your outlined Geofence by clicking **Add.**
5. To remove a Geofence, check the Geofence **No.** and click **Delete.**



4.4 How to Configure Info Tab

Info Tab Layout: At a Glance

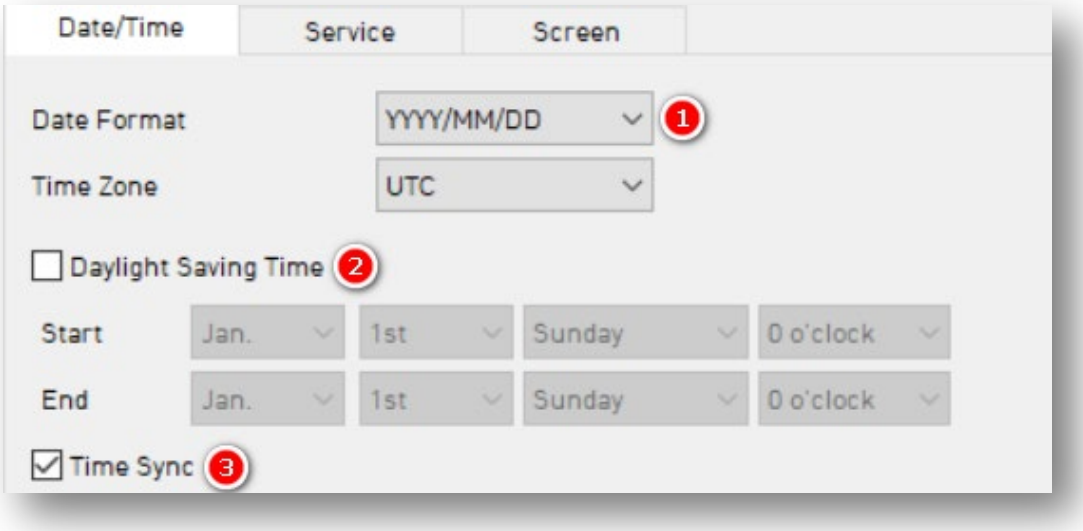


Info > Date/Time

4.4.1 Date/Time Fields

Setting time preferences on your CP4/CP4S is **not recommended**. PC Viewer software and Smart API automatically adjust UTC to your local time zone. **If you've connected your CP4/CP4S to Smart API, do not set time preferences.**

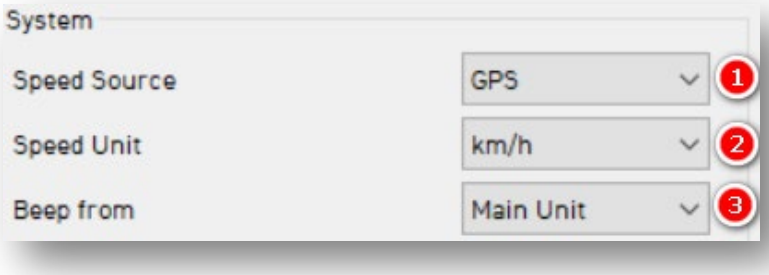
1. Set your preferred **Date Format.**
2. Set a customized date and time range for **Daylight Savings Time.**
3. Ensure GPS time syncs with device OS time by clicking **Time Sync.**



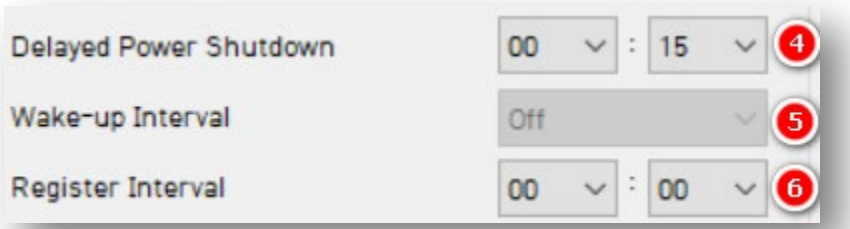
4.4.2 Service Fields

System

1. Determine how your device gauges vehicle speed by choosing a **Speed Source.**
2. Set your preferred **Speed Unit**.
3. Choose the source of your device's audible notifications with **Beep.**



4. Decide on the amount of time your CP4/CP4S stays on after ignition off from **Delayed Power Shutdown** options.
5. Select the time, or **Wake-up Interval,** in which your device powers on after shutdown.
6. Select amount of the time, or **Register Interval,** your device stays on during its Wake-up.



7. Check **Auto Format Feature** to automate SD card maintenance when necessary.
   - This feature formats blank SD cards automatically. It does not apply to corrupted SDs. A “Media Error” event goes to the server. The red LED and an (optional) audible alarm turns on.
   - See “System Warning” on the next page.
8. Allow audio responses from your device’s button by clicking **Button Beep.**
9. Remove the user-facing menu from your LCD with **Disable Menu.**

Ignition Off Filter

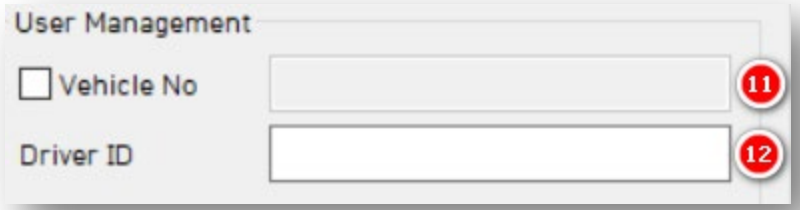
10. Check **Use** to turn on Ignition Off Filter.
    - Set the time your device maintains ignition on operation with **Filter Duration.**
    - Set a value the **G-Sensor Threshold** must exceed to retain ignition on functions.
    - To prevent faulty ignition off events, set a **Threshold** value.

Info > Service

User Management

11. Check **Vehicle No** and assign a number to your vehicle.
12. Enter a unique **Driver ID** for different vehicles.

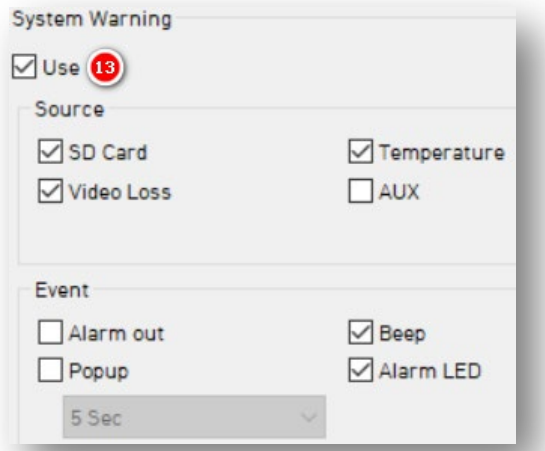
    *You can watermark **Vehicle No** & **Driver ID** on your MP4 converted video feed with desktop analysis software.



System Warning

13. To provide notifications for system component corruption and/or failure, check **Use.**
    - Check any/all boxes to allow notifications.
    - Set your **Event** notification settings for system warnings.

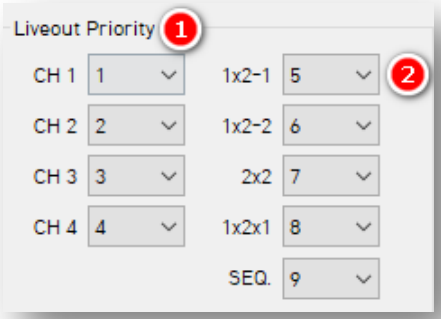
Note: If you have activated system warning in **Source**, your device sends corresponding notifications to SmartAPI.



4.4.3 Screen Fields

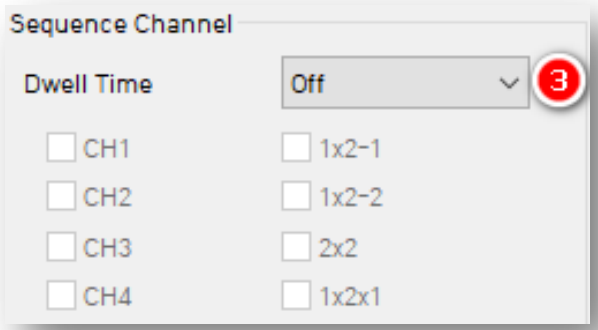
Liveout Priority

1. Select display preferences when your device's trigger activates from **Liveout Priority** options.
   - Camera prioritization ranges from 1 (highest priority), to 9 (lowest priority).
   - If **CH1** and **CH2** trigger at the simultaneously, the camera with higher priority is displayed.
2. Select individual camera channel aspect ratios.



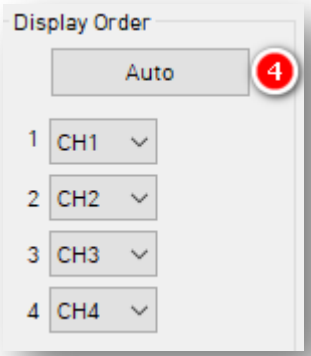
Sequence Channel

3. Select the display time per selected camera channels (Off – 5 sec), from **Dwell Time** options.



Display Order

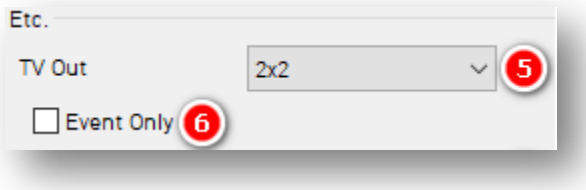
4. Automate the organization of your camera channel display by clicking **Auto.** If you prefer manual camera channel organization, select a display order.



Etc.

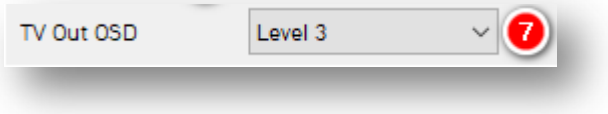
5. Choose a signal to provide to your monitor from **TV Out** options.
   - **2x2**, or "quad view," is the default display view.

6. Click **Event Only** to turn off the V/O (video output) signal unless there is an event and "Event Only" is configured in the [Event] tab.



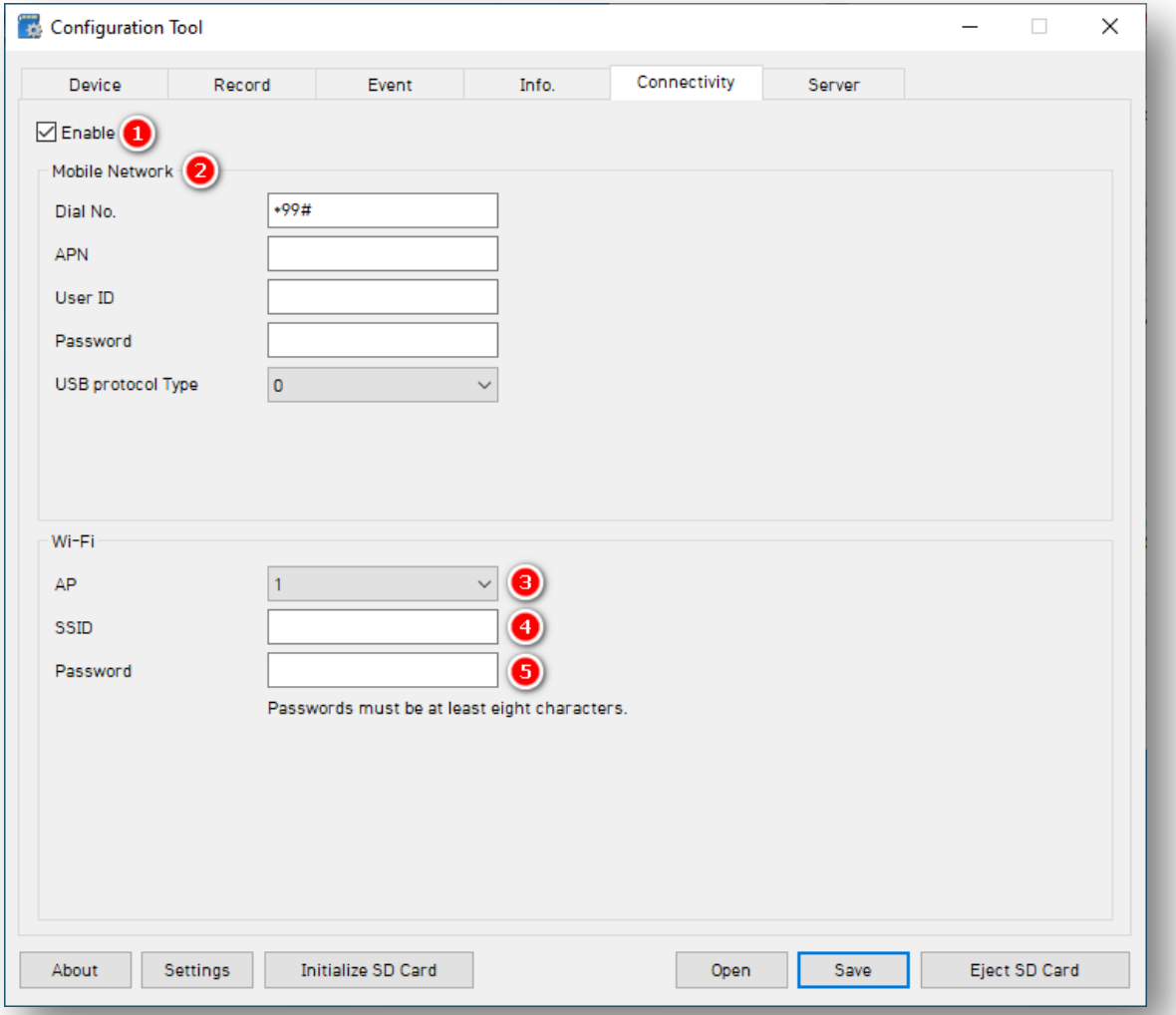
Info > Screen

7. Select which information appears on your LCD.
   - **Level 1** (Full): Time, Disk Space, Camera Title, Camera/Event Status.
   - **Level 2**: Time, Disk Space, Camera Title.
   - **Level 3**: Time, Disk Space.
   - **Level 4** (Off): No data overlay.



4.5 How to Configure Connectivity Tab

Connectivity Tab Layout: At a Glance

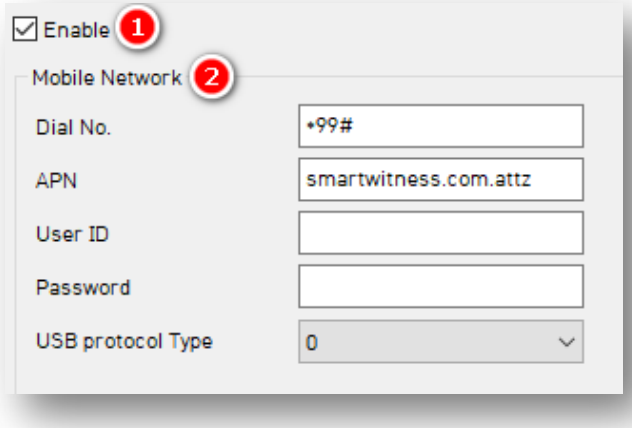


Connectivity

Mobile Network

1. To specify mobile and WIFI network settings, check **Enable.**
2. Add **Mobile Network** details to relevant fields. If using SmartWitness (AT&T) SIM card, ensure the APN matches the image shown.

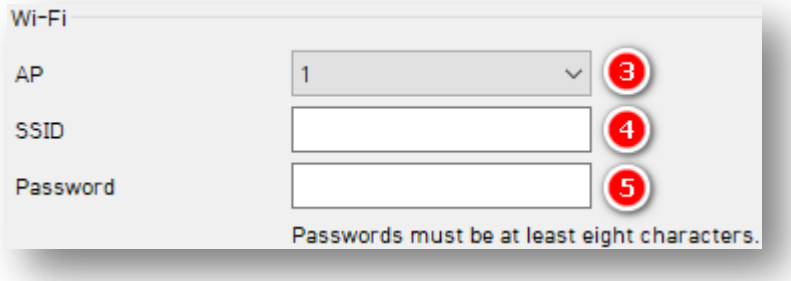
   Important: CP4 and CP4S do not have Wi-Fi built-in as standard. Only the "CP4S-W" model supports Wi-Fi.



WiFi

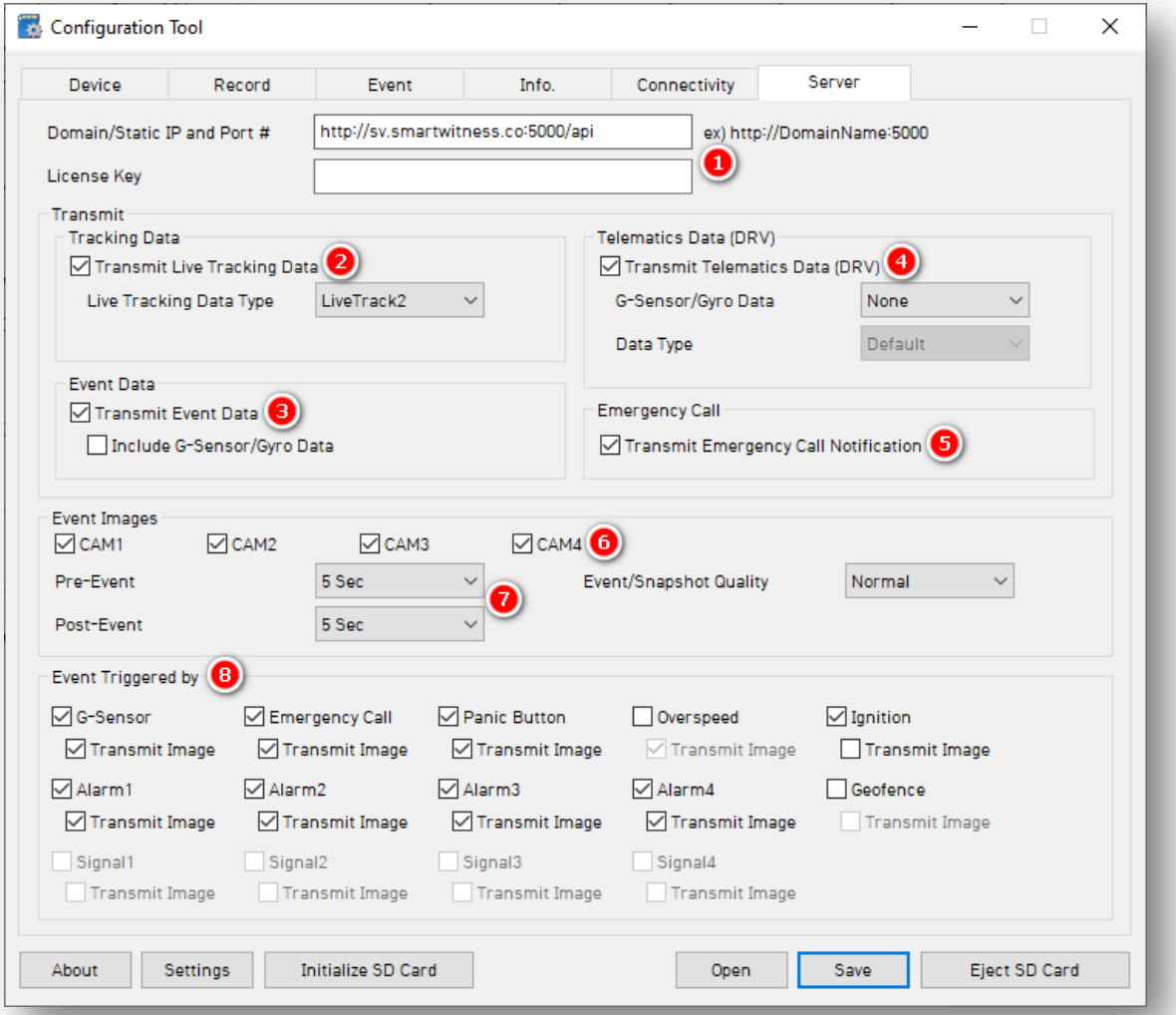
Use WiFi connection instead of cellular, with an approved WiFi USB dongle.

3. Your CP4/CP4S has built-in WiFi. Select your **AP**. Your **AP** must be secure and use WPA/WPA2 encryption.
4. Set up to 10 Wi-Fi **SSIDs**. Your CP4/CP4S will scan for as many networks as added to your settings.
5. Enter a **password**.



4.6 How to Configure Server Tab

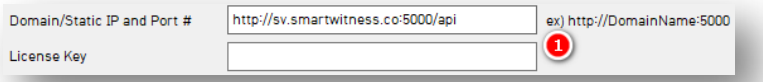
Server Tab Layout: At a Glance



Server

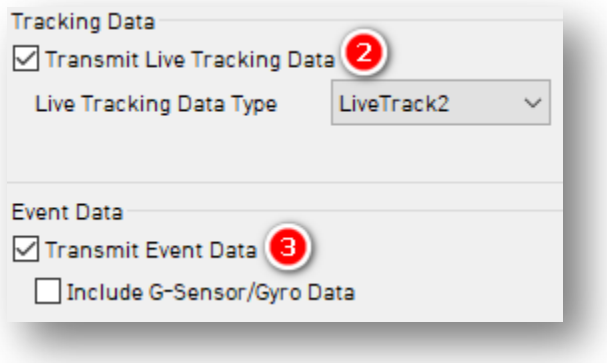
Server

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



Transmit

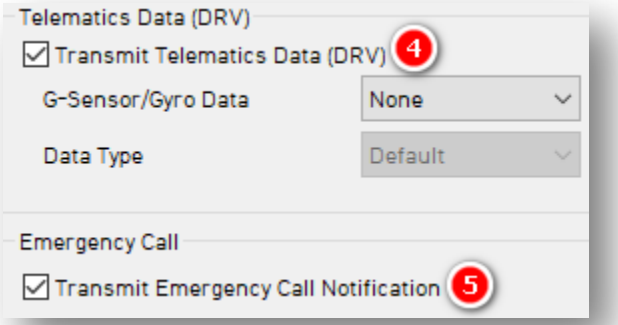
2. Use HTTP posts from your CP4/CP4S to the server by checking **Transmit Live Tracking Data**. Livetrack2 contains GPS coordinates. LiveTrack3 does not.
3. To send event notifications and images to the server, check **Transmit Event Data.**



Server

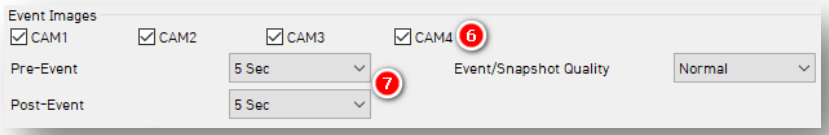
4. Send DRV data to the server by clicking **Transmit Telematics Data (DRV).**
5. To send Ecalls to the server, check **Transmit Emergency Call Notification.**

   Note: The frequency interval of LiveTrack and DRV uploads are server-controlled.



Event Images

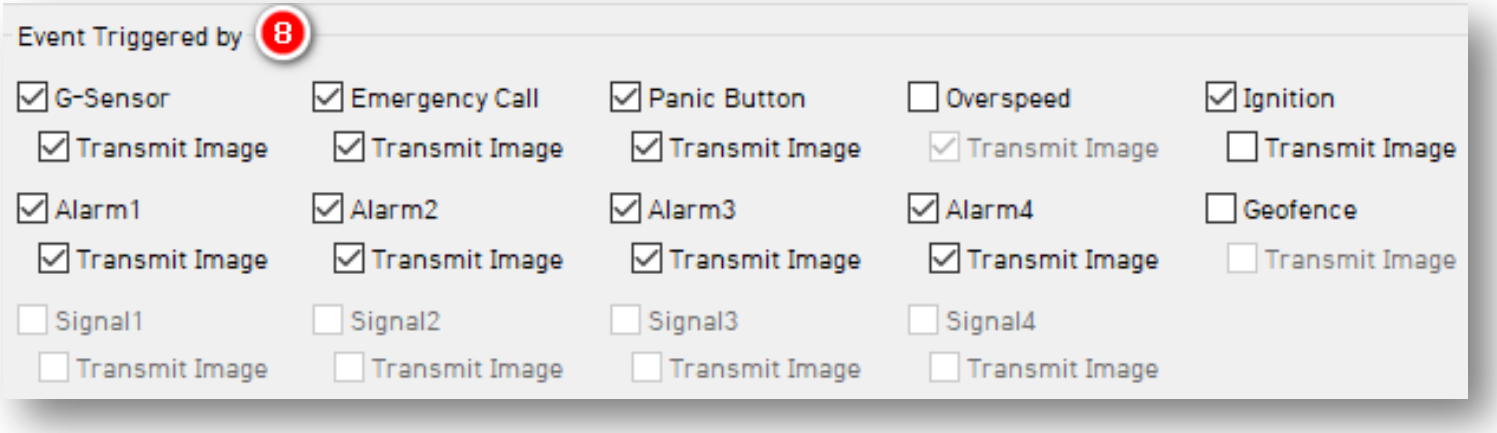
6. Choose which camera channels will send event images to the server.
   - **CAM1, CAM2, CAM3,** and **CAM4**
7. Select from **Pre-Event** and **Post-Event** options to determine snapshot timing before and after an event.



Server

Event Triggered By

8. To determine what events your device sends to the server, select from options like **G-Sensor** and **Emergency Call** (“SevereShock”)**.** Events transmit instantly, even if your device is in “Continuous” record mode.



5.0 Finishing Up/Support

Goal: Finalize your Configuration and access support

1. Click **Save** to establish your finalized settings configuration.
2. Select **FHDRM** SD drive when prompted. Your configuration saves to your card.
3. Wait until the software confirms the application of your settings configuration.
4. Click **Eject SD Card**, insert into your CP4/CP4S and power on the device.
5. You've completed your configuration.

Note: You can apply device configurations can over-the-air from the Smart API Workstation. Read instructions **here**.

5.1 Support Information

If you need additional support or want an expert to walk you through this process, please **register** and submit a ticket, or email us at support@smartwitness.com.

Feel free to call our support team:

North America, South America, APAC

- +1 (312) 981 8774

EMEA

- +44 (0) 1483 397005