

# SmartWitness CP4S

## Device Configuration Guide



# CP4S Setup and Configuration

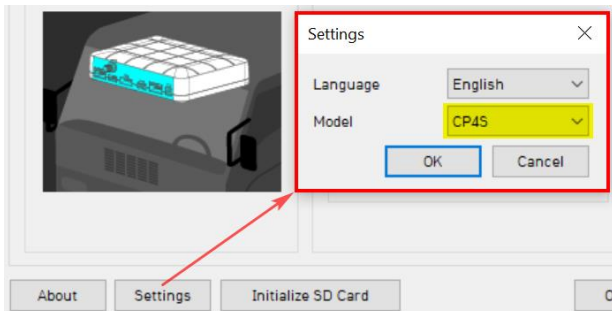


1. Download the CP4S configuration tool 3.3.1 [here](#)
2. Install and open the configuration tool:
  1. Insert SD Card into your PC (Max 128GB SD card supported)
  2. Click 'Initialize SD Card'
  3. Select the SD card from File Explorer
  4. Click "Start" to initialize
3. Apply your desired settings (or click "Open" to load existing settings)
4. Click "Save to apply to SD card"
5. Eject Card safely from your PC

[CLICK HERE FOR VIDEO DEMONSTRATION](#)

**NOTE:** CP4S should be running version 3.3.1 firmware to ensure proper device function and support for all device settings in this guide. Firmware version can be updated over-the-air via Smart API workstation.

# Device Tab



At first use, click "Settings" and set the model to "CP4S"

## Camera

Enable the desired camera channels.

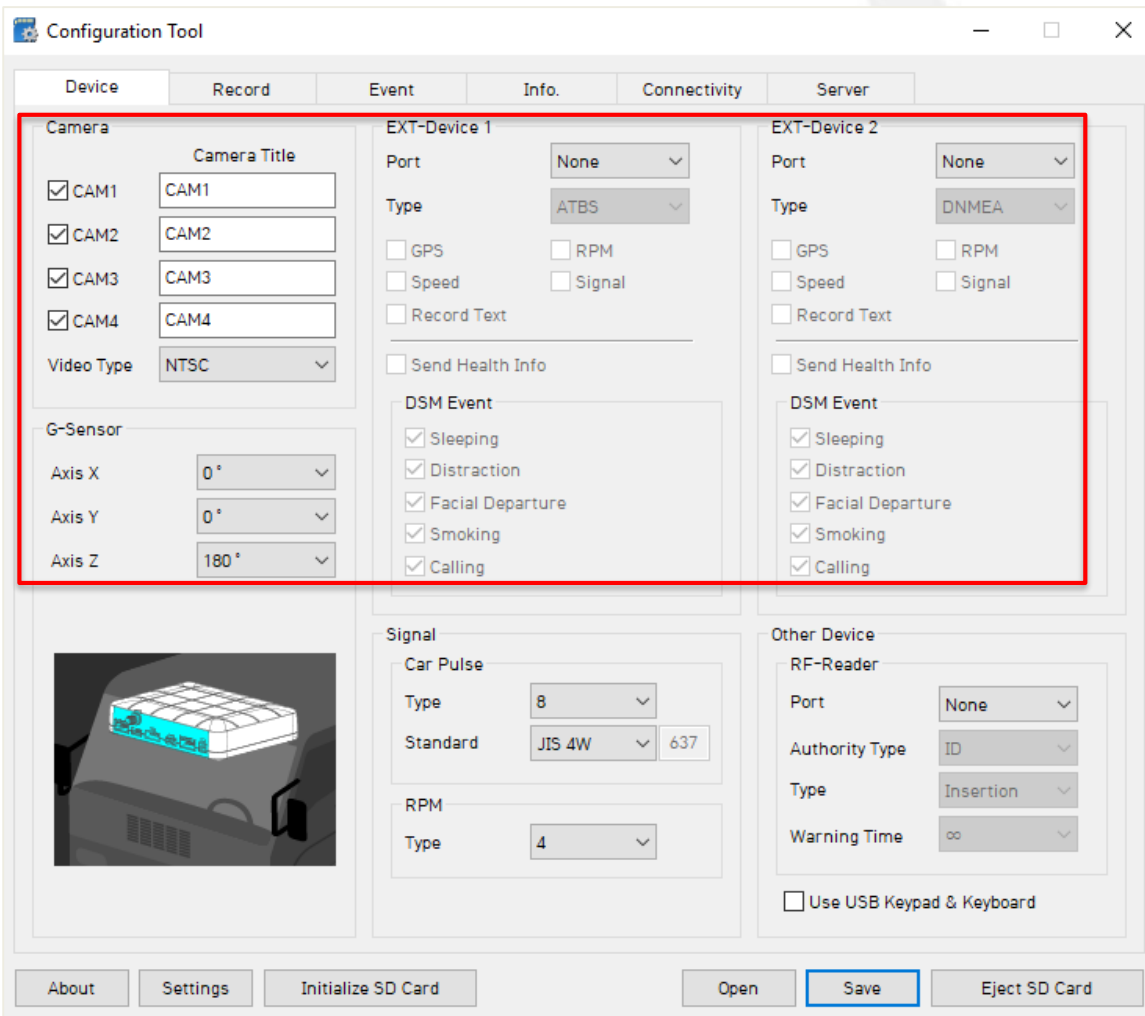
## Video Type

NTSC is the default for the Americas and APAC.  
PAL is the default for EMEA.

## G-Sensor Axis

Set the CP4S's installed position. This is Important for proper G-Sensor calibration and accurate drive data reporting. [Click here](#) for a graphic on all orientations and their corresponding X,Y,Z values

**External Devices** : Optional accessory add-ons which used to enable the serial ports in order to connect an external device. You can select the serial accessory from the dropdown list and any correlating checkbox options.



# Device Tab Cont.

## Signal & RPM(Optional)

These are optional input wires on the CP4S I/O harness which can connect to tachometer to receive the vehicle RPM and/or speed.

- Pulse Signal** Pull up, Pull Down  
**Car Pulse** Type: 1 ~ 25  
Standard : JIS 4W/JIS 2W, 3W/SA  
E/DIN/BNA/MANUAL  
**RPM** Type: 1 ~ 10

## Other Device:

- RF-ID Card: You can connect to a serial port or a USB port.
- Authority Type:
  - ID: a normal RF ID card.
  - JP License: Japanese driver license ID.
- Type:
  - Insertion: Insert type reader.
  - Touch: Touch type reader.
- Warning Time: how long the audible warning will chime after ignition on until the RF card/fob is detected.
- USB Key pad & Keyboard: You can connect a USB external keypad to navigate the OSD when using an LCD monitor with CP4S

Configuration Tool

Device | Record | Event | Info. | Connectivity | Server

**Camera**

Camera Title

☒ CAM1 CAM1

☒ CAM2 CAM2

☒ CAM3 CAM3

☒ CAM4 CAM4

Video Type NTSC

**G-Sensor**

Axis X 0°

Axis Y 0°

Axis Z 180°

**EXT-Device 1**

Port None

Type ATBS

☐ GPS ☐ RPM

☐ Speed ☐ Signal

☐ Record Text

☐ Send Health Info

**DSM Event**

☒ Sleeping

☒ Distraction

☒ Facial Departure

☒ Smoking

☒ Calling

**EXT-Device 2**

Port None

Type DNMEA

☐ GPS ☐ RPM

☐ Speed ☐ Signal

☐ Record Text

☐ Send Health Info

**DSM Event**

☒ Sleeping

☒ Distraction

☒ Facial Departure

☒ Smoking

☒ Calling

**Signal**

**Car Pulse**

Type 8

Standard JIS 4W 637

**RPM**

Type 4

**Other Device**

**RF-Reader**

Port None

Authority Type ID

Type Insertion

Warning Time ∞

☐ Use USB Keypad & Keyboard

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

# Record Tab

**Resolution:** chose from D1, HD (720p) or FHD (1080p)

**Frame Rate:** Choose from 30, 15, 10, 5, 4, 3, 2, or 1

**Quality:** Standard, High, or Super. (The lower the quality, the more compressed/lossy the video output).

Please refer to [SD storage calculator](#) to determine storage times based on the chosen settings here

## Record Modes

**Event:** Only events are recorded, event video duration determined by the pre & post event setting

**Continuous:** Records video continuously, no events (events can still be sent to Smart API server if configured on the Server tab)

**Dual Mode:** Records continuous at 1FPS + events at the specified FPS

\*If Dual Mode is set, you can adjust the SD card partition for event and continuous video here

**Parking Mode** reduces the FPS to 1 when the vehicle is idle for 5 minutes (Continuous Mode option only)

**Audio** recording can be turned on or off

**Telematics Data** (DRV file) is recorded and stored separately from video and events. Set the local storage duration here.

## Automatically Remove Data

You can set the device to automatically delete the SD card Telematics Data and/or the Video Data. Check the box to enable the auto delete function and the data retention time.

Configuration Tool

Device | **Record** | Event | Info. | Connectivity | Server

Channel

|     | Resolution | NTSC FPS | Quality |
|-----|------------|----------|---------|
| CH1 | 1080p      | 5        | Normal  |
| CH2 | 720p       | 5        | Normal  |
| CH3 | 720p       | 5        | Normal  |
| CH4 | 720p       | 5        | Normal  |

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

☒ Enable

Duration: About 40 Hours

Encryption No. 1000 ~ 9999

Overwrite

☒ Enable

☐ Automatically remove data 0 Days 2 Hours

Exception event file

|                                         |                                       |                                  |
|-----------------------------------------|---------------------------------------|----------------------------------|
| <input type="checkbox"/> Turn           | <input type="checkbox"/> Panic Button | <input type="checkbox"/> Alarm 1 |
| <input type="checkbox"/> Accel          | <input type="checkbox"/> Overspeed    | <input type="checkbox"/> Alarm 2 |
| <input type="checkbox"/> Brake          | <input type="checkbox"/> Geofence     | <input type="checkbox"/> Alarm 3 |
| <input type="checkbox"/> Shock          |                                       | <input type="checkbox"/> Alarm 4 |
| <input type="checkbox"/> Emergency Call |                                       |                                  |

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

**Encryption No.** 4 digit passcode to protect the SD card data from being easily viewed with the Analysis software and also to protect changing the device settings using the config tool.

# Event Tab – G-Sensor

Enabling "Mask" will turn off the video channel(s) and/or audio channel during the event time.

Events can be turned on/off per each camera channel (event mode and dual mode only).

Check this box to increase G-Sensor threshold at higher vehicle speeds.\*

\*G-Sensor Sensitivity Settings

Turn Z-Axis on: when enabled, the Z axis on the G-Sensor (up/down) will be activated.

Ecall is a severe impact G-Sensor which can be configured to send emergency notifications separately from lower level shock events.

When checked, only Ecall and Shock events will trigger (accel, brake, and turn events will be ignored).

The screenshot shows the 'Configuration Tool' window with the 'Event' tab selected. The 'G-Sensor' sub-tab is active. Red arrows point from the text blocks to the following settings:

- Arrow 1: Points to the 'Mask CH' checkbox.
- Arrow 2: Points to the 'Record CH' checkboxes.
- Arrow 3: Points to the 'Auto adjust G-Sensor to vehicle speed' checkbox.
- Arrow 4: Points to the 'Custom' radio button in the 'Smart G-Sensor Sensitivity' section.
- Arrow 5: Points to the 'Emergency Call Trigger' section.
- Arrow 6: Points to the 'Trigger high impact events only' checkbox.

**G-Sensor Settings:**

- Use: ☒
- Record CH: ☒ ☒ ☒ ☒
- Beep: ☐
- Mask CH: ☐ ☐ ☐ ☐
- Mask Audio: ☐
- Alarm Out: None
- Liveout Channel: None
- Liveout Duration: 5 Sec
- Auto adjust G-Sensor to vehicle speed: ☒

**Smart G-Sensor Sensitivity:**

- Pre-set: ☐ Simple Setting Mode
- Sensitivity: 5
- Shock: 5
- Accel/Brake: 5
- Turning: 5
- Emergency Call Trigger: X: 3900, Y: 3900, Z: 3900

**Custom Sensitivity Settings (highlighted in red):**

- Turn Z Axis on: ☒
- High Impact: X: 950, Y: 950, Z: 2000; Hz: 3, 3, 10
- Harsh Accel/Brake: X: 450; Hz: 10
- Harsh Turn: Y: 350; Hz: 15
- Trigger high impact events only: ☐

*\*See pg 15 for more details on G-Sensor thresholds.*

# Event Tab - MISC

The Event tab will allow you to specify which events will trigger a recording (Event record mode or Dual record mode only).

Check the boxes next to each event you want triggered.

You can also set speed thresholds here if you'd like to record over speed events. (This is raw vehicle speed and does not account for road/posted speed limits).

Check "Beep" if you'd like an audible chime to alert the driver when the event occurs.

If using the optional alarm input triggers (Alarm1: white, Alarm2: Purple, Alarm3: Green, Alarm4: Orange) then you need to check the box(s) here and label them according to the input type (i.e. horn, lights, door open, etc.)

Also the input type should be selected (NC/NO, or 12V ON/OFF).

NOTE: Alarm4 may not be supported by older versions of CP4S hardware. CP4S devices shipping from August 2018 and forward will support this 4<sup>th</sup> alarm input.

Alarm Out, if selected, will send a 5V output from the Yellow wire to a 3<sup>rd</sup> party device for the duration selected in the dropdown.

Liveout Channel: Which camera channel will be displayed on LCD when trigger is activated.

Liveout Duration: How long the camera view will stay displayed after trigger is off.

The screenshot shows the 'Configuration Tool' window with the 'Event' tab selected. The 'Misc.' sub-tab is active, showing settings for 'Panic Button', 'Overspeed', 'Alarm In', and 'EXT-Signal'. Red boxes highlight the 'Panic Button', 'Overspeed', and 'Alarm In' sections. Red arrows point from the text instructions to the 'Use' checkboxes in the 'Panic Button' and 'Alarm In' sections.

| Event Configuration - Misc. |                                     |                                                                                                                                                 |                                     |                                                                                                     |                          |           |                 |                  |  |  |
|-----------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------|-----------|-----------------|------------------|--|--|
| Panic Button                |                                     | Record CH                                                                                                                                       | Beep                                | Mask CH                                                                                             | Mask Audio               | Alarm Out | Liveout Channel | Liveout Duration |  |  |
| Use                         | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |  |  |

| Overspeed |                          | Speed Limit   | Record CH                                                                                                                                       | Beep                     | Mask CH                                                                                             | Mask Audio               | Alarm Out | Liveout Channel | Liveout Duration |  |  |
|-----------|--------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------|--------------------------|-----------|-----------------|------------------|--|--|
| Use       | <input type="checkbox"/> | 125 km/h Over | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |  |  |

| Alarm In                            |        |       |                                                                                                                                                 |                          |                                                                                                     |                          |           |                 |                  |  |  |
|-------------------------------------|--------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------|--------------------------|-----------|-----------------|------------------|--|--|
| Use                                 | Title  | Type  | Record CH                                                                                                                                       | Beep                     | Mask CH                                                                                             | Mask Audio               | Alarm Out | Liveout Channel | Liveout Duration |  |  |
| <input checked="" type="checkbox"/> | ALARM1 | V-Off | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |  |  |
| <input checked="" type="checkbox"/> | ALARM2 | V-Off | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |  |  |
| <input checked="" type="checkbox"/> | ALARM3 | V-Off | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |  |  |
| <input checked="" type="checkbox"/> | ALARM4 | N-O   | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |  |  |

| EXT-Signal               |         |                                                                                                     |                          |                                                                                                     |                          |           |                 |                  |  |  |
|--------------------------|---------|-----------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------|--------------------------|-----------|-----------------|------------------|--|--|
| Use                      | Title   | Record CH                                                                                           | Beep                     | Mask CH                                                                                             | Mask Audio               | Alarm Out | Liveout Channel | Liveout Duration |  |  |
| <input type="checkbox"/> | LEFT    | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |  |  |
| <input type="checkbox"/> | RIGHT   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |  |  |
| <input type="checkbox"/> | BRAKE   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |  |  |
| <input type="checkbox"/> | REVERSE | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |  |  |

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



# Event Tab – MISC Cont.

## EXT-Signal

- **Use:** Enable the boxes for the alarms that will be used. If using DDC-200S device, the fatigue/distraction events are detected by enabling all four signal events.
- **Title:** Provide a name/title up to 10 digits (Optional).
- **Record Channel:** Enable the camera(s) to record when the alarm is being triggered.
  - The record channel boxes are CH 1~4 from left to right.
  - Only channels that are enabled on the **Device** tab can be selected.

Check "Beep" if you'd like an audible chime to alert the driver when the event occurs.

- **Liveout Channel:** Which camera channel will be displayed on LCD when trigger is activated.
- **Liveout Duration:** How long the camera view will stay displayed after trigger is off.

The screenshot shows the 'Configuration Tool' window with the 'Event' tab selected. The 'Misc.' sub-tab is active, showing settings for 'Panic Button', 'Overspeed', 'Alarm In', and 'EXT-Signal'.

**Panic Button**

| Use                                 | Record CH                                                                                                                                       | Beep                                | Mask CH                                                                                             | Mask Audio               | Alarm Out | Liveout Channel | Liveout Duration |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------|-----------|-----------------|------------------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |

**Overspeed**

| Use                      | Speed Limit   | Record CH                                                                                                                                       | Beep                     | Mask CH                                                                                             | Mask Audio               | Alarm Out | Liveout Channel | Liveout Duration |
|--------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------|--------------------------|-----------|-----------------|------------------|
| <input type="checkbox"/> | 125 km/h Over | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |

**Alarm In**

| Use                                 | Title  | Type  | Record CH                                                                                                                                       | Beep                     | Mask CH                                                                                             | Mask Audio               | Alarm Out | Liveout Channel | Liveout Duration |
|-------------------------------------|--------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------|--------------------------|-----------|-----------------|------------------|
| <input checked="" type="checkbox"/> | ALARM1 | V-Off | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |
| <input checked="" type="checkbox"/> | ALARM2 | V-Off | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |
| <input checked="" type="checkbox"/> | ALARM3 | V-Off | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |
| <input checked="" type="checkbox"/> | ALARM4 | N-O   | <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |

**EXT-Signal**

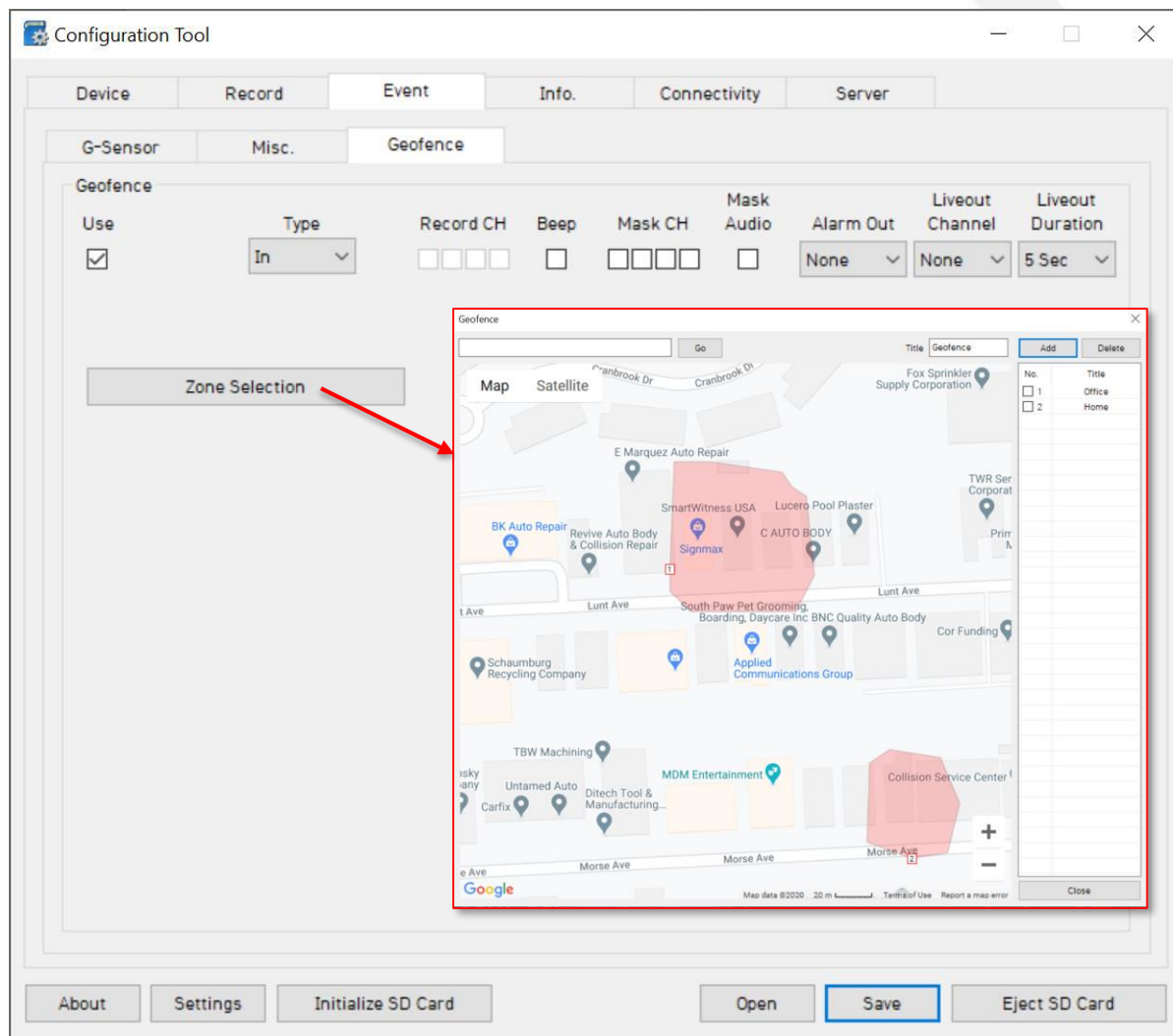
| Use                      | Title   | Record CH                                                                                           | Beep                     | Mask CH                                                                                             | Mask Audio               | Alarm Out | Liveout Channel | Liveout Duration |
|--------------------------|---------|-----------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------|--------------------------|-----------|-----------------|------------------|
| <input type="checkbox"/> | LEFT    | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |
| <input type="checkbox"/> | RIGHT   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |
| <input type="checkbox"/> | BRAKE   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |
| <input type="checkbox"/> | REVERSE | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> | None      | None            | 5 Sec            |

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



# Event Tab – Geofence

- **Geofence Type:** In or out (vehicle enters or exits geozone(s))
- **Beep:** audible alert from the camera when geofence event occurs
- **Mask Ch:** Select camera channel(s) to disable video recording during geofence events
- **Mask Audio:** disable audio recording during geofence events
- **Zone Selection:** set up to 20 geofence zones



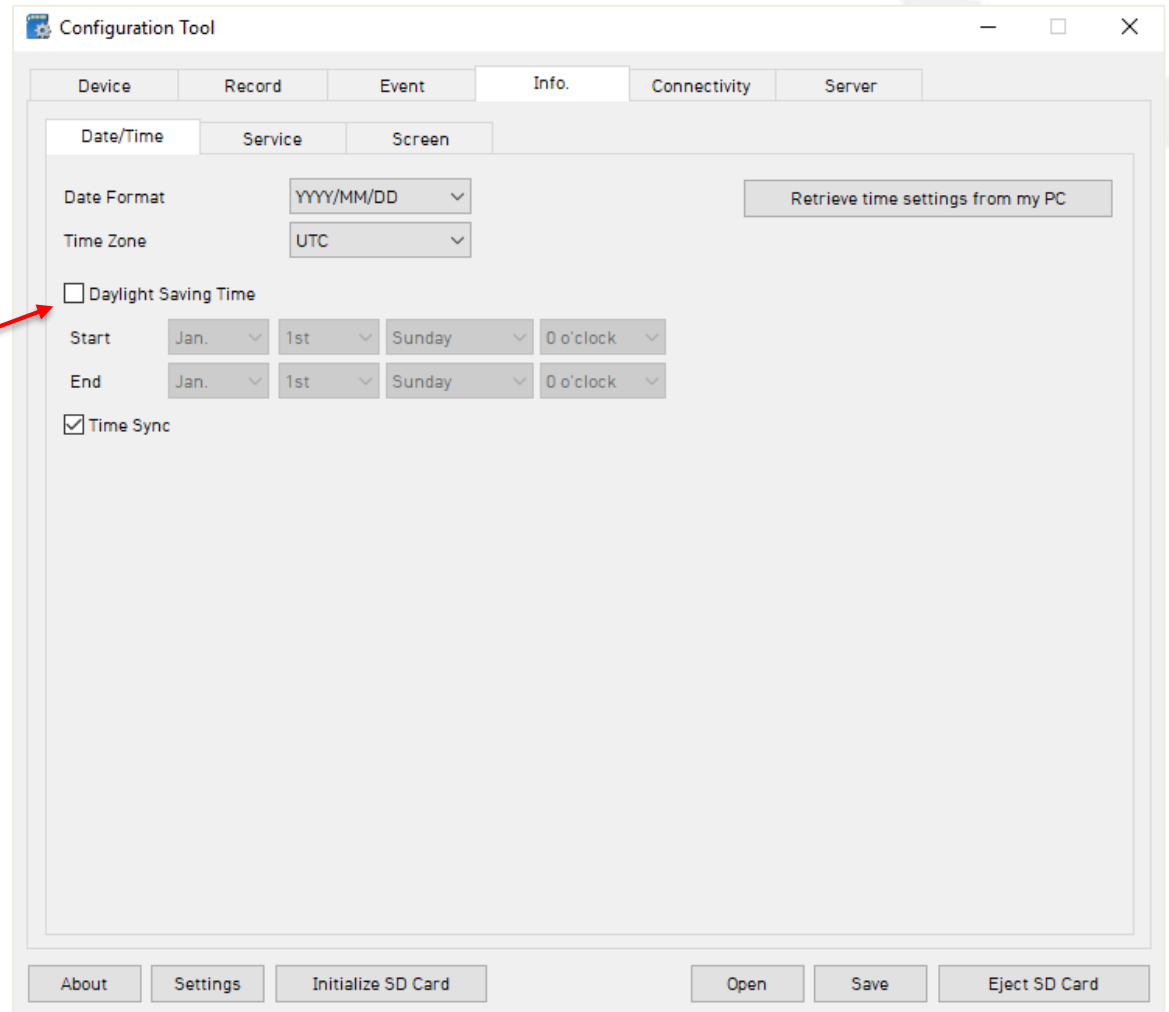
# Info Tab – Date/Time

Time setting is not necessary as the PC Viewer software and Smart API both adjust the standard UTC time to local time automatically.

## **DST (Optional)**

Check the box to enable the daylight saving time.  
Input the start & end date.

**\*DO NOT USE IF CP4S IS  
CONNECTED TO SMART API**



The screenshot shows the 'Configuration Tool' window with the 'Info' tab selected. Under the 'Date/Time' sub-tab, the 'Date Format' is set to 'YYYY/MM/DD' and the 'Time Zone' is set to 'UTC'. A red arrow points to the 'Daylight Saving Time' checkbox, which is currently unchecked. Below this, the 'Start' and 'End' dates are set to 'Jan. 1st Sunday 0 o'clock'. The 'Time Sync' checkbox is checked. A button labeled 'Retrieve time settings from my PC' is located in the top right corner of the configuration area. At the bottom of the window, there are buttons for 'About', 'Settings', 'Initialize SD Card', 'Open', 'Save', and 'Eject SD Card'.

| Device                                                                                                                                                                                                                                                                                                                                                                                                           | Record | Event | Info. | Connectivity | Server |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|-------|--------------|--------|
| <div><div>Date/Time</div><div>Service</div><div>Screen</div></div> <div><div>Date Format: YYYY/MM/DD</div><div>Time Zone: UTC</div><div><input type="checkbox"/> Daylight Saving Time</div><div><div>Start: Jan. 1st Sunday 0 o'clock</div><div>End: Jan. 1st Sunday 0 o'clock</div></div><div><input checked="" type="checkbox"/> Time Sync</div></div> <div><div>Retrieve time settings from my PC</div></div> |        |       |       |              |        |

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

# Info Tab – Service

## Service

- *Delay Power Shutdown*: Amount of time CP4S stays on after ignition is turned off.
- *Wakeup Interval*: Time interval in which CP4S will automatically power up again after shutdown.
- *Register Interval*: Time interval in which CP4S stays powered on during wakeup interval.
- *Auto Format*: Allows CP4S to automatically format a blank SD card for use.

## System Warning

Provides an alert in case system issue is detected.

- **Source:**
  - *SD Card*: is not recognized or writing is failed.
  - *Temperature*: Alerts when device temp is over 80°C
  - *Video Loss*: Video signal loss from camera(s).
  - *AUX*: Any error detected from an external serial accessory which is connected.
- **Event:**
  - *Beep*: CP4S will make an audible alert when the selected warning events occur
  - *Popup*: A message will appear on the LCD monitor
  - *Alarm LED*: RED LED on CP4S remote will turn on
  - *Alarm Out*: 5V signal will send out from the CP4S alarm out wire.

**NOTE:** if system warning event is enabled at the source section, any corresponding event message will send to Smart API server

## Ignition Off Filter

- **Filter Duration** specifies how long the device will maintain the ignition status as true when the **G-sensor Threshold** value exceeds the set mG. In the pictured settings, if the power drops from the vehicle ignition source (due to Smart Alternator or other reason) and the g-sensor values are 50 or above, then the device will maintain Ignition ON status for 5 seconds.

The screenshot shows the 'Configuration Tool' window with the 'Info' tab selected. The 'Service' sub-tab is active, displaying various system settings. The 'System' section includes dropdowns for Speed Source (GPS), Speed Unit (km/h), Beep from (Main Unit), and Wake-up Interval (Off). It also has time pickers for Delayed Power Shutdown (00:15) and Register Interval (00:00). Checkboxes for Auto Format Feature, Button Beep, and Disable Menu are all checked. The 'Ignition Off Filter' section has a checked 'Use' box, a Filter Duration of 5 seconds, and a G-Sensor Threshold of 50 mG. The 'User Management' section has checkboxes for Vehicle No and Driver ID, both of which are checked. The 'System Warning' section has a checked 'Use' box and two columns of source checkboxes: SD Card, Video Loss, Temperature, and AUX. The 'Event' section has checkboxes for Alarm out, Popup, Beep, and Alarm LED, with Beep and Alarm LED checked. A dropdown for event duration is set to 5 Sec. At the bottom, there are buttons for About, Settings, Initialize SD Card, Open, Save, and Eject SD Card.

| Device                                                  | Record | Event                                           | Info. | Connectivity | Server |
|---------------------------------------------------------|--------|-------------------------------------------------|-------|--------------|--------|
| <b>Date/Time</b> <b>Service</b> <b>Screen</b>           |        |                                                 |       |              |        |
| <b>System</b>                                           |        |                                                 |       |              |        |
| Speed Source                                            |        | GPS                                             |       |              |        |
| Speed Unit                                              |        | km/h                                            |       |              |        |
| Beep from                                               |        | Main Unit                                       |       |              |        |
| Delayed Power Shutdown                                  |        | 00 : 15                                         |       |              |        |
| Wake-up Interval                                        |        | Off                                             |       |              |        |
| Register Interval                                       |        | 00 : 00                                         |       |              |        |
| <input checked="" type="checkbox"/> Auto Format Feature |        |                                                 |       |              |        |
| <input checked="" type="checkbox"/> Button Beep         |        |                                                 |       |              |        |
| <input checked="" type="checkbox"/> Disable Menu        |        |                                                 |       |              |        |
| <b>Ignition Off Filter</b>                              |        |                                                 |       |              |        |
| <input checked="" type="checkbox"/> Use                 |        |                                                 |       |              |        |
| Filter Duration (1 ~ 12000)                             |        | 5 Sec                                           |       |              |        |
| G-Sensor Threshold (10 ~ 8000)                          |        | 50 mG                                           |       |              |        |
| <b>User Management</b>                                  |        |                                                 |       |              |        |
| <input checked="" type="checkbox"/> Vehicle No          |        |                                                 |       |              |        |
| Driver ID                                               |        |                                                 |       |              |        |
| <b>System Warning</b>                                   |        |                                                 |       |              |        |
| <input checked="" type="checkbox"/> Use                 |        |                                                 |       |              |        |
| Source                                                  |        |                                                 |       |              |        |
| <input checked="" type="checkbox"/> SD Card             |        | <input checked="" type="checkbox"/> Temperature |       |              |        |
| <input checked="" type="checkbox"/> Video Loss          |        | <input type="checkbox"/> AUX                    |       |              |        |
| <b>Event</b>                                            |        |                                                 |       |              |        |
| <input type="checkbox"/> Alarm out                      |        | <input checked="" type="checkbox"/> Beep        |       |              |        |
| <input type="checkbox"/> Popup                          |        | <input checked="" type="checkbox"/> Alarm LED   |       |              |        |
| 5 Sec                                                   |        |                                                 |       |              |        |

# Info Tab – Service Cont.

## System Warning

- Events:
  - Alarm Out: sends 5V output via the yellow wire on the cable harness.
  - Beep: Audible chime to alert the driver when failure occurs.
  - Alarm LED: CP4S “Red” LED will turn on.
  - Popup: A notification message will be displayed on LCD monitor based on selected duration.

Vehicle No & Driver ID can be added here. These values can be able to be overlaid on the MP4 converted video using the desktop analysis software (PC or MAC). These values can also be updated remotely using Smart API workstation or by API request.

The screenshot shows the 'Configuration Tool' window with the 'Info' tab selected. The 'Service' sub-tab is active, displaying various system settings. The 'System Warning' section is highlighted with a red box, showing the 'Event' settings. The 'User Management' section at the bottom shows fields for 'Vehicle No' and 'Driver ID'.

**Configuration Tool**

Device | Record | Event | **Info.** | Connectivity | Server

Date/Time | **Service** | Screen

**System**

Speed Source: GPS  
Speed Unit: km/h  
Beep from: Main Unit  
Delayed Power Shutdown: 00 : 15  
Wake-up Interval: Off  
Register Interval: 00 : 00

☒ Auto Format Feature  
☒ Button Beep  
☒ Disable Menu

**Ignition Off Filter**

☒ Use  
Filter Duration (1 ~ 12000): 5 Sec  
G-Sensor Threshold (10 ~ 8000): 50 mG

**User Management**

☒ Vehicle No:   
Driver ID:

**System Warning**

☒ Use

**Source**

☒ SD Card  
☒ Video Loss  
☒ Temperature  
☐ AUX

**Event**

☐ Alarm out  
☐ Popup  
☒ Beep  
☒ Alarm LED  
5 Sec

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

# Info Tab – Screen

## Liveout Priority

- Display on CP4S can be prioritized from “1” highest priority ~ “9” lowest priority.
  - Example: If CH 2 & CH3 both triggered an event the same time, CH2 has the priority to display on the monitor.

## Sequence Channel

- Selected channels will be displayed in sequential order based on dwell time (Default Channel must be set to SEQ).
  - Dwell Time: Set display time per selected channel (Off/1~5 seconds).

## Display Order

- The order of cameras as they are displayed on the LCD monitor.

|   |   |
|---|---|
| 1 | 2 |
| 3 | 4 |

## ETC.

- TV Out: Provide signal to the monitor. Event Only option turns off the V/O signal completely unless it's configured on the event tab.
- TV Out OSD: Determine which information to be displayed on LCD monitor.
  - 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 output from CP4S unit.

The screenshot shows the 'Configuration Tool' window with the 'Info' tab selected. The 'Screen' sub-tab is active, displaying the following settings:

- Liveout Priority:** A table with 4 columns: Channel, Priority, Format, and SEQ. The values are: CH 1 (1), 1x2-1 (5), CH 2 (2), 1x2-2 (6), CH 3 (3), 2x2 (7), CH 4 (4), 1x2x1 (8), and SEQ. (9).
- Sequence Channel:** A section with a 'Dwell Time' dropdown set to 'Off' and checkboxes for CH1, CH2, CH3, and CH4.
- Display Order:** A section with an 'Auto' button and a list of 4 channels (CH1, CH2, CH3, CH4) with dropdown arrows.
- Etc.:** A section with 'TV Out' set to '2x2', an 'Event Only' checkbox, and 'TV Out OSD' set to 'Level 1(Full)'.

At the bottom of the window, there are buttons for 'About', 'Settings', 'Initialize SD Card', 'Open', 'Save', and 'Eject SD Card'.

# Connectivity Tab

When using CP4S as a connected device, "Enable" the connectivity here

## Mobile Network:

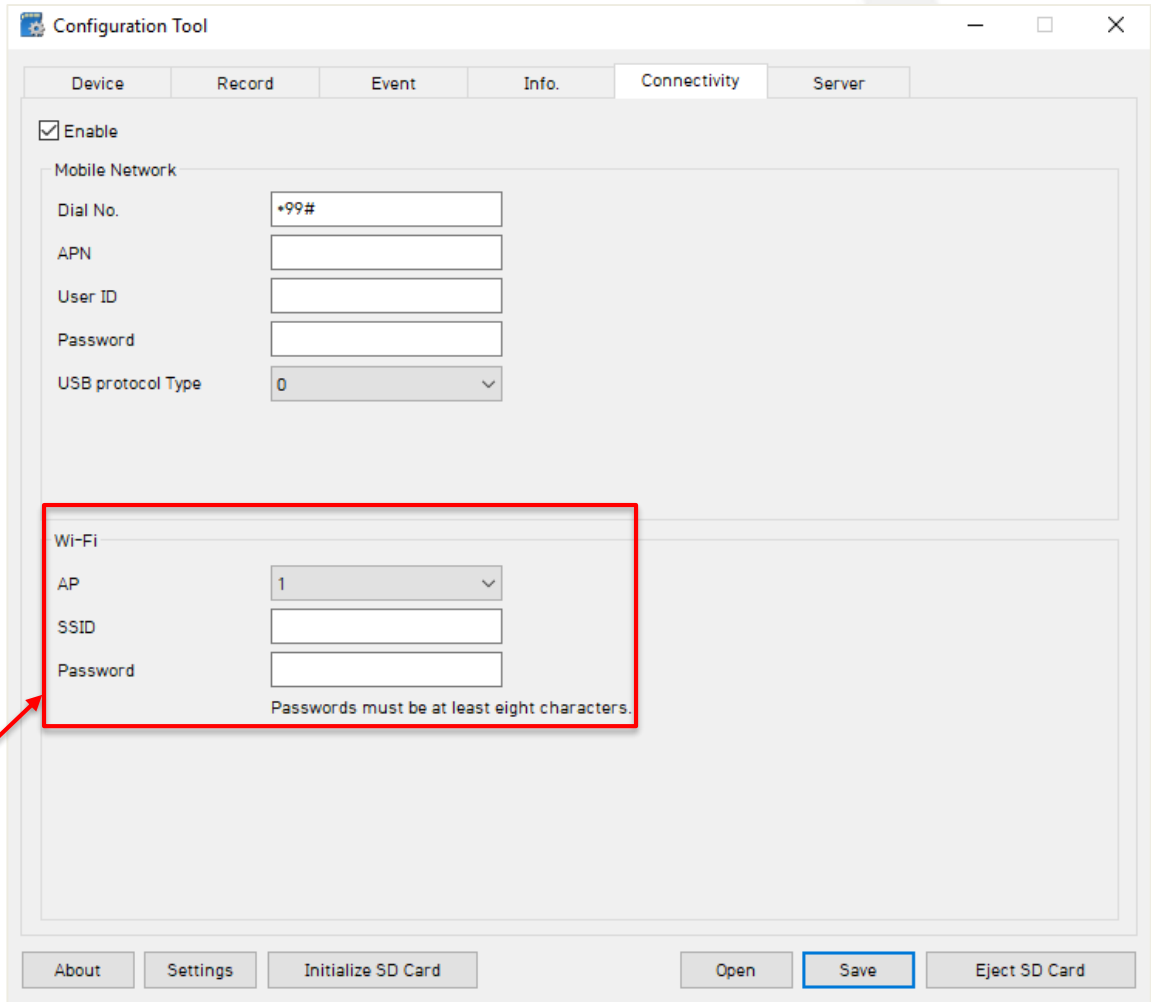
**\*99#** can be used for all networks except for Verizon and Sprint (which use **\*99\*\*\*3#**)

APN is usually not required. CP4S will automatically receive the APN information via the cellular module.

If Sim requires a username and password, the APN, User ID, and Password must be entered (CHAP/PAP authentication is automatically assigned).

**CP4S-W model only:** You can enable WiFi connectivity. The AP must be secure with WPA/WPA2 encryption and have a password of at least 8 characters (cannot be an open network).

You can set up to 10 WiFi SSIDs. CP4S-W will scan for as many networks as are added here in its settings.



The screenshot shows the 'Configuration Tool' window with the 'Connectivity' tab selected. The 'Enable' checkbox is checked. The 'Mobile Network' section contains fields for 'Dial No.' (set to \*99#), 'APN', 'User ID', 'Password', and 'USB protocol Type' (set to 0). The 'Wi-Fi' section is highlighted with a red box and contains fields for 'AP' (set to 1), 'SSID', and 'Password'. A note at the bottom of the Wi-Fi section states 'Passwords must be at least eight characters.' The bottom of the window has buttons for 'About', 'Settings', 'Initialize SD Card', 'Open', 'Save', and 'Eject SD Card'.

| Device                                       | Record                            | Event | Info. | Connectivity | Server |
|----------------------------------------------|-----------------------------------|-------|-------|--------------|--------|
| <input checked="" type="checkbox"/> Enable   |                                   |       |       |              |        |
| Mobile Network                               |                                   |       |       |              |        |
| Dial No.                                     | <input type="text" value="*99#"/> |       |       |              |        |
| APN                                          | <input type="text"/>              |       |       |              |        |
| User ID                                      | <input type="text"/>              |       |       |              |        |
| Password                                     | <input type="text"/>              |       |       |              |        |
| USB protocol Type                            | <input type="text" value="0"/>    |       |       |              |        |
| Wi-Fi                                        |                                   |       |       |              |        |
| AP                                           | <input type="text" value="1"/>    |       |       |              |        |
| SSID                                         | <input type="text"/>              |       |       |              |        |
| Password                                     | <input type="text"/>              |       |       |              |        |
| Passwords must be at least eight characters. |                                   |       |       |              |        |

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



# Server Tab

SmartWitness or your service provider will provide you the URL and (if necessary) the License Key to enter here.

**Transmit Live Tracking Data:** Check to enable http posts from the CP4S to server. Livetrack2 contains GPS coordinates. LiveTrack3 does not.

**Transmit Event Data:** Check to enable CP4S posting event notification and images to the server.

**Transmit Telematics Data:** Check to enable CP4S to send DRV data (static/compressed file containing drive data from every second the vehicle is in operation.

**Transmit Emergency Call:** Check to transmit ecall/Severe Shock events.

*NOTE: The frequency interval of LiveTrack and DRV uploads are controlled by the server.*

Select the events here which the CP4S will transmit to the server in real-time. These events will transmit instantly even if CP4S is set as "Continuous" record mode.

Click 'Save' and select the "FHDRM" SD drive when prompted. This will save your configuration to the card. Wait for the software to confirm the settings have been applied to the SD Card.

You can now eject the SD from your PC and insert into CP4S and power on.

The screenshot shows the 'Configuration Tool' window with the 'Server' tab selected. Red arrows and boxes highlight specific areas:

- A red arrow points to the 'Domain/Static IP and Port #' field, which contains 'http://sv.smartwitness.co:5000/api'.
- A red box encloses the 'Transmit' section, which includes:
  - Tracking Data:** ☒ Transmit Live Tracking Data, Live Tracking Data Type: LiveTrack2.
  - Event Data:** ☒ Transmit Event Data, ☐ Include G-Sensor/Gyro Data.
  - Telematics Data (DRV):** ☒ Transmit Telematics Data (DRV), G-Sensor/Gyro Data: None, Data Type: Default.
  - Emergency Call:** ☒ Transmit Emergency Call Notification.
- A red box encloses the 'Event Images' section, which includes:
  - Event Images:** ☒ CAM1, ☒ CAM2, ☒ CAM3, ☒ CAM4.
  - Pre-Event:** 5 Sec, **Post-Event:** 5 Sec, **Event/Snapshot Quality:** Normal.
- A red box encloses the 'Event Triggered by' section, which includes:
  - ☒ G-Sensor, ☒ Emergency Call, ☒ Panic Button, ☐ Overspeed, ☒ Ignition.
  - ☒ Transmit Image, ☒ Transmit Image, ☒ Transmit Image, ☒ Transmit Image, ☐ Transmit Image.
  - ☒ Alarm1, ☒ Alarm2, ☒ Alarm3, ☒ Alarm4, ☐ Geofence.
  - ☒ Transmit Image, ☒ Transmit Image, ☒ Transmit Image, ☒ Transmit Image, ☐ Transmit Image.
  - ☐ Signal1, ☐ Signal2, ☐ Signal3, ☐ Signal4, ☐ Transmit Image.
- A red box highlights the 'Save' button at the bottom right.

# CP4S G-Sensor Threshold Table

## Low Speed Table

| Level                 | axis | ACCSENX |    | ACCSENY                       |    |                               |     | ACCSENZ    |    |
|-----------------------|------|---------|----|-------------------------------|----|-------------------------------|-----|------------|----|
|                       |      | Impact  |    | Sudden start/<br>sudden stop1 |    | Sudden start/<br>sudden stop2 |     | Quick Turn |    |
|                       |      | G(mg)   | Hz | G(mg)                         | Hz | G(mg)                         | Hz  | G(mg)      | Hz |
| 1<br>(less sensitive) | X    | 950     | 1  | 450                           | 8  | 500                           | 5~7 | -          | -  |
|                       | Y    | 950     | 1  | -                             | -  | -                             | -   | 350        | 15 |
|                       | Z    | 1050    | 1  | -                             | -  | -                             | -   | -          | -  |
| 2                     | X    | 900     | 1  | 420                           | 8  | 470                           | 5~7 | -          | -  |
|                       | Y    | 900     | 1  | -                             | -  | -                             | -   | 340        | 15 |
|                       | Z    | 1000    | 1  | -                             | -  | -                             | -   | -          | -  |
| 3                     | X    | 850     | 1  | 390                           | 8  | 440                           | 5~7 | -          | -  |
|                       | Y    | 850     | 1  | -                             | -  | -                             | -   | 320        | 15 |
|                       | Z    | 950     | 1  | -                             | -  | -                             | -   | -          | -  |
| 4                     | X    | 800     | 1  | 360                           | 8  | 410                           | 5~7 | -          | -  |
|                       | Y    | 800     | 1  | -                             | -  | -                             | -   | 310        | 15 |
|                       | Z    | 900     | 1  | -                             | -  | -                             | -   | -          | -  |
| 5                     | X    | 750     | 1  | 330                           | 8  | 380                           | 5~7 | -          | -  |
|                       | Y    | 750     | 1  | -                             | -  | -                             | -   | 300        | 20 |
|                       | Z    | 850     | 1  | -                             | -  | -                             | -   | -          | -  |
| 6                     | X    | 700     | 1  | 310                           | 8  | 360                           | 5~7 | -          | -  |
|                       | Y    | 700     | 1  | -                             | -  | -                             | -   | 280        | 20 |
|                       | Z    | 800     | 1  | -                             | -  | -                             | -   | -          | -  |
| 7                     | X    | 650     | 1  | 240                           | 10 | -                             | -   | -          | -  |
|                       | Y    | 650     | 1  | -                             | -  | -                             | -   | 230        | 20 |
|                       | Z    | 750     | 1  | -                             | -  | -                             | -   | -          | -  |
| 8                     | X    | 600     | 1  | 190                           | 10 | -                             | -   | -          | -  |
|                       | Y    | 600     | 1  | -                             | -  | -                             | -   | 190        | 15 |
|                       | Z    | 700     | 1  | -                             | -  | -                             | -   | -          | -  |
| 9                     | X    | 550     | 1  | 170                           | 10 | -                             | -   | -          | -  |
|                       | Y    | 550     | 1  | -                             | -  | -                             | -   | 170        | 15 |
|                       | Z    | 650     | 1  | -                             | -  | -                             | -   | -          | -  |

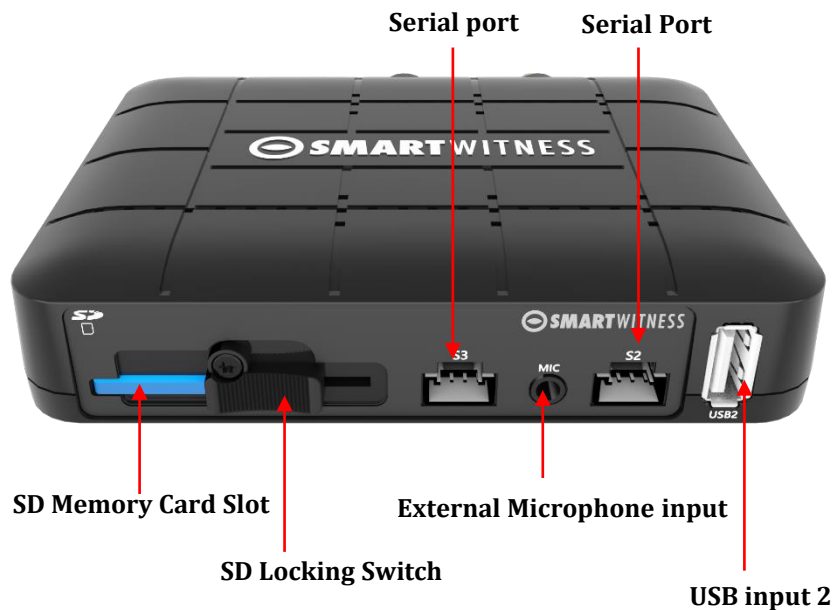
## High Speed Table

| Level                 | axis | ACCSENX |    | ACCSENY                       |    |                               |    | ACCSENZ    |    |
|-----------------------|------|---------|----|-------------------------------|----|-------------------------------|----|------------|----|
|                       |      | impact  |    | Sudden start/<br>sudden stop1 |    | Sudden start/<br>sudden stop2 |    | Quick Turn |    |
|                       |      | G(mg)   | Hz | G(mg)                         | Hz | G(mg)                         | Hz | G(mg)      | Hz |
| 1<br>(less sensitive) | X    | 1350    | 1  | 480                           | 10 | -                             | -  | -          | -  |
|                       | Y    | 1350    | 1  | -                             | -  | -                             | -  | 420        | 15 |
|                       | Z    | 1450    | 1  | -                             | -  | -                             | -  | -          | -  |
| 2                     | X    | 1300    | 1  | 450                           | 10 | -                             | -  | -          | -  |
|                       | Y    | 1300    | 1  | -                             | -  | -                             | -  | 410        | 15 |
|                       | Z    | 1400    | 1  | -                             | -  | -                             | -  | -          | -  |
| 3                     | X    | 1250    | 1  | 420                           | 10 | -                             | -  | -          | -  |
|                       | Y    | 1250    | 1  | -                             | -  | -                             | -  | 380        | 15 |
|                       | Z    | 1350    | 1  | -                             | -  | -                             | -  | -          | -  |
| 4                     | X    | 1200    | 1  | 390                           | 10 | -                             | -  | -          | -  |
|                       | Y    | 1200    | 1  | -                             | -  | -                             | -  | 370        | 15 |
|                       | Z    | 1300    | 1  | -                             | -  | -                             | -  | -          | -  |
| 5                     | X    | 1150    | 1  | 360                           | 10 | -                             | -  | -          | -  |
|                       | Y    | 1150    | 1  | -                             | -  | -                             | -  | 340        | 20 |
|                       | Z    | 1250    | 1  | -                             | -  | -                             | -  | -          | -  |
| 6                     | X    | 1100    | 1  | 340                           | 10 | -                             | -  | -          | -  |
|                       | Y    | 1100    | 1  | -                             | -  | -                             | -  | 320        | 20 |
|                       | Z    | 1200    | 1  | -                             | -  | -                             | -  | -          | -  |
| 7                     | X    | 1050    | 1  | 270                           | 10 | -                             | -  | -          | -  |
|                       | Y    | 1050    | 1  | -                             | -  | -                             | -  | 270        | 20 |
|                       | Z    | 1150    | 1  | -                             | -  | -                             | -  | -          | -  |
| 8                     | X    | 1000    | 1  | 190                           | 10 | -                             | -  | -          | -  |
|                       | Y    | 1000    | 1  | -                             | -  | -                             | -  | 220        | 15 |
|                       | Z    | 1100    | 1  | -                             | -  | -                             | -  | -          | -  |
| 9                     | X    | 950     | 1  | 170                           | 10 | -                             | -  | -          | -  |
|                       | Y    | 950     | 1  | -                             | -  | -                             | -  | 200        | 15 |
|                       | Z    | 1050    | 1  | -                             | -  | -                             | -  | -          | -  |

**Speed Mode:** When auto adjust G-Sensor to vehicle speed is checked, G-Sensor threshold will increase to levels specified in the right table when the vehicle reaches 20 KMh. The threshold will go back to settings in the left table when vehicle goes below 10 KMh.

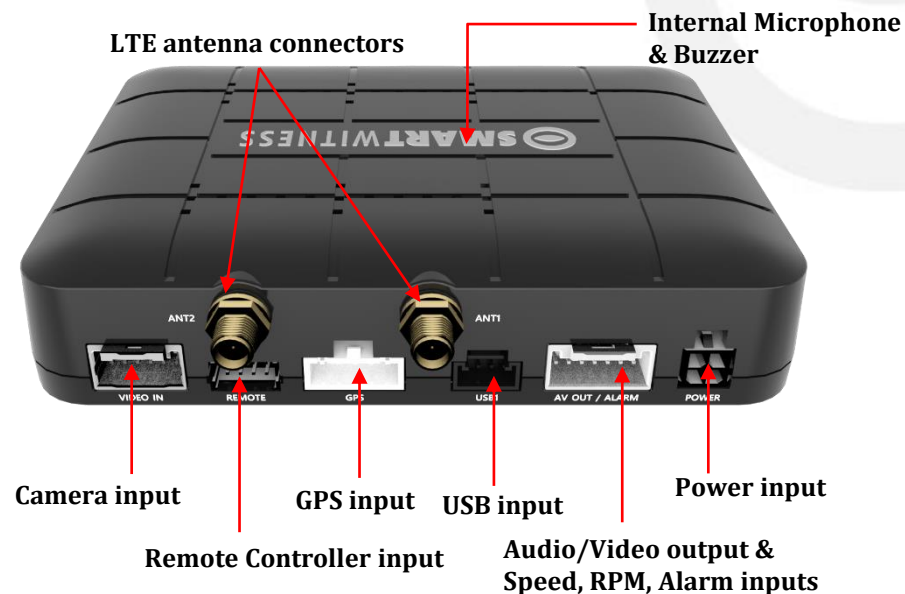
☒ Auto adjust G-Sensor to Vehicle speed

# CP4S Hardware



Black - Ground: BAT(-)  
Red - Power: BAT(+)  
White - Ignition (IGN+)

Required



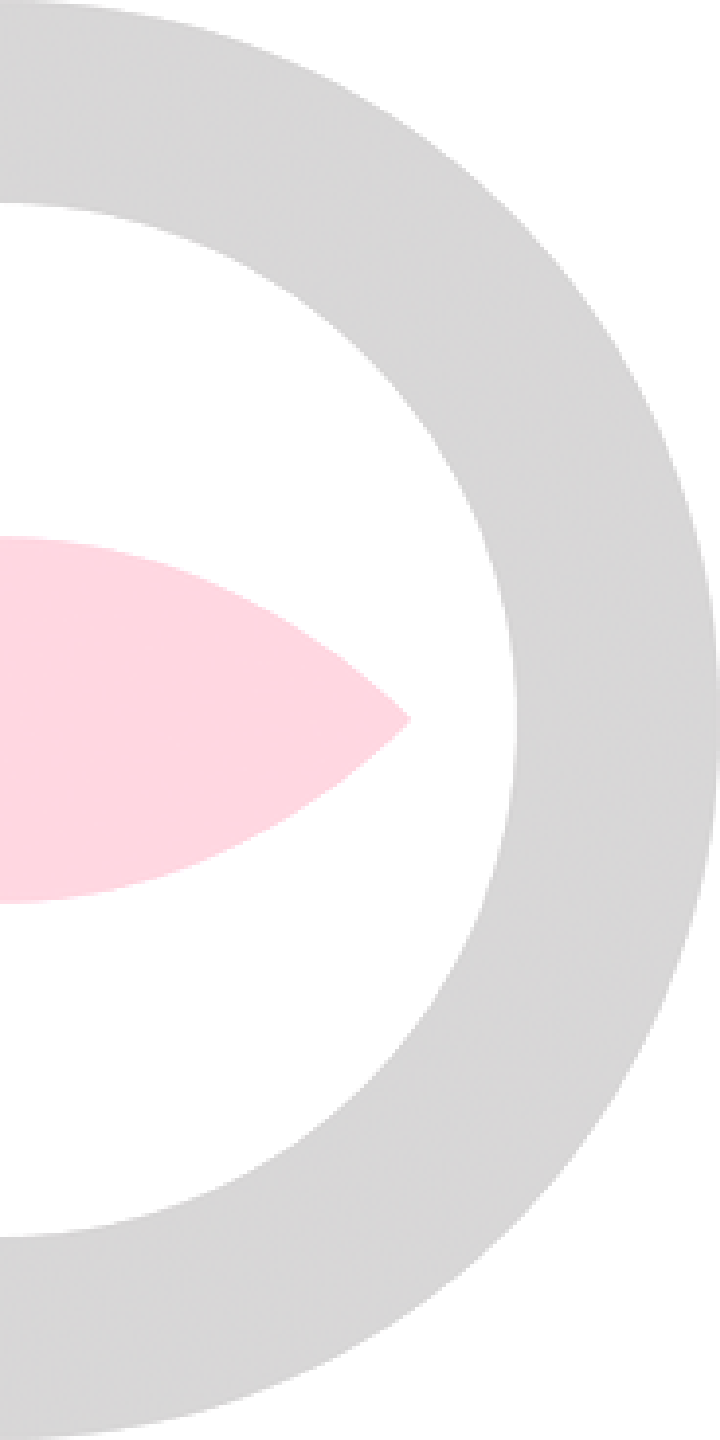
White : Alarm In1, Voltage on/off (3~70V)  
Purple : Alarm In2, Voltage on/off (3~70V)  
Green : Alarm In3, Voltage on/off (3~70V)  
Orange : Alarm In4, NC/NO (open/close)  
Blue : Speed (TACHO)  
Gray : RPM (TACHO)  
Brown : Alarm Out, Low(0V) to High (5V)  
Black : Ground for Alarm In4 (NC/NO circuit)

Optional



[CP4S Installation guide can be downloaded here](#)

\*SD cards can also be removed from the CP4S to review video and data. For this, the SmartWitness PC viewer software is required which you can [download here](#) or visit [Support.smartwitness.com](http://Support.smartwitness.com)



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