

KP2 CONFIGURATION TOOL GUIDE v6.3

*A jumpstart to video
telematics
configuration*



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Introduction

1 Welcome to Your KP2 Configuration Guide

This guide aims to inform users of the proper processes involved in setting up your Sensata INSIGHTS KP2 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 KP2'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 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 contact our [support](#) teams.

Note: Use this configuration guide with at least version 1.2.2.0 of the KP2 Configuration Tool. Content in this guide was released in coordination with KP2 firmware version 1.2.2.



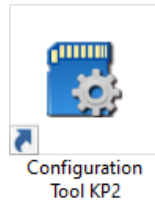
KP2 Configuration Download & Installation

2 KP2 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 the configuration tool and insert your MicroSD card*.
3. Click **Initialize SD Card**.
4. Select **SD Card** from your preferred internet browser.
5. Click **Start** to initialize.

Note: MicroSD cards from Sensata INSIGHTS come pre-installed and initialized.

*The maximum supported onboard storage is 256 GB.



KP2 Configuration Tool Layout

3 Configuration Tool Layout & Settings

Goal: Understand your tool's main features

The screenshot shows the KP2 Config Tool interface with the following components and callouts:

- Settings tabs:** Device, Record, Event, Info, Connectivity, Server. A callout states: "Settings tabs designate major areas of configuration".
- Camera Section:**
 - Camera Title:** Text fields for CAM1 and CAM2. A callout states: "Some settings sub-fields use text fields".
 - Checkboxes:** Checkboxes for CAM1 and CAM2. A callout states: "Some settings sub-fields use checkboxes".
- Power Connection Section:**
 - Type:** Drop-down menu showing "KP2-OBD-PWR". A callout states: "Some settings sub-fields use drop-down selection".
 - ACC On Voltage 12v (10000~18000):** Text field with "13000" and "mV".
 - ACC On Voltage 24v (20000~30000):** Text field with "27000" and "mV".
 - Delayed ACC Off:** Drop-down menu showing "5 Sec".
- Power ON/OFF Section:**
 - Delayed Power Shutdown:** Time selection fields showing "00" and "15".
 - Power Off Voltage (10000~50000):** Text field with "11000" and "mV".
 - Register Interval:** Time selection fields showing "00" and "00".
 - Wake-up Interval:** Drop-down menu showing "Off".
- Buttons at the bottom:**
 - About:** Callout: "Click About to see configuration tool version information".
 - Settings:** Callout: "Click Settings to change the language".
 - Initialize SD Card:** Callout: "Click Initialize SD Card to prepare SD card".
 - Open:** Callout: "Click Open to load a previously saved configuration".
 - Save:** Callout: "Click Save after each settings tab configuration".
 - Eject SD Card:** Callout: "Click Eject SD Card at the end of the configuration process".



ADAS Event Definitions

3.1 ADAS Event Definitions

To better understand the settings and functions of **ADAS** (Advanced Driver Assistance Systems) events in the [Event](#) tab, review the definitions and related conditions below.

Event Type	Event Definition	Detection Conditions & Configuration Values
FCW	Forward Collision Warning - Detects an imminent collision with something ahead.	Detection Conditions Vehicles must surpass a minimum speed and be moving within the configured speed range. After a previous FCW event trigger, subsequent FCW triggers will only occur once the vehicle exceeds 5 meters/16 feet from the vehicle in front for more than 2 seconds. Configuration Values: Review various configuration settings in greater detail here .
LDW	Lane Departure Warning – Your vehicle crosses a solid lane line on either side of the road.	Detection Conditions Vehicles must surpass a minimum speed to enable LDW. Event type only recognizes solid lane lines. Configuration Values: Review various configuration settings in greater detail here .
HMW	Headway Monitoring Warning - Monitors distance to the vehicle ahead at configurable speeds. Also referred to as “Tailgating.”	Detection Conditions HMW has three distinct speed ranges (low/middle/high) for detecting headway distances, with corresponding distance thresholds. Vehicles must be moving within the configured speed range. The furthest threshold distance is 20 meters or approximately 66 feet. Configuration Values: Review various configuration settings in greater detail here .



DSM Event Definitions

3.2 DSM Event Definitions

To better understand the settings and functions of **DSM** (Driver State Monitoring) events in the [Event](#) tab, please see the definitions and sensitivity conditions below.

Event Type	Event Definition	Event Details
Fatigue	Driver Fatigue Warning (DFW) – Driver is yawning or has prolonged eyelid closure.	Calibration Requirements Driver position requires manual calibration through the KP2 Installer App for initial installation. Post-installation, auto calibration occurs during vehicle trips and is recommended. Auto calibration intervals are configurable. Detection Conditions Sensitivity % measures the height of the driver's mouth opening. Fatigue event trigger must meet either of the following conditions: • Driver's mouth opening (yawning) is <i>greater</i> than the sensitivity % for <i>longer</i> than the sensitivity time. • Driver's eyelids are closed for <i>longer</i> than the sensitivity time. Follow this link to review an example.
Distraction	Driver Distraction Warning (DDW) – Driver's head and eyes are off the road for a prolonged period of time.	Calibration Requirements Driver position requires manual calibration through the KP2 Installer App during the initial installation. Post-installation, auto calibration occurs during vehicle trips and is recommended. Auto calibration intervals are configurable. Detection Conditions Two critical values determine the calibrated head area of the driver: • Yaw deviation – Degree difference from the camera's center line axis to the driver's face • Pitch deviation – Degree difference from the ceiling of the vehicle to the top of the driver's head



DSM Event Definitions

		Sensitivity % measures the change in degrees of the driver's head area. 30% to 50% is recommended. More than 90% is not recommended. Associate this value, 90% (90°), with the maximum change in head area. Distraction event triggers must meet the following condition: The driver's face <i>exceeds</i> the calibrated head area by the sensitivity % for <i>longer</i> than the sensitivity time.
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Device

4 Configuring Your Device

Goal: Personalize and optimize device settings

4.1 How to Configure Device Tab

Device Tab Layout: At a Glance

The screenshot shows the 'KP2 Config Tool' window with the 'Device' tab selected. The window has a tabbed interface with 'Device', 'Record', 'Event', 'Info.', 'Connectivity', and 'Server'. The 'Device' tab contains three main sections: 'Camera', 'Power Connection', and 'Power ON/OFF'. Red numbered callouts (1-8) point to specific settings: 1 points to the 'CAM1' text box; 2 points to the 'Type' dropdown menu; 3 points to the '13000' value in the 'ACC On Voltage 12v' field; 4 points to the '5 Sec' dropdown in the 'Delayed ACC Off' field; 5 points to the '15' value in the 'Delayed Power Shutdown' field; 6 points to the '11000' value in the 'Power Off Voltage' field; 7 points to the '00' value in the 'Register Interval' field; and 8 points to the 'Off' dropdown in the 'Wake-up Interval' field. At the bottom, there are buttons for 'About', 'Settings', 'Initialize SD Card', 'Open', 'Save', and 'Eject SD Card'.

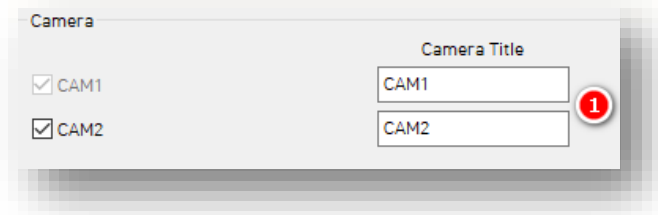
Section	Setting	Value	Callout
Camera	CAM1	CAM1	1
	CAM2	CAM2	
Power Connection	Type	KP2-OBD-PWR	2
	ACC On Voltage 12v (10000~18000)	13000 mV	3
	ACC On Voltage 24v (20000~30000)	27000 mV	
	Delayed ACC Off	5 Sec	4
Power ON/OFF	Delayed Power Shutdown	00 : 15	5
	Power Off Voltage (10000~50000)	11000 mV	6
	Register Interval	00 : 00	7
	Wake-up Interval	Off	8



Device

Camera

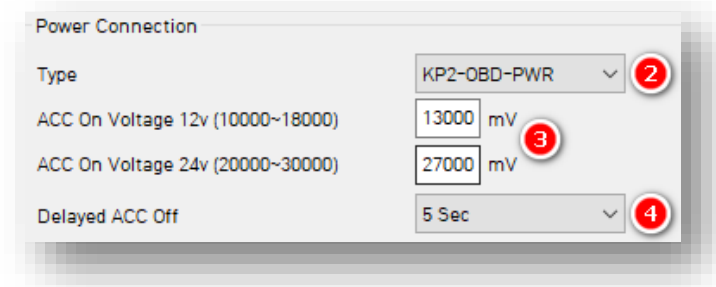
1. Activate your road-facing camera channel, **CAM2**. A KP2 driver-facing camera is required. Deactivating **CAM2** removes the ability to change video channel settings in the [Record](#) tab and DSM settings in the [DSM](#) tab.



Power Connection

2. To automatically apply appropriate power settings, select the device power **Type**. Using **KP2-Cig-PWR** prevents access to **Power On/Off** settings.
3. Manually adjust these values to your preferred **ACC On Voltage 12v** and **ACC On Voltage 24v**.
4. To continue device operations for a limited period when ACC is off, select a **Delayed ACC Off**.

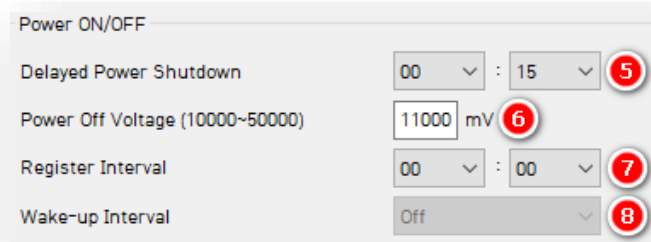
Note: ACC On Voltage 12v, ACC On Voltage 24 and Delayed ACC Off are only available for the KP2-OBD-PWR type.



Device

Power ON/OFF

5. Select the time your KP2 remains on after ignition off with **Delayed Power Shutdown**.
6. Enter a **Power Off Voltage**. This signals the device shut down due to declining vehicle battery voltage to protect battery drainage.
7. Set the time your KP2 stays awake during its Wake-up Interval by choosing a **Register Interval**.
8. Set a time that your KP2 powers on again after shutting down by selecting your **Wake-up Interval**.



The screenshot shows a configuration window titled "Power ON/OFF" with four settings, each marked with a red circle containing a number:

Setting	Value	Unit	Label
Delayed Power Shutdown	00 : 15		5
Power Off Voltage (10000~50000)	11000	mV	6
Register Interval	00 : 00		7
Wake-up Interval	Off		8



Record

4.2 How to Configure Record Tab

Record Tab Layout: At a Glance

The screenshot shows the 'Record' tab of the 'KP2 Config Tool' window. The interface includes several sections: 'Channel' settings for Resolution, FPS, and Quality; 'Data Usage Calculation' for Disk Size; 'Video Data' for Record Mode, Continuous/Event recording levels, Pre-Event/Post-Event durations, and checkboxes for Parking Mode, Record Audio, and By Panic; and 'Telematics Data' for Data Retention Period. Numbered callouts (1-10) highlight specific configuration elements: 1. Channel Resolution dropdown, 2. Channel FPS dropdown, 3. Channel Quality dropdown, 4. Record Mode dropdown, 5. Event recording level slider, 6. Pre-Event duration dropdown, 7. Post-Event duration dropdown, 8. Parking Mode checkbox, 9. Encryption No. text field, 10. Telematics Data Retention Period dropdown. The bottom of the window features buttons for About, Settings, Initialize SD Card, Open, Save, and Eject SD Card.

Channel	Resolution	FPS	Quality
CH1	1080p	5	High
CH2	1080p	5	High

Data Usage Calculation
Disk Size: 64GB
Calculate

Video Data
Record Mode: Continuous
Continuous: 50 %
Event: 50 %
Pre-Event: 10 Sec
Post-Event: 10 Sec
☒ Parking Mode (Continuous Mode Only)
☐ Record Audio
☐ By Panic

Telematics Data
☐ Data Retention Period: 0 Days / 2 Hours

Buttons: About, Settings, Initialize SD Card, Open, Save, Eject SD Card

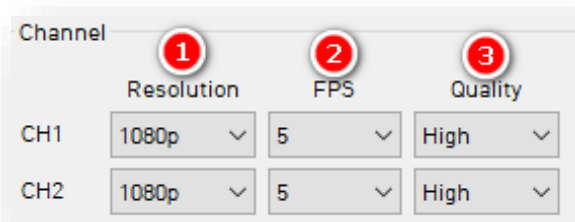


Record

Channel

1. Select your **Resolution** for **CH1**, **CH2**:
 - HD (720p), FHD (1080p).
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.

Note: Selecting different video recording options may affect your on-device storage capacity.

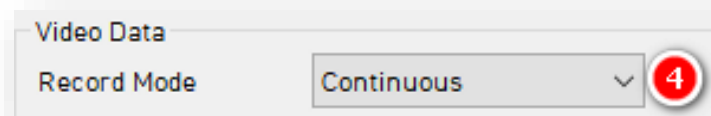


The screenshot shows a settings panel for two channels, CH1 and CH2. Each channel has three dropdown menus: Resolution, FPS, and Quality. Red numbered circles (1, 2, 3) are placed above the Resolution, FPS, and Quality headers respectively. For both CH1 and CH2, the Resolution is set to 1080p, FPS is set to 5, and Quality is set to High.

Channel	Resolution	FPS	Quality
CH1	1080p	5	High
CH2	1080p	5	High

Video Data

4. Select your preferred **Record Mode**:
 - **Event:** Events only. Pre and post-event settings determine recording settings.
 - **Continuous (Default & Recommended):** Video continuously records. No events record separately on the SD card (Events are still sent to SmartAPI if configured on 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 chosen FPS.



The screenshot shows a settings panel for Video Data. It contains a single dropdown menu labeled 'Record Mode' which is currently set to 'Continuous'. A red numbered circle (4) is placed to the right of the dropdown.

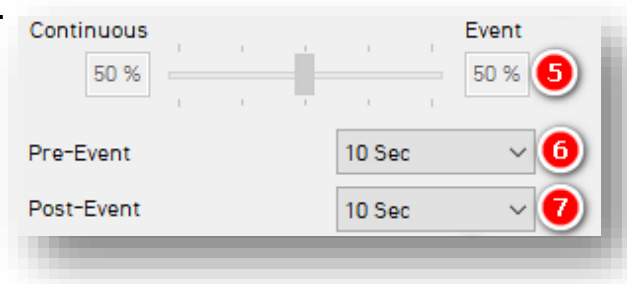
Video Data
Record Mode: Continuous



Record

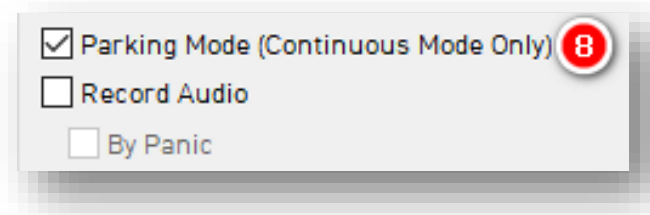
5. Set the **Continuous+Event** ratio of video data recording (applicable only when you set Continuous+Event record mode).
6. Select your **Pre-Event** setting to determine the amount of time video records before an event
7. To set the amount of time video records after an event, select a **Post-Event** setting.

8.



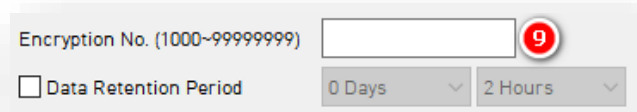
Parking Mode reduces your camera's FPS to 1 when your vehicle is idle for 5 min.

- Click **Record Audio** to turn on the device's internal microphone for audio recording.
- Click **By Panic** to trigger audio recordings only when you press the panic button. In this case, audio records for 2 minutes.



Record

9. Protect SD card data from being easily viewable by entering a 4 to 8-digit **Encryption No.**
 - Set how long video data remains on the SD card before being rewritten via **Data Retention Period.**

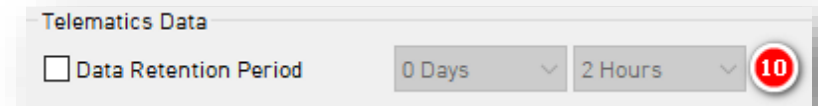


Encryption No. (1000~99999999) 9

☐ Data Retention Period 0 Days 2 Hours

Telematics Data

10. Select the **Data Retention Period**, or how long telematics data (DRV file) remains on the SD card before being rewritten.
 - Use the **Data Usage Calculation** to estimate your SD card's storage capacity based on your applied recording settings.



Telematics Data

☐ Data Retention Period 0 Days 2 Hours 10

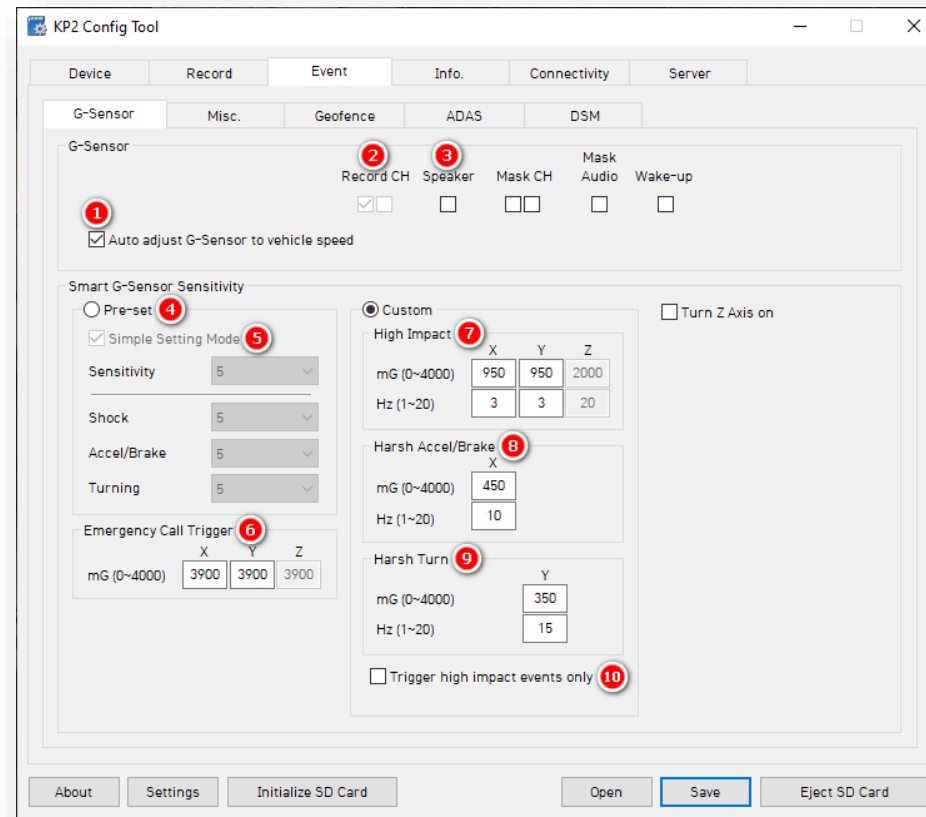


Event

4.3 How to Configure Event Tab

4.3.1 G-Sensor Fields

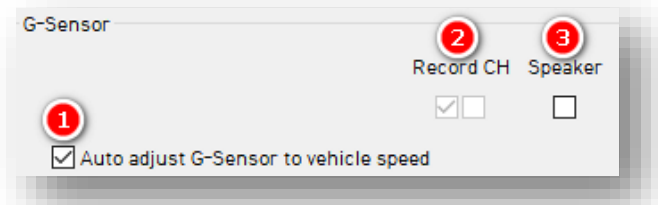
Event > G-Sensor Tab Layout: At a Glance



Event > G-Sensor

G-Sensor

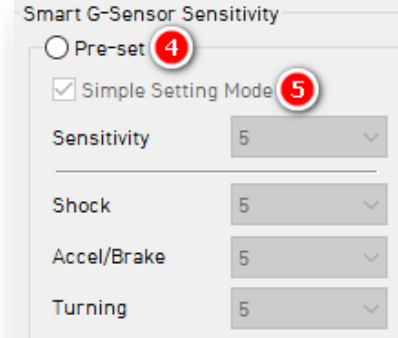
1. Automatically scale G-Sensor speed thresholds by clicking **Auto adjust G-Sensor to vehicle speed**. This increases your G-Sensor event threshold on each axis by 300mcg when your vehicle speed exceeds 20 km/h.
2. To specify event recordings for camera channels 1 and 2, check **Record CH**.
 - Only available for Event and Continuous+Event modes.
3. Turn on in-vehicle notifications for G-Sensor event triggers by clicking **Speaker**.



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**.

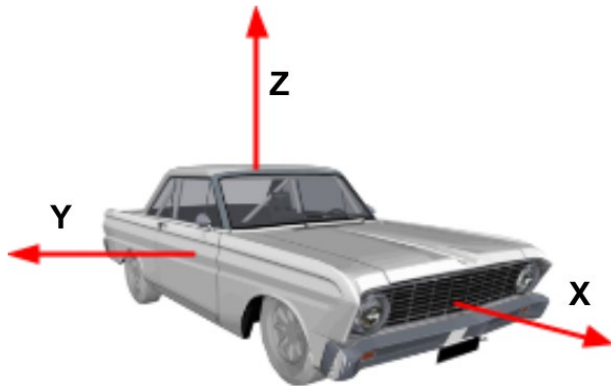


Event > G-Sensor

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

Emergency Call Trigger **6**

	X	Y	Z
mG (0~4000)	3900	3900	3900



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

7. **High Impact** events occur if acceleration exceeds the X, Y or Z axis threshold (Activate the Z axis via **Turn Z Axis on**).
8. **Harsh Accel/Brake** events generate if acceleration exceeds X, Y or Z axis thresholds.

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.

☒ Custom

High Impact **7**

	X	Y	Z
mG (0~4000)	950	950	2000
Hz (1~20)	3	3	20

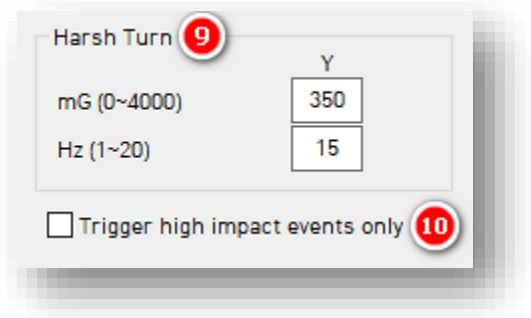
Harsh Accel/Brake **8**

	X
mG (0~4000)	450
Hz (1~20)	10



Event > G-Sensor

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



Harsh Turn 9

mG (0~4000)	Y 350
Hz (1~20)	15

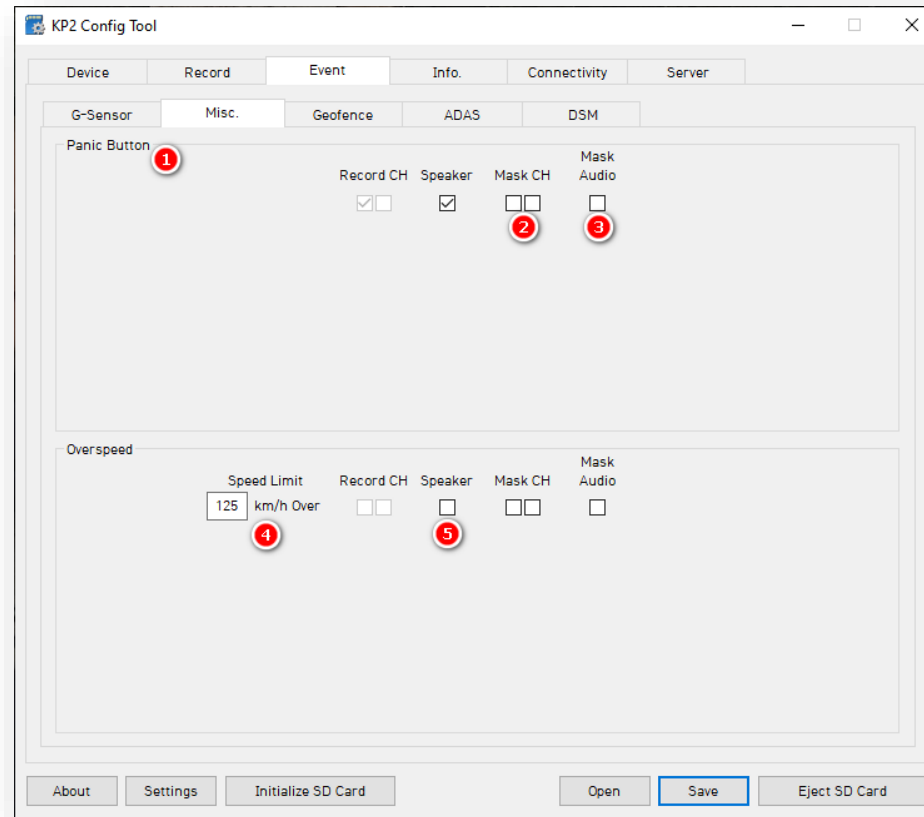
☐ Trigger high impact events only 10



Event > Misc.

4.3.2 Misc. Fields

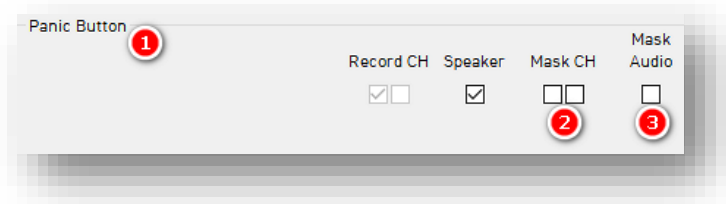
Event > Misc. Tab Layout: At a Glance



Event > Misc.

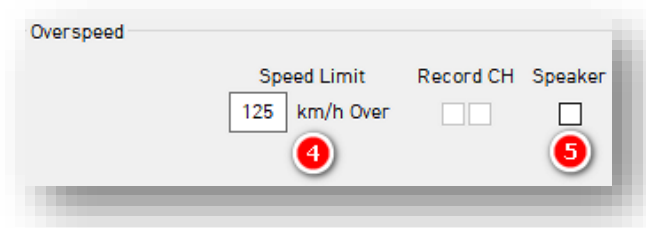
Panic Button

1. Determine your **Panic Button** response settings.
2. To obscure camera channels 1 and 2 during Panic events, check **Mask CH**.
3. To prevent the device's audio recording during Panic events, check **Mask Audio**.



Overspeed

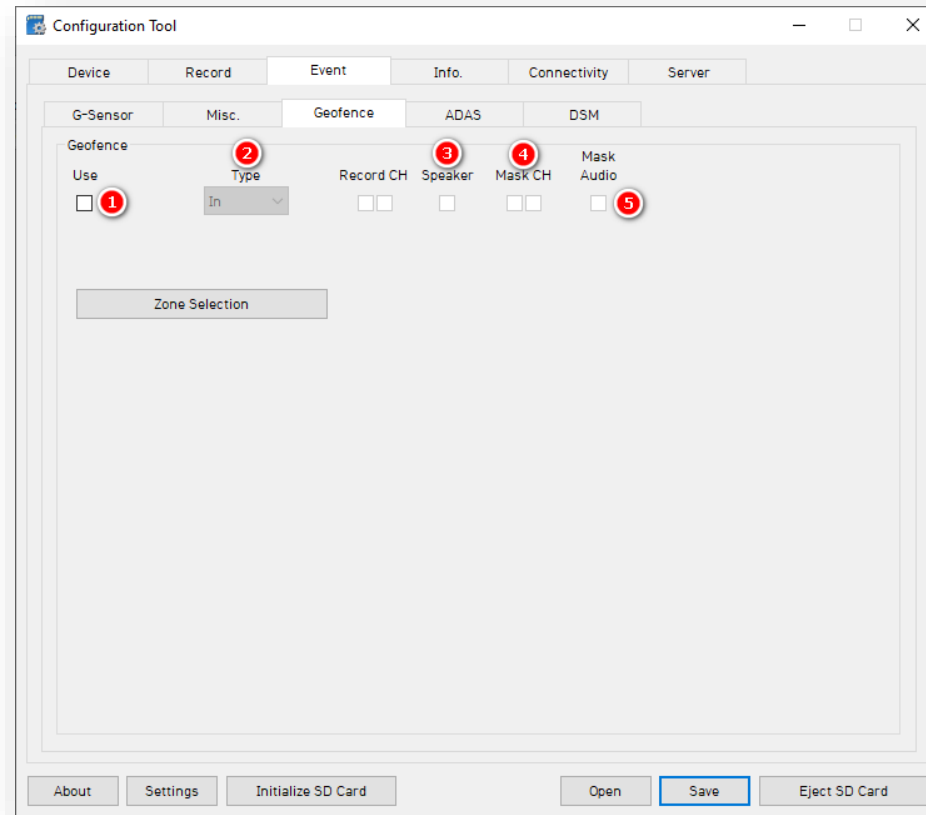
4. Set your speed threshold for recording Overspeed events by entering a **Speed Limit**.
 - This accounts for vehicle speed only, not posted speed limits.
5. Turn on audible alerts for Overspeed events by clicking **Speaker**.



Event > Geofence

4.3.3 Geofence Fields

Event > Geofence Tab Layout: At a Glance

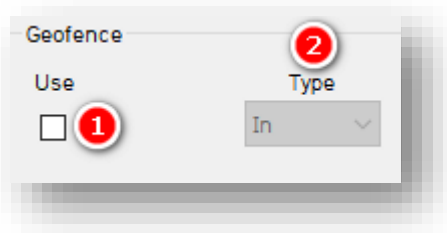


Event > Geofence

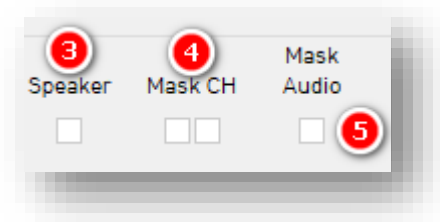
Geofence

Set virtual boundaries for your device to trigger Geofence events.

1. To trigger a Geofence, check **Use**.
2. Select the **Type** of Geofence.
 - **In** activates a Geofence when the vehicle *enters* a geographic boundary.
 - **Out** activates a Geofence when the vehicle *exits* a geographic boundary.



3. Audibly notify drivers that they've crossed a Geofence's boundary by clicking **Speaker**.
4. To obscure camera channels 1 and 2, check **Mask CH**.
5. To prevent audio recording within a Geofence, click **Mask Audio**.



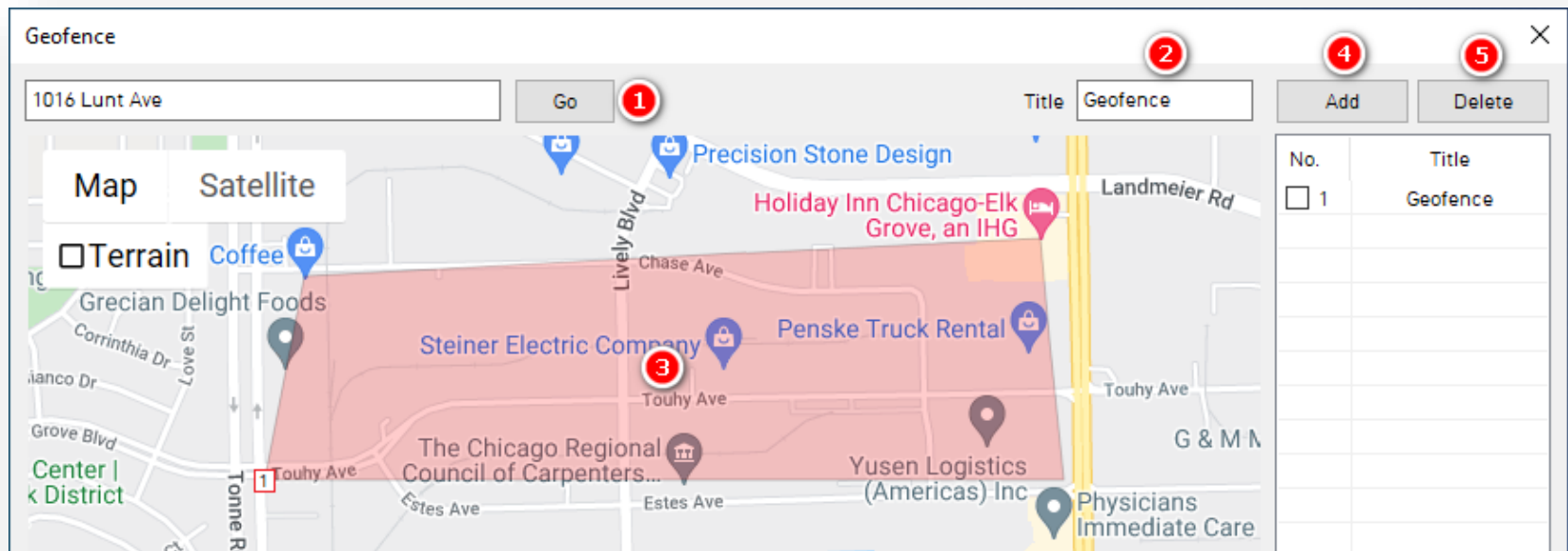
Event > Geofence

Zone Selection

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

1. Search for a geographic region by entering an address and clicking **Go**.

2. Change the name of your Geofence in the **Title** text field.
3. Click on the map to set a perimeter. The area in **red** is your Geofence.
4. Set your Geofence by clicking **Add**.
5. To remove a Geofence, check **No.** and click **Delete**.



Event > ADAS

4.3.4 ADAS Fields

Event > ADAS Tab Layout: At a Glance

The screenshot shows the 'KP2 Config Tool' window with the 'Event' tab selected. The 'ADAS' sub-tab is active, displaying various configuration options for the ADAS system. Red numbered callouts (1-15) highlight specific fields:

- 1: ☐ Use
- 2: Bonnet / Horizon
- 3: Camera Height (0~1000) cm
- 4: ☒ HMW
- 5: Sensitivity
- 6: Speed
- 7: Distance
- 8: Speaker
- 9: Detect Interval
- 10: Multiple Event Escalation Time
- 11: Lv2 Counter
- 12: ☒ FCW
- 13: TTC
- 14: ☒ LDW
- 15: Left line Sensitivity

The configuration fields include:

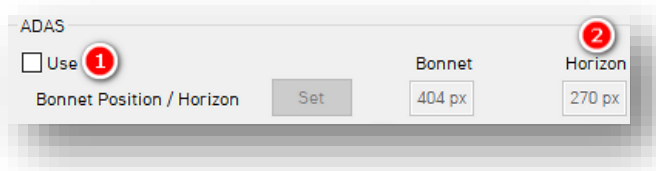
- Bonnet Position / Horizon: Set, 404 px, 270 px
- Camera Height (0~1000): 180 cm
- ADAS Type: ☒ HMW, 1 Sec, Sensitivity, Speed (40, 71, 101 km/h Over), Distance (15, 18, 20 m), Speaker (All), Detect Interval (3 Sec), Multiple Event Escalation Time (100 Sec), Lv2 Counter (3)
- FCW: ☒ FCW, 50 km/h Over (40~160), TTC (1.0 Sec), 3 Sec
- LDW: ☒ LDW, 40 km/h Over (40~160), Left line Sensitivity (3), Right line Sensitivity (3), 3 Sec

Buttons at the bottom: About, Settings, Initialize SD Card, Open, Save, Eject SD Card.

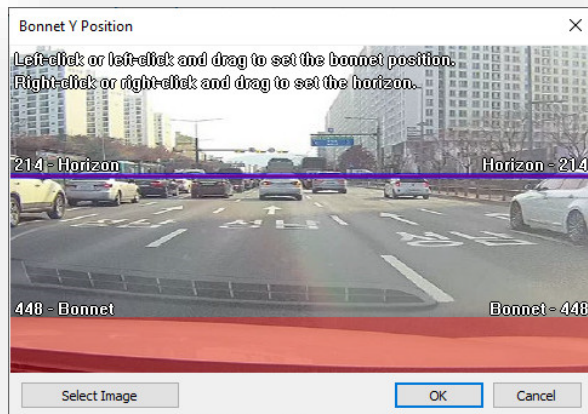


Event > ADAS

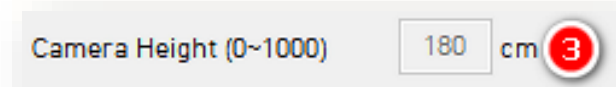
1. Turn on ADAS feature capabilities by clicking **Use**. This gives you access to enable ADAS events and change individual settings independently.
2. To mark the **Bonnet Position** (vehicle hood's horizontal pixel line) and **Horizon** line, click **Set**.



- Use the pop-out window to set each line and click **OK** to save.



3. Mark the **Camera Height** on the windshield. This measurement is from the ground to the center of the camera lens. Set your camera height in 10cm increments.
 - Example: if the height is 173cm, set the **Camera Height** as 170cm.
 - This setting is integral to proper ADAS calibration, so ensure you have inputted measurements correctly.



Event > ADAS

ADAS Type

4. Click **HMW** to activate the event type.
5. To set the amount of time your vehicle must be within a speed/distance window to trigger an event, select a **Sensitivity**.
6. Establish the **Speed** range for event activation. The configurable threshold must be surpassed for HMW in each speed window. Within this window, events will trigger.
7. Set the **Distance** threshold. An event triggers if this distance, measured from the front end of the driver's vehicle to the rear of the vehicle ahead, is breached and the speed threshold is surpassed.

ADAS Type

☒ HMW 1 Sec Sensitivity

Speed	Distance
40 km/h Over (40~70)	15 m (10~20)
71 km/h Over (71~100)	18 m (10~20)
101 km/h Over (101~160)	20 m (10~20)

8. To determine the conditions for in-cabin alerts, select a **Speaker** setting. **All** plays Lv1 and Lv2 audio alerts.

Note: You can determine the type of sound received by drivers [here](#).

9. Define a time, or **Detect Interval**, during which KP2 disregards repeated event instances.
 - Example: If the interval is set to 10 sec, and an event triggers continuously for 10 sec, only one event is delivered.

Speaker Detect Interval

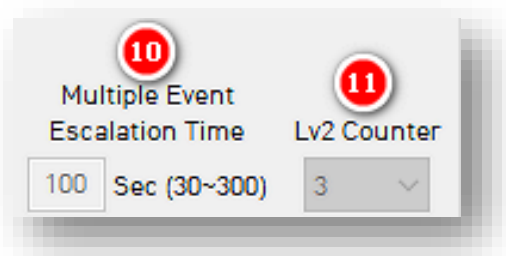
All 3 Sec



Event > ADAS

10. Select a **Multiple Event Escalation Time**. If the vehicle exceeds the number of tailgating instances set in Lv2 Counter during the Escalation Time, event severity escalates to Lv2 or “Level 2.”
 - Example: A time of 100 seconds with an Lv2 setting of “3” is set. If an event triggers more than three times, the event raises to Lv2.
11. Choose the **Lv2 Counter** or number of event instances required during the Escalation Time to raise severity.

Note: Multiple Event Escalation Time and Lv2 Counter manage event reporting. They are not correlated with event detection sensitivity.



12. Check **FCW** to enable the event type.
13. **TTC**, or Time to Collision, is a value that determines the amount of time until approximate collision.
 - TTC is based on the driver’s vehicle speed and the apparent speed of the vehicle ahead.
 - We recommend that the *higher* your speed threshold, *the greater* the TTC setting.
 - TTC resolution time is as follows:
 - 0.1 sec if TTC < 1 sec
 - 0.5 sec if TTC > 1 sec



Event > ADAS

14. Select **LDW** to enable the event type.

15. Set the **Left line Sensitivity** and **Right line Sensitivity**. This determines the AI confidence level regarding solid lane line detection.

- Lower line detection sensitivity results in *fewer* events triggered.
- The *higher* the line detection sensitivity, the *greater* number of events triggered.
- A setting of **3** is recommended.

Note: LDW lane detection does not incorporate color recognition.



The screenshot shows a configuration window for ADAS. On the left, a red circle with the number 14 points to a checkbox labeled 'LDW' which is checked. To its right is a text input field containing '40' followed by the label 'km/h Over (40~160)'. On the right side of the window, there are two columns: 'Left line Sensitivity' and 'Right line Sensitivity'. Both columns have a dropdown menu currently set to '3'. A red circle with the number 15 points to these dropdown menus.

Left line Sensitivity	Right line Sensitivity
3	3



Event > DSM

4.3.5 DSM Fields

Event > DSM Tab Layout: At a Glance

The screenshot shows the 'KP2 Config Tool' window with the 'Event' tab selected. The 'DSM' sub-tab is active, displaying various configuration options for Driver Safety Monitoring. Red numbered callouts (1-10) highlight specific fields:

- 1: ☒ Use
- 2: Speed (0~200) 0 ~ 200 km/h
- 3: ☒ Auto Calibration
- 4: Driver Position (Right-hand drive, Left-hand drive, Center position)
- 5: Manual Detect button
- 6: Auto Calibration Minimum Speed 20 km/h (0~200)
- 7: Auto Calibration Time 30 Sec
- 8: Auto Calibration Interval 30 Min
- 9: ☒ Fatigue
- 10: DSM Type (Fatigue, Distraction)

Additional visible fields include:

- Head Area / Camera Position
- Yaw Deviation 0 °
- Pitch Deviation 0 °
- Auto Calibration Interval 30 Min
- Speaker All
- Detect Interval 3 Sec
- Multiple Event Escalation Time 100 Sec (30~300)
- Lv2 Counter 3

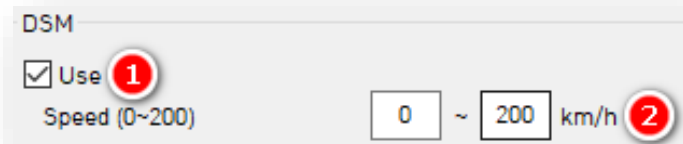
Buttons at the bottom: About, Settings, Initialize SD Card, Open, Save, Eject SD Card.



Event > DSM

DSM

1. Activate DSM event capabilities by clicking **Use**. This gives you access to enable DSM events and change individual settings independently.
2. Limit DSM events to a specified range by setting **Speed** values.

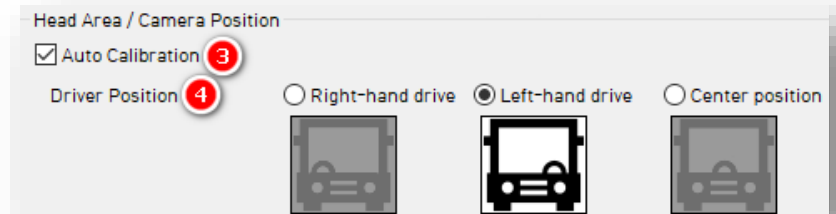


Note: Changing minimum speed values within the speed range affects the device's autocalibration capabilities. Ensure the minimum DSM **Speed** value does not exceed the **Auto Calibration Minimum Speed**.

Head Area/Camera Position

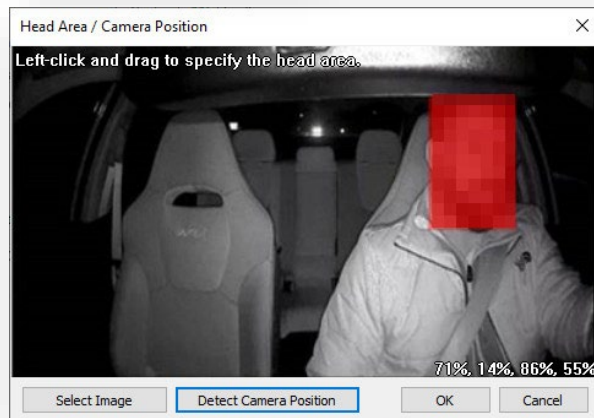
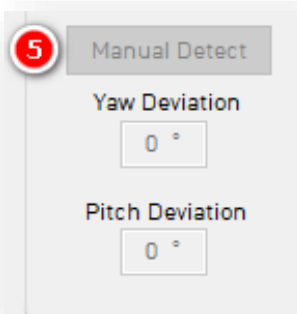
You may automatically or manually set a driver's position. See steps 3-5 for automatic or step 6 for manual calibration.

3. To automatically recalibrate a driver's head and camera position for DSM event detection, click **Auto Calibration**.
4. Select the **Driver Position** in the vehicle.



Event > DSM

5. To manually mark a driver's head area, click **Manual Detect**. Only use this feature if the driver's head position is fixed.
- Use the pop-up window to specify the area and click **OK**.



Yaw Deviation calculates automatically once the driver's head area is set.



Pitch Deviation calculates automatically once the driver's head area is set.



Event > DSM

6. Specify a threshold to enable auto calibration functions via **Auto Calibration Minimum Speed**. It is recommended to set a speed above 30 km/h to improve calibration accuracy.
7. Choose the **Auto Calibration Time** for your camera (30 sec recommended).
8. To set a threshold for the device auto re-calibration period, select an **Auto Calibration Interval**.

Auto Calibration Minimum Speed 20 km/h (0~200) 6

Auto Calibration Time 30 Sec 7

Auto Calibration Interval 30 Min 8

DSM Type

9. To assign various DSM triggers, check behaviors like **Fatigue**.
10. Set a **Sensitivity** % and the time necessary to trigger an alert.
 - **Example:** Fatigue events trigger when eyelid closure occurs for 3 or more seconds or if yawning exceeds 50% (2.5 cm) for the same period.

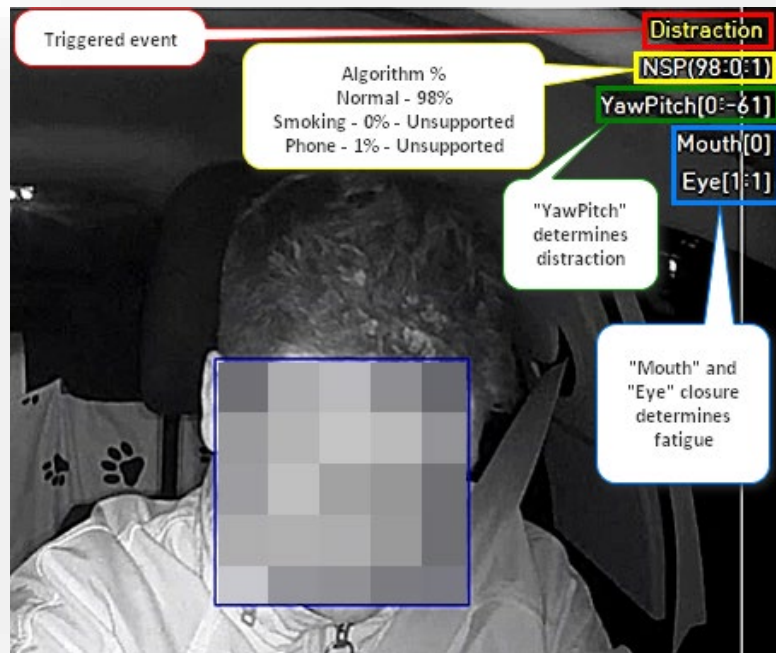
DSM Type		Sensitivity	
☒	Fatigue	50 %	3 Sec
☒	Distraction		
	Looking Right	50 %	2 Sec
	Looking Left	50 %	2 Sec
	Looking Down	50 %	2 Sec

Note: Review details about other settings, such as Multiple Event Escalation Time, [here](#). Despite these values being ADAS settings, the logic is the same.



Event > DSM

Review the image and corresponding values below to see how edge analysis identifies a DSM event.



Note: "Drowsiness" in the settings.ini file equates to "Fatigue" in the configuration tool.



Info > Date/Time

4.4 How to Configure Info Tab

4.4.1 Date/Time Fields

Setting time preferences on your KP2 is **not recommended**. PC Viewer software and SmartAPI automatically adjust UTC to your local time zone. **If you've connected your KP2 to SmartAPI, 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' configuration window. It has two tabs: 'Date/Time' (selected) and 'Service'. The 'Time Zone' is set to 'UTC'. A button labeled 'Retrieve time settings from my PC' is in the top right, with a red circle '3' above it. Below this, there is a checkbox for 'Daylight Saving Time' with a red circle '1' next to it. Under 'Daylight Saving Time', there are two rows of dropdown menus for 'Start' and 'End'. The 'Start' row is set to 'Jan.', '1st', 'Sunday', and '8 o'clock'. The 'End' row is also set to 'Jan.', '1st', 'Sunday', and '8 o'clock'. At the bottom, there is a checked checkbox for 'Time Sync' with a red circle '2' next to it.



Info > Service

4.4.2 Service Fields

Info > Service Tab Layout: At a Glance

The screenshot shows the 'KP2 Config Tool' window with the 'Info' tab selected. The 'Service' sub-tab is active. The interface is divided into several sections: 'System', 'System Warning', 'Event', and 'User Management'. Red circles with numbers 1 through 10 highlight specific fields and controls. At the bottom, there are buttons for 'About', 'Settings', 'Initialize SD Card', 'Open', 'Save', and 'Eject SD Card'.

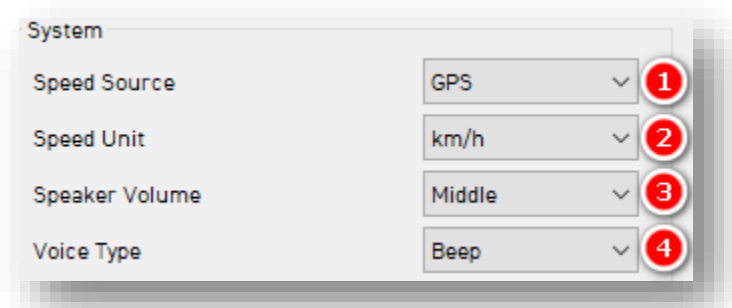
Section	Field/Control	Value/State	Callout
System	Speed Source	GPS	1
	Speed Unit	km/h	2
	Speaker Volume	Middle	3
	Voice Type	Beep	4
	Bluetooth Panic	Flic	5
	Bluetooth Button Function	Panic Button	6
	Button Function	Emergency Call	7
System Warning	Use	Checked	8
	Source	SD Card, Video Loss, EMMC, Temperature, AUX	
Event	Alarm LED	Checked	
	Speaker	Checked	
User Management	Vehicle No		9
	Driver ID		10



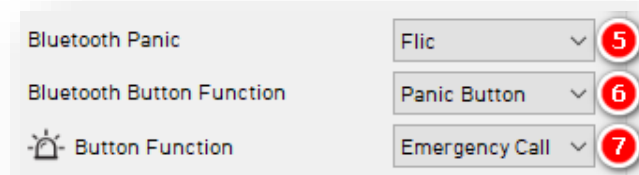
Info > Service

System

1. Your KP2 uses true vehicle speed data from the vehicle bus as a **Speed Source** whenever possible. Without vehicle speed data, the device will use GPS-sourced speed to inform related calculations (e.g., ADAS).
2. Set a preferred **Speed Unit**.
3. Set your device's audio levels by choosing a **Speaker Volume**.
4. Select the type of in-cabin alerts for ADAS/DSM events. Either **Beep** or **Voice 1**.

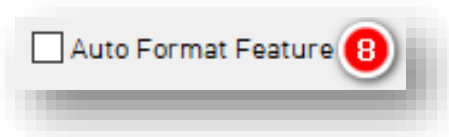


5. Pair your KP2 with a wireless **Bluetooth Panic** button. Find setup specifications on page 8 of the [KP2 User Guide](#). To find more detailed instructions, follow this [link](#). These instructions still apply, despite being for CP2.
6. Use your **Bluetooth Button Function** as an external **Panic Button** or for **Emergency Call** triggers.
7. Set your device's small black **Button Function**.



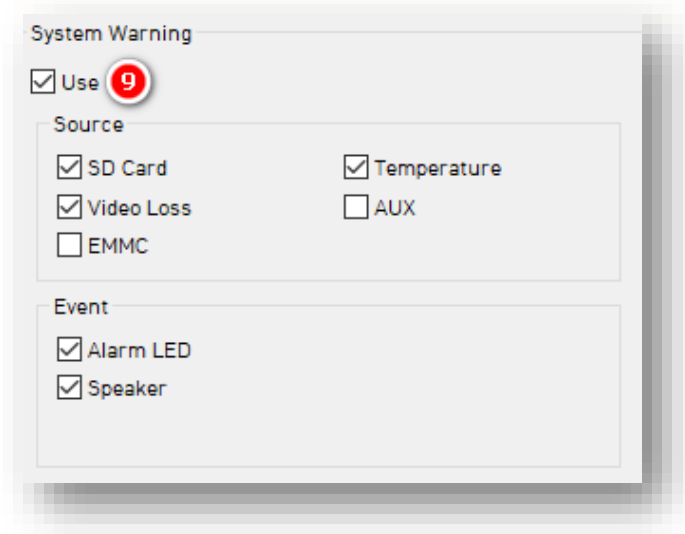
Info > Service

8. KP2 executes SD card necessary maintenance automatically when the **Auto Format Feature** is on.
- This function formats blank SD cards automatically.
 - It will not format corrupted SD cards automatically. Instead, the device sends a “Media Error” event to the server. Optionally, an audible alarm and the red LED will turn on (see [System Warning](#)).



System Warning

9. Provide system component corruption and failure notifications by clicking **Use**.
- Check any/all boxes to allow for those alerts.
 - System Warning **Event** types allow for specific alarms.



Info > Service

User Management

10. To assign a number to your vehicle, check **Vehicle No**, and enter a value.
11. Write a unique **Driver ID** for different vehicles.

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



The screenshot shows a 'User Management' dialog box with two input fields. The first field is labeled 'Vehicle No' and has a red circular icon with the number '10' next to it. The second field is labeled 'Driver ID' and has a red circular icon with the number '11' next to it. Both fields are empty text boxes.



Connectivity

4.5 How to Configure Connectivity Tab

Connectivity Tab Layout: At a Glance

The screenshot shows the 'KP2 Config Tool' window with the 'Connectivity' tab selected. The window has a title bar with standard minimize, maximize, and close buttons. Below the title bar is a tabbed interface with 'Device', 'Record', 'Event', 'Info.', 'Connectivity', and 'Server' tabs. The 'Connectivity' tab is active and contains three main sections: 'Mobile Network', 'Wi-Fi', and 'Voice Call'. Each section has specific configuration fields. Red numbered callouts (1-9) are placed over various UI elements to indicate configuration steps: 1 points to the 'Enable' checkbox, 2 points to the 'Mobile Network' section header, 3 points to the 'STA Mode' radio button, 4 points to the 'AP Mode' radio button, 5 points to the 'AP' dropdown menu, 6 points to the 'SSID' text field, 7 points to the 'Password' text field, 8 points to the 'Outgoing Number' text field, and 9 points to the 'Incoming Number' text field. At the bottom of the window is a row of buttons: 'About', 'Settings', 'Initialize SD Card', 'Open', 'Save', and 'Eject SD Card'. The 'Save' button is highlighted with a blue border.

KP2 Config Tool

Device Record Event Info. **Connectivity** Server

☒ Enable **1**

Mobile Network **2**

Dial No. +99#

APN smartwitness.com.attz

User ID

Password

Wi-Fi

☒ STA Mode **3** ☐ AP Mode **4**

AP 1 **5**

SSID **6**

Password **7**

Passwords must be at least eight characters.

Voice Call

Outgoing Number **8**

Incoming Number **9**

About Settings Initialize SD Card Open **Save** Eject SD Card



Connectivity

Mobile Network

1. Specify mobile and WIFI network settings by clicking **Enable**.
2. Add **Mobile Network** details to relevant fields.



A screenshot of a 'Mobile Network' settings form. At the top left, there is a checkbox labeled 'Enable' with a red circle containing the number '1' next to it. Below this is a section header 'Mobile Network' with a red circle containing the number '2' next to it. Under this header are four input fields: 'Dial No.' with the text '+99#' inside, 'APN' with the text 'smartwitness.com.attz' inside, 'User ID' which is empty, and 'Password' which is empty.

Wi-Fi

3. If choosing a standard setup for your Wi-Fi connection, click **STA Mode**. Select this when connecting to an existing Wi-Fi network (in place of a cellular network connection).
4. When setting up your device as its own access point, click **AP Mode**. Select this if you are creating a network hotspot with your KP2.

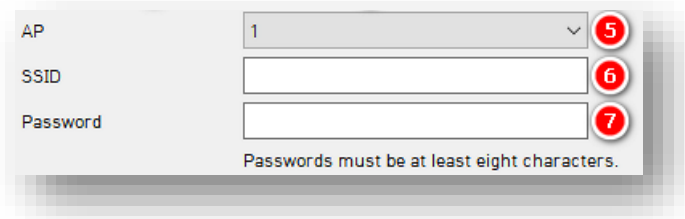


A screenshot of a 'Wi-Fi' mode selection form. It shows two radio button options: 'STA Mode' and 'AP Mode'. The 'STA Mode' radio button is selected and has a red circle containing the number '3' next to it. The 'AP Mode' radio button is unselected and has a red circle containing the number '4' next to it.



Connectivity

5. Set up to 10 Wi-Fi networks your KP2 can connect to for STA mode. Secure the access point with a password and WPA/WPA2 encryption.
6. The KP2 will scan for as many networks as are added in your settings.
7. Your **password** must be at least 8 characters.



AP 1 5

SSID 6

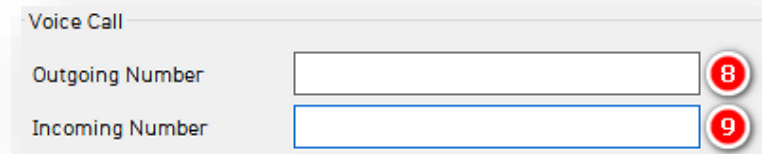
Password 7

Passwords must be at least eight characters.

Voice Call

To use this feature, you must turn on **Emergency Call** and associate **Voice Call** with the on-device or external button functions (see [steps 6 & 7](#) in **Info > Service**). SIM cards require a phone number, and you must activate your SIM for voice communication.

8. Enter your **Outgoing Number**. Press the button associated with the Ecall function. A tone signals connection.
9. Enter your **Incoming Number**. This is the only phone number allowed to call into your KP2.



Voice Call

Outgoing Number 8

Incoming Number 9



Server

4.6 How to Configure Server Tab

4.6.1 Main Fields

Server > Main Tab Layout: At a Glance

The screenshot shows the 'KP2 Config Tool' window with the 'Server' tab selected. The window has a tabbed interface with 'Device', 'Record', 'Event', 'Info.', 'Connectivity', and 'Server'. The 'Server' tab has two sub-tabs: 'Main' and 'Triggered Event'. The 'Main' sub-tab is active, showing various configuration fields. Red numbered callouts (1-7) highlight specific fields: 1 points to the 'License Key' field; 2 points to the 'Transmit Live Tracking Data' checkbox; 3 points to the 'Transmit Event Data' checkbox; 4 points to the 'Transmit Telematics Data (DRV)' checkbox; 5 points to the 'Transmit Emergency Call' checkbox; 6 points to the 'Transmit Temperature Warning' checkbox; and 7 points to the 'CAM2' checkbox in the 'Event Images' section. The 'Domain/Static IP and Port #' field has a placeholder example 'http://DomainName:5000'. The 'Live Tracking Data Type' dropdown is set to 'LiveTrack2'. The 'G-Sensor/Gyro Data' dropdown is set to 'None'. The 'Data Type' dropdown is set to 'Default'. The 'Event FPS' dropdown is set to '1'. The 'Event/Snapshot Quality' dropdown is set to 'Normal'. The 'Pre-Event' and 'Post-Event' dropdowns are both set to '5 Sec'. The 'About', 'Settings', 'Initialize SD Card', 'Open', 'Save', and 'Eject SD Card' buttons are visible at the bottom.

KP2 Config Tool

Device Record Event Info. Connectivity **Server**

Main Triggered Event

Domain/Static IP and Port # ex) http://DomainName:5000

License Key

Transmit

Tracking Data

☐ Transmit Live Tracking Data

Live Tracking Data Type

Telematics Data (DRV)

☐ Transmit Telematics Data (DRV)

G-Sensor/Gyro Data

Data Type

Event Data

☐ Transmit Event Data

☐ Include G-Sensor/Gyro Data

Notification

☒ Transmit Emergency Call

☐ Transmit Temperature Warning

Event Images

☒ CAM1 ☒ CAM2

Pre-Event

Post-Event

Event FPS

Event/Snapshot Quality

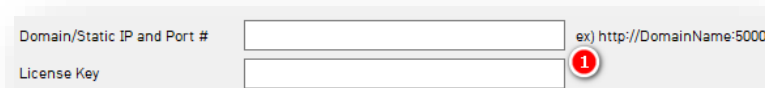
About Settings Initialize SD Card Open **Save** Eject SD Card



Server > Main

Server

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



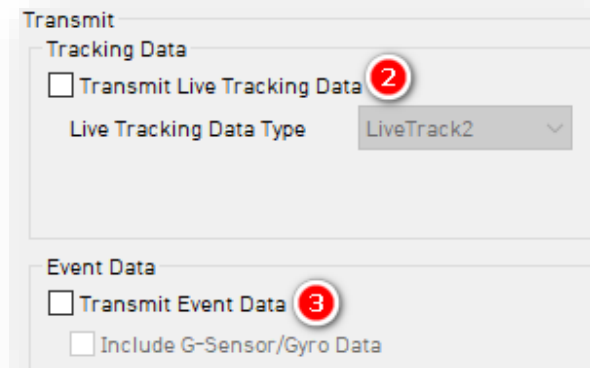
A screenshot of a web form for server configuration. It has two input fields: 'Domain/Static IP and Port #' and 'License Key'. To the right of the first field is an example URL: 'ex) http://DomainName:5000'. A red circle with the number '1' is placed over the first input field.

Transmit

2. To send HTTP posts from your KP2 to the server, click **Transmit Live Tracking Data**. Select from **Live Tracking Data Type** options.

Note: Livetrack2 has GPS coordinates. LiveTrack3 does not.

3. To deliver event notifications and images to the server, select **Transmit Event Data**.



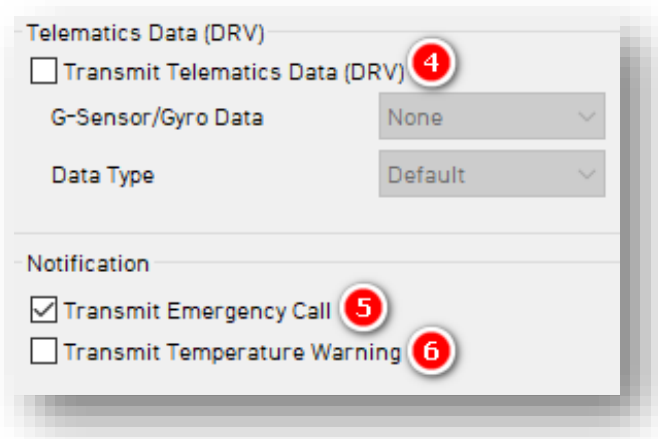
A screenshot of a 'Transmit' configuration window. It has two main sections: 'Tracking Data' and 'Event Data'. In the 'Tracking Data' section, there is a checkbox for 'Transmit Live Tracking Data' (marked with a red circle '2') and a dropdown menu for 'Live Tracking Data Type' currently set to 'LiveTrack2'. In the 'Event Data' section, there is a checkbox for 'Transmit Event Data' (marked with a red circle '3') and a checkbox for 'Include G-Sensor/Gyro Data'.



Server > Main

4. Send DRV data to the server by clicking **Transmit Telematics Data (DRV)**. 4 Hz is the recommended setting. This is the preferred frequency for *AIDE*.
5. To send Ecalls (Severe Shock) to the server, click **Transmit Emergency Call Notification**.
6. To relay device overheating issues to the server, select **Transmit Temperature Warning**.

Note: SmartAPI controls the frequency interval of LiveTrack and DRV uploads.



Telematics Data (DRV)

☐ Transmit Telematics Data (DRV) 4

G-Sensor/Gyro Data: None

Data Type: Default

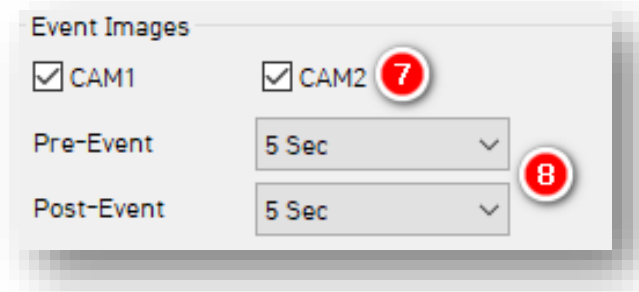
Notification

☒ Transmit Emergency Call 5

☐ Transmit Temperature Warning 6

Event Images

7. Choose which camera channels send event images to the server.
8. Determine snapshot timing before and after an event by selecting **Pre-Event** and **Post-Event** options.



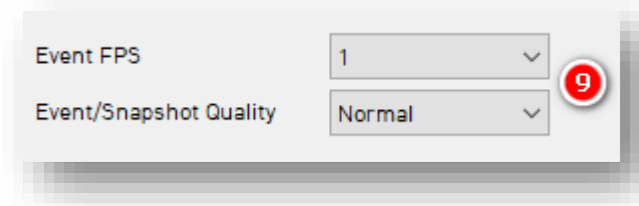
Event Images

☒ CAM1 ☒ CAM2 7

Pre-Event: 5 Sec

Post-Event: 5 Sec 8

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



Event FPS: 1

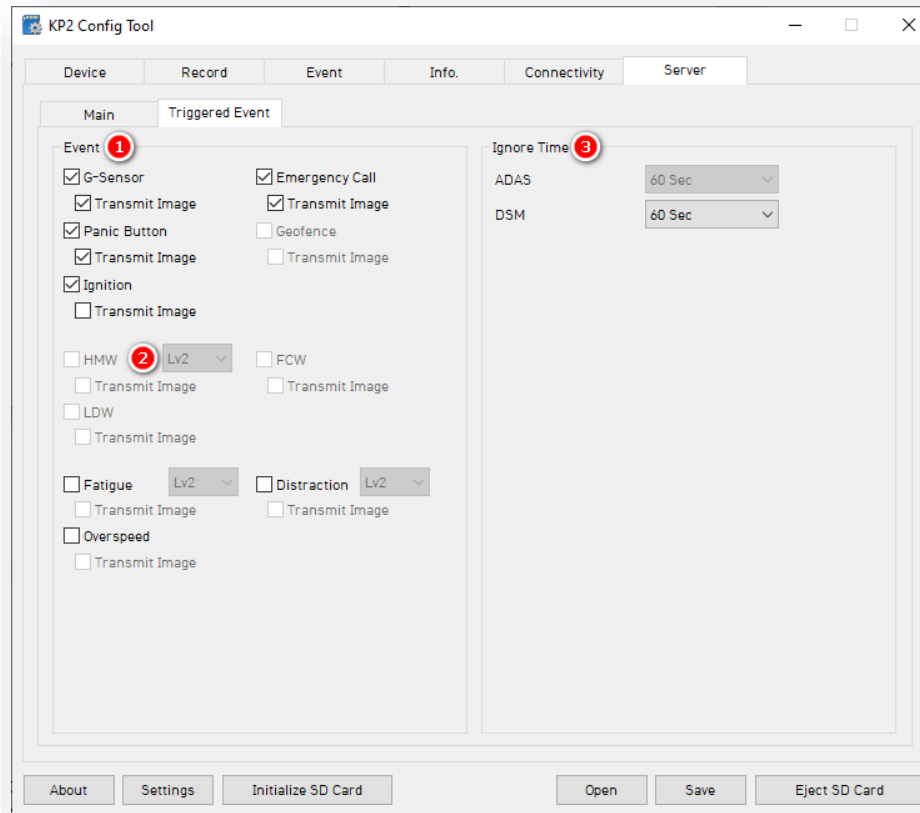
Event/Snapshot Quality: Normal 9



Server > Triggered Event

4.6.2 Triggered Event Fields

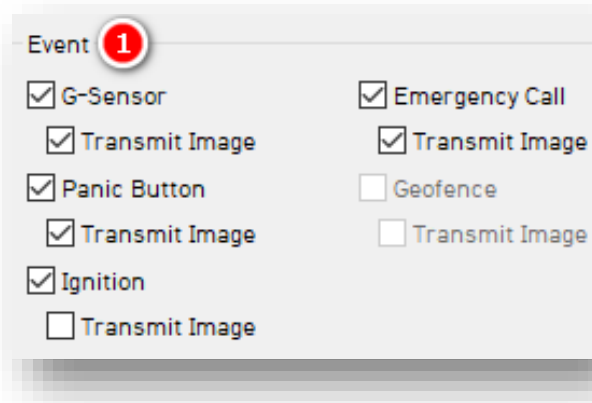
Server > Triggered Event Tab Layout: At a Glance



Server > Triggered Event

Event

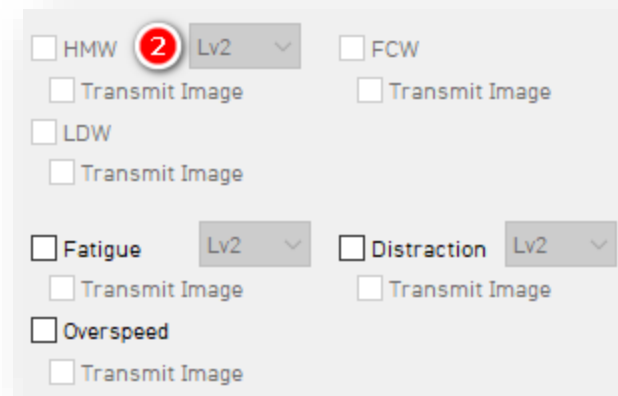
1. Decide what events and notifications your device send to the server by selecting options like **G-Sensor** and **Emergency Call** (Severe Shock). Events will send instantly, even if your device is in “Continuous” record mode.



Event 1	
☒ G-Sensor	☒ Emergency Call
☒ Transmit Image	☒ Transmit Image
☒ Panic Button	☐ Geofence
☒ Transmit Image	☐ Transmit Image
☒ Ignition	
☐ Transmit Image	

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

2. Select the alert severity sent to the server. **Lv2** is a different event payload sent to the server. It is not a separate event type.



☐ HMW	2 Lv2	☐ FCW
☐ Transmit Image		☐ Transmit Image
☐ LDW		
☐ Transmit Image		
☐ Fatigue	Lv2	☐ Distraction Lv2
☐ Transmit Image		☐ Transmit Image
☐ Overspeed		
☐ Transmit Image		



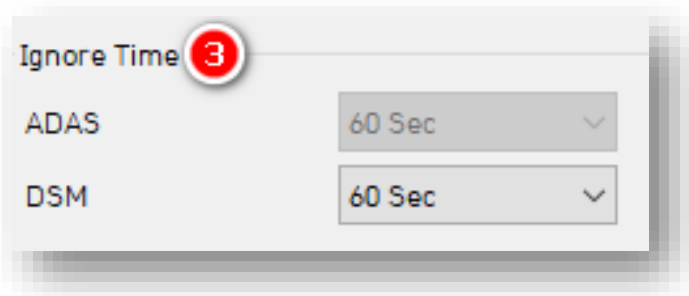
Server > Triggered Event

Ignore Time

Ignore Time sets the length of time repeated events are ignored for event uploads to the server. This is referred to as the “1-minute server rule.”

For **ADAS** and **DSM**, select either of the following:

- **Off**: Disables the feature.
- **60 Sec**: Enables the feature.



Complete Your Configuration

5 Finishing Up/Support

Goal: Completing your Configuration

1. Click **Save** to set your finalized settings configuration.
2. Select **FHDM** 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 KP2, and power on your device.
5. You have completed your configuration.

Note: Apply device configurations over the air from the SmartAPI Workstation. See the instructions [here](#). While KP2 is not mentioned, the same process applies.

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. 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

