SmartWitness CP4

Device Configuration Guide

SMARTWITNESS

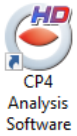
This is Video Telematics.

CP4 Setup and Configuration

1. Download the CP4 configuration tool
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

*SD cards can also be removed from the CP4 to review video and data. For this, the SmartWitness PC viewer software is required which you can download here or visit Support.smartwitness.com



Device Tab

Camera
Enable the desired camera channels.

EXT-Devices
Used to enable S3 port in order to connect an external device (such as RFID reader).

G-Sensor Axis
Set the CP4's installed position. This is Important for proper G-Sensor calibration and accurate drive data reporting.

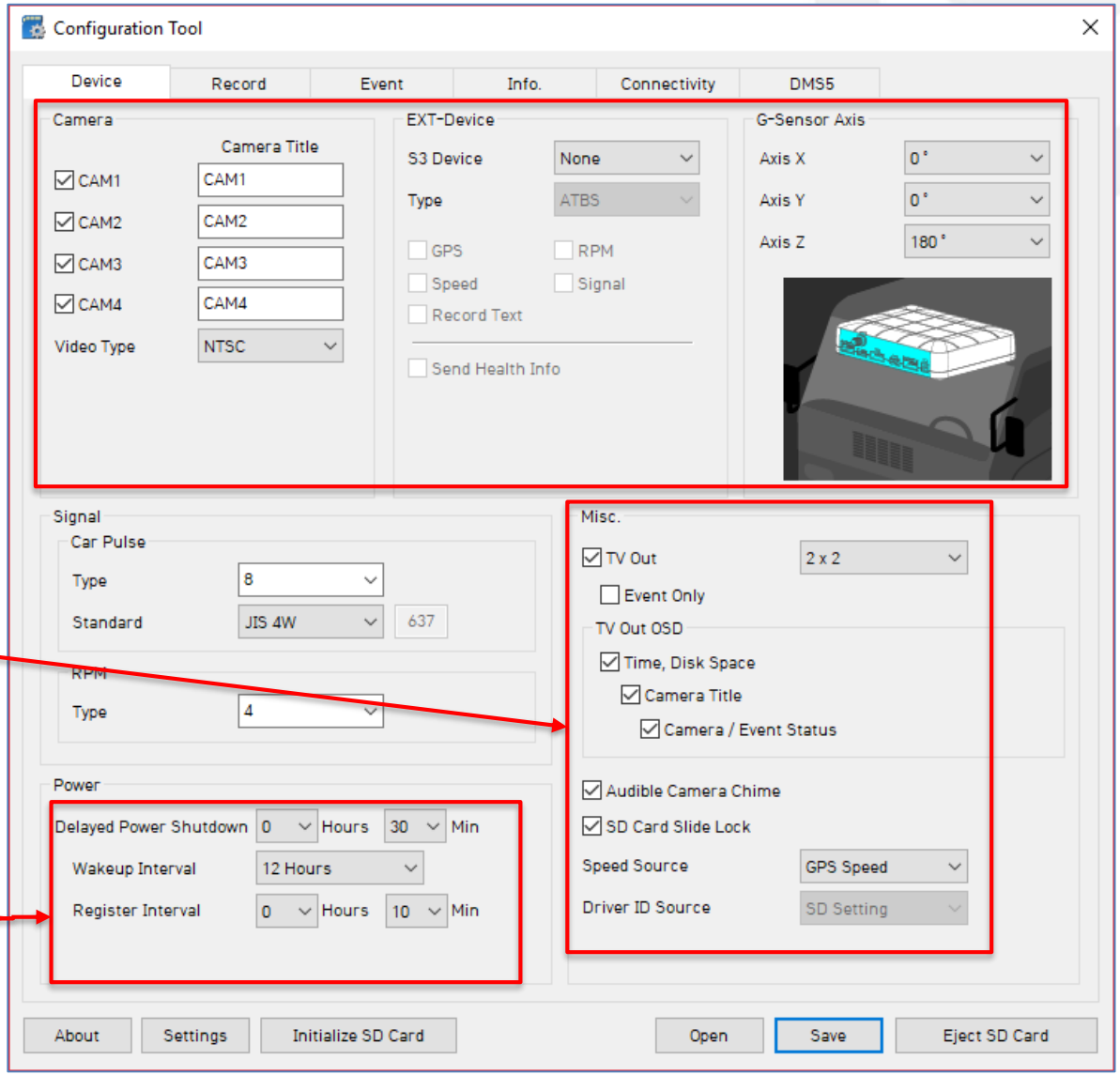
Misc.

- TV Out: enabled to 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 Event Only: When enabled, there will be no video signal at all unless event trigger is set (see Liveout Channel setting on Event tab)
- TV Out OSD: set what information is displayed on the LCD monitor (see here for more info)
- Audible Camera Chime: turn audible alert on or off (audible alarms can be individually turned on/off per event).

Delayed Power Shutdown: Amount of time CP4 stays powered on after ignition is turned off.

Wakeup Interval: Time interval in which the CP4 will automatically power up again after shutdown

Register Interval: How long the CP4 stays powered on during the wakeup interval.



*See pg 9 for more details on G-Sensor thresholds.

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

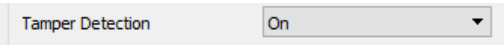
Record Modes
Event: Only events are recorded, event video duration determined by the pre & post event setting
Continuous: Records video continuously, no events (events can still be sent to Smart API server if configured on the Server tab)
Dual Mode: Records continuous at 1FPS + events at the specified FPS
*If Dual Mode is set, you can adjust the SD card partition for event and continuous video here

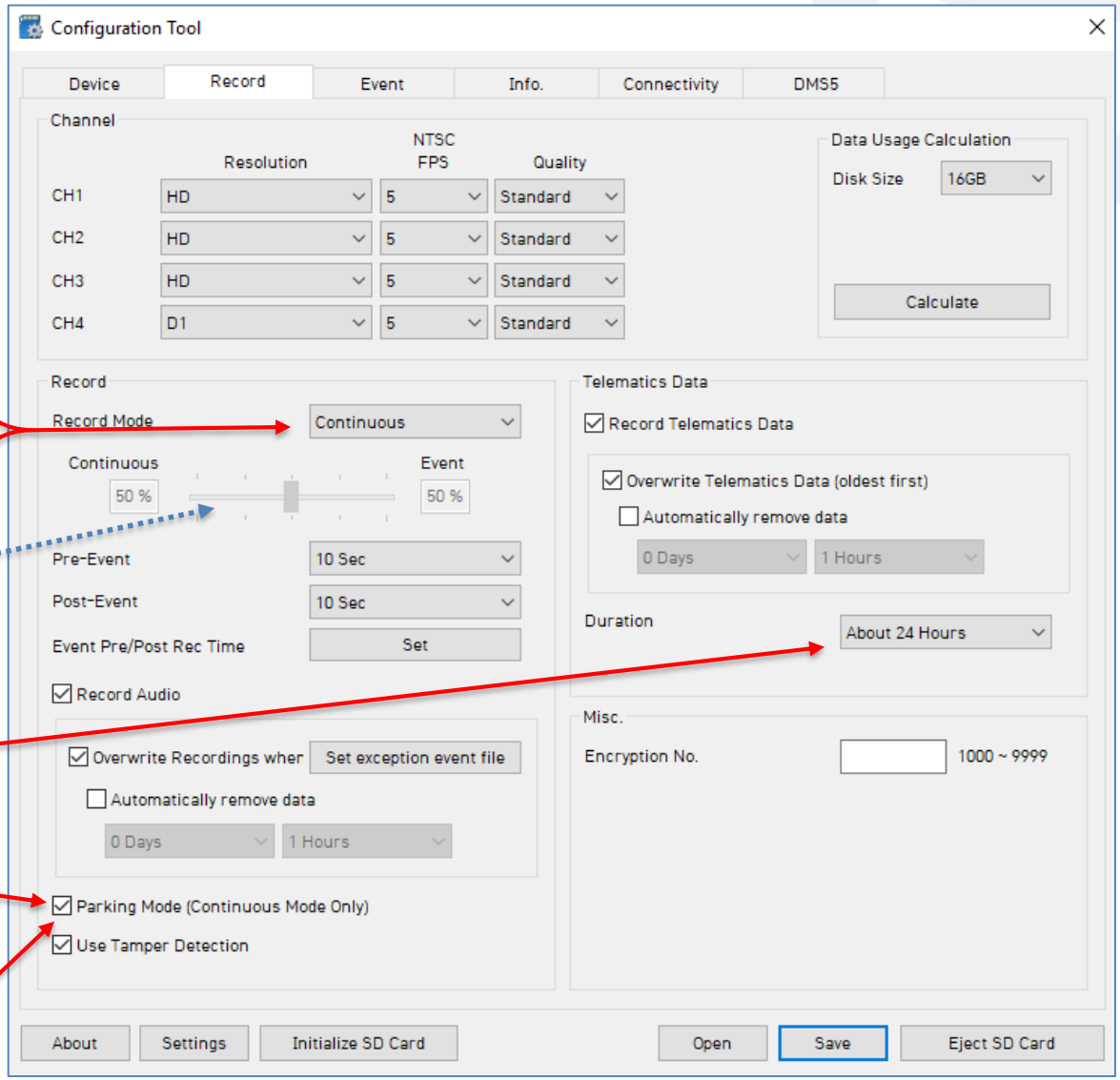
Audio recording can be turned on or off here

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

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

Tamper Detection ensures that MDT files are not tampered/manipulated. When using SmartWitness PC software, any MDT file which is not an original MDT file will populate a warning. Tamper setting must also be enabled on the PC software





The settings shown here are recommended for Telematics solutions using Smart API

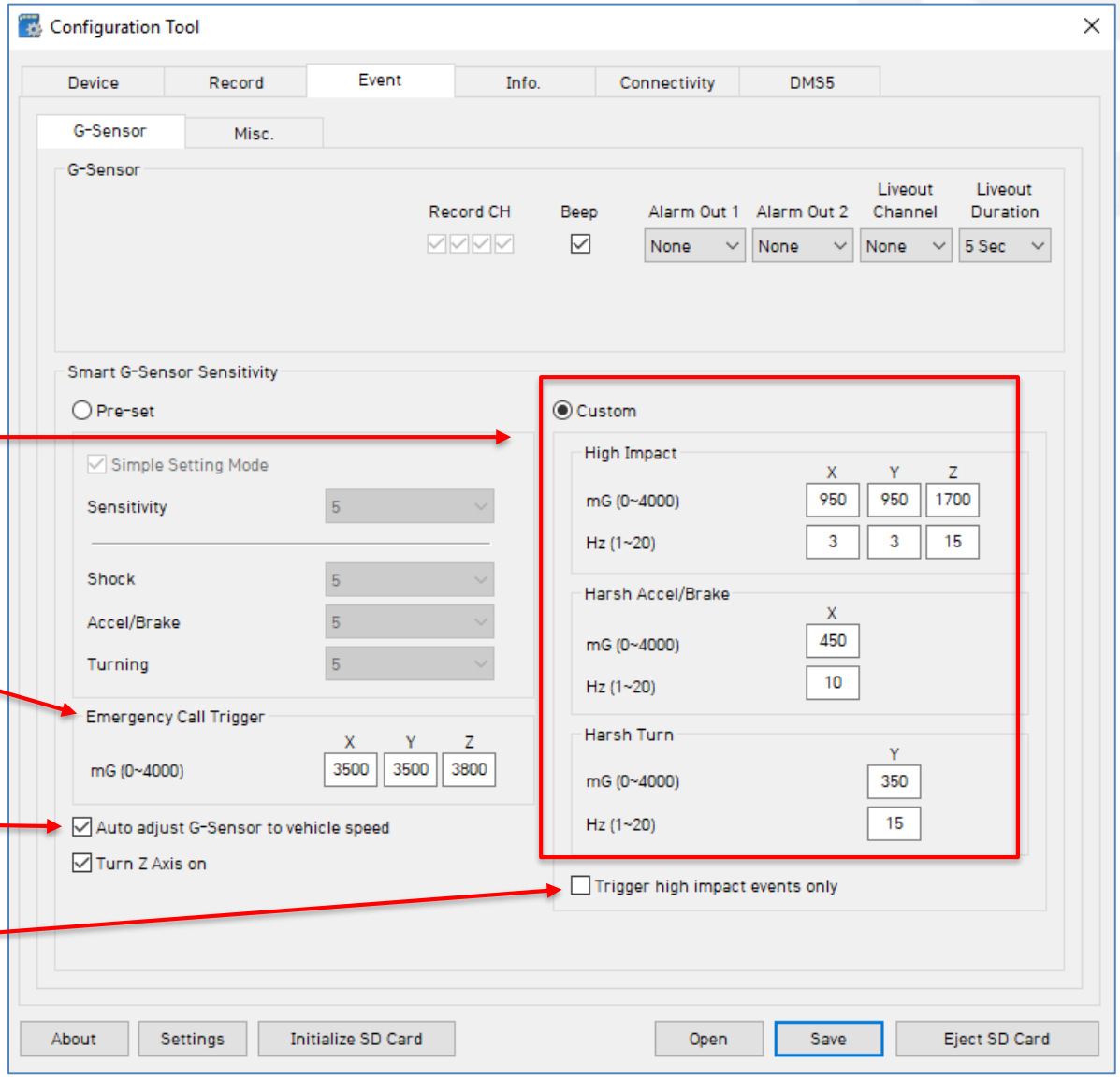
Event Tab – G-Sensor

*G-Sensor Sensitivity Settings

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

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

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



See pg 10 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

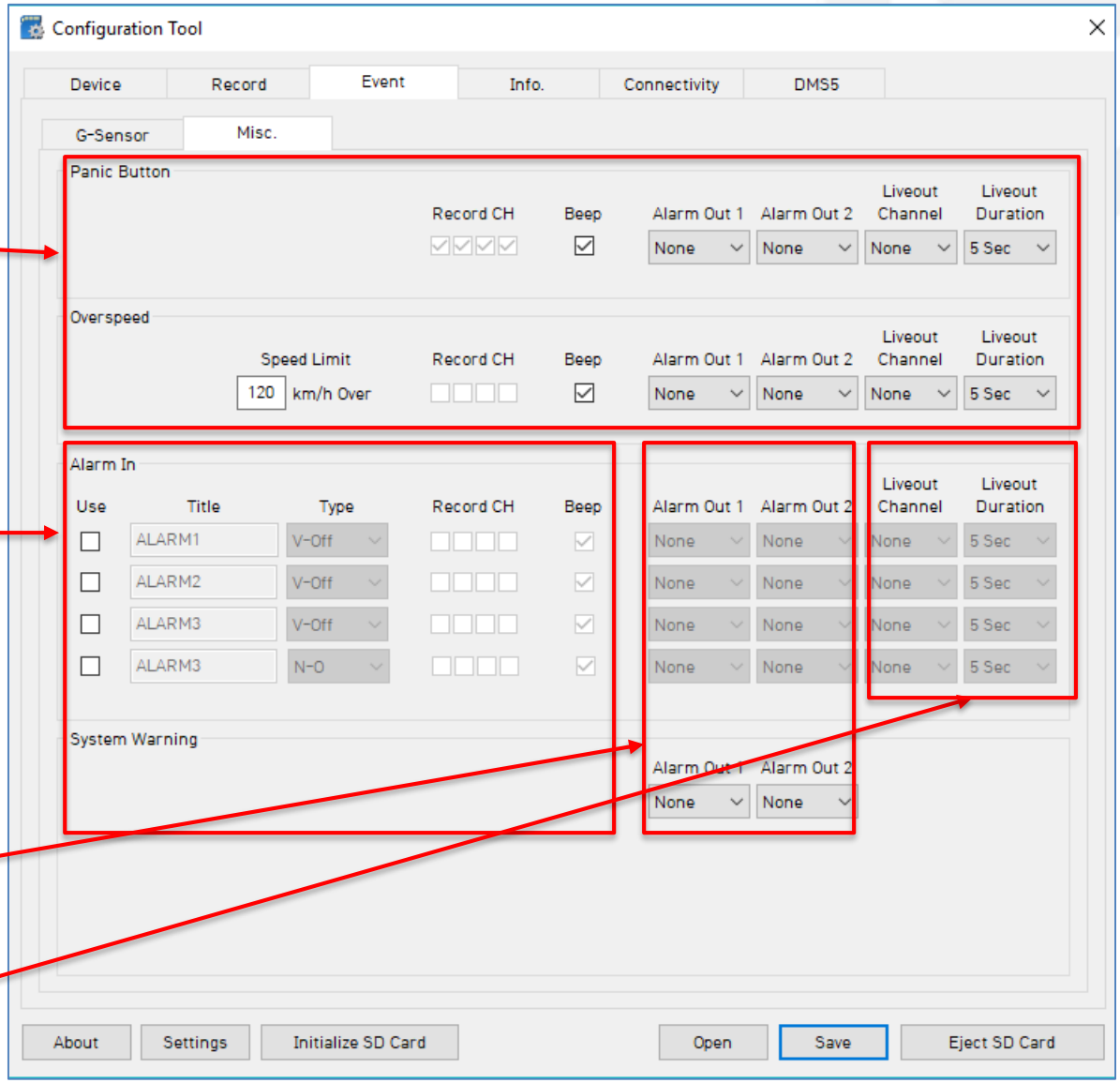
If using the optional alarm input triggers (Alarm1: white, Alarm2: Purple, Alarm3: Green, Alarm4: Orange) then you need to check the box(s) here and label them according to the input type (i.e. horn, lights, door open, etc.)

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

NOTE: Alarm4 may not be supported by older versions of CP4 hardware. CP4 devices shipping from August 2018 and forward will support this 4th alarm input.

Alarm Out, if selected, will send a 5V output from the Yellow wire to a 3rd 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



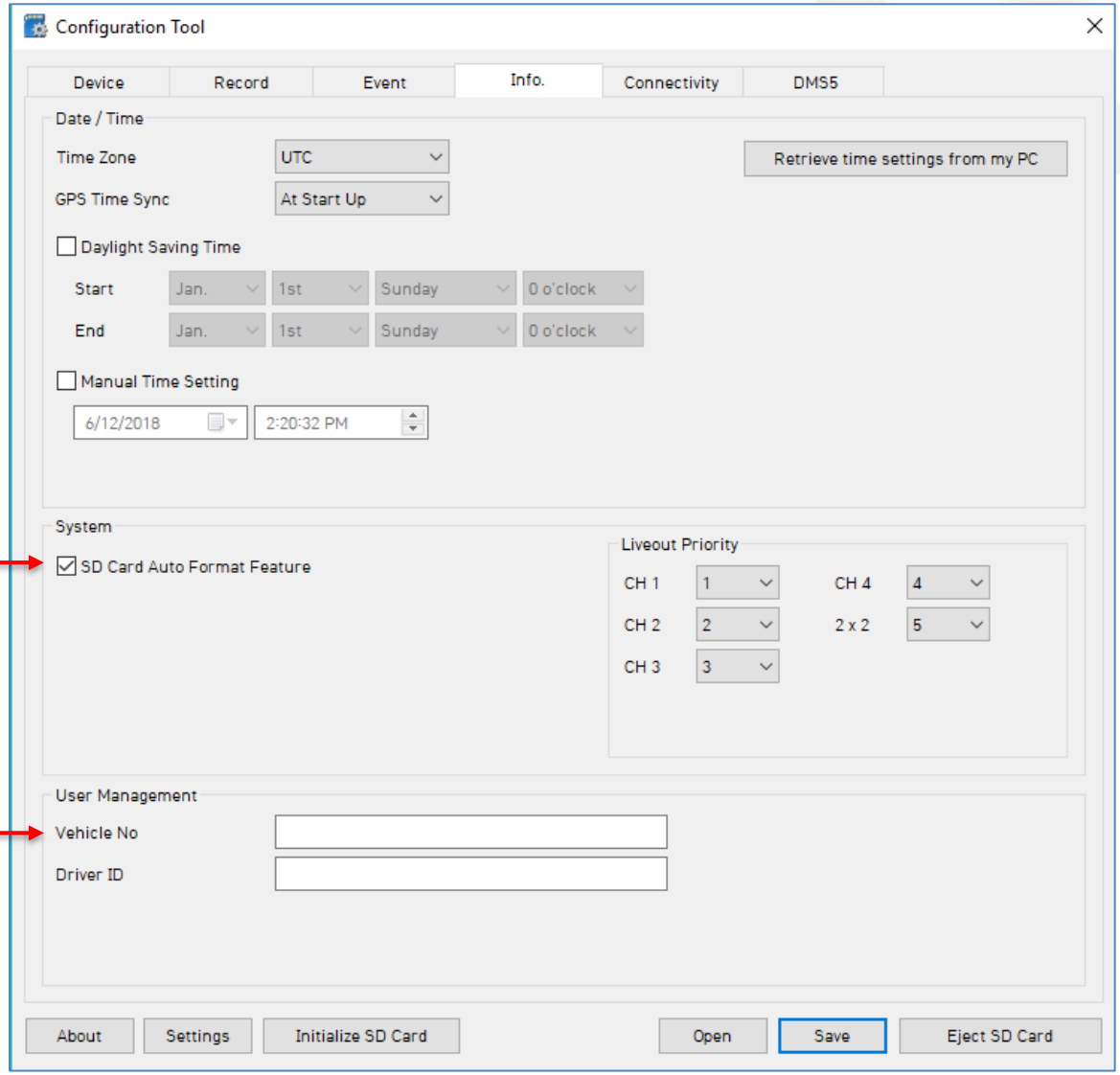
Info Tab

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

SD Card auto format feature enables the CP4 to perform automatic maintenance on the SD cards when there is an issue. SD cards need to be re-formatted occasionally over time. This unique feature reduces the administrative burden of managing SD card formatting amongst your fleet

NOTE: SD card data will be deleted when an auto-format occurs

Vehicle No & Driver ID can be added here. These values will be able to be watermarked on the AVI converted video using the PC software.



Connectivity Tab

When using CP4 as a connected device, "Enable" the connectivity here

Add Mobile Network provider details here

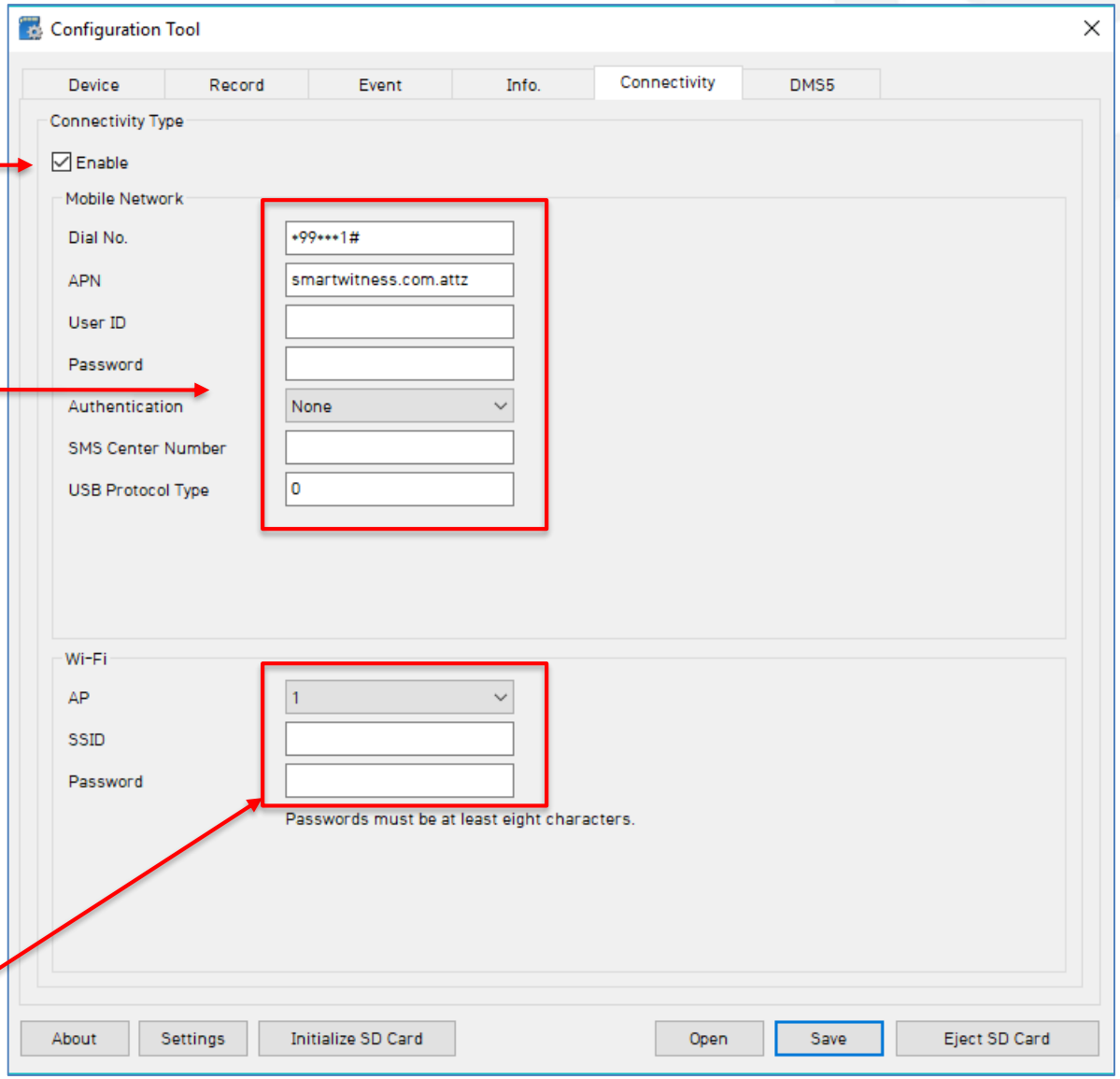
If using SmartWitness SIM (AT&T), the APN should be as shown

If using SW UK (O2 Arkessa) below

*99#	
arkessa.com	
arkessa	
arkessa	
None	
0	

You can enable WiFi connectivity instead of celluar connectivity with the use of an approved WiFi USB dongle. 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. CP4 will scan for as many networks as are added here in its settings



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 CP4 to server. Livetrack2 contains GPS coordinates. LiveTrack3 does not.

Transmit Event Data: Check to enable CP4 posting event notification and images to the server.

Transmit Telematics Data: Check to enable CP4 to send DRV data (static/compressed file containing drive data from every second the vehicle is in operation.

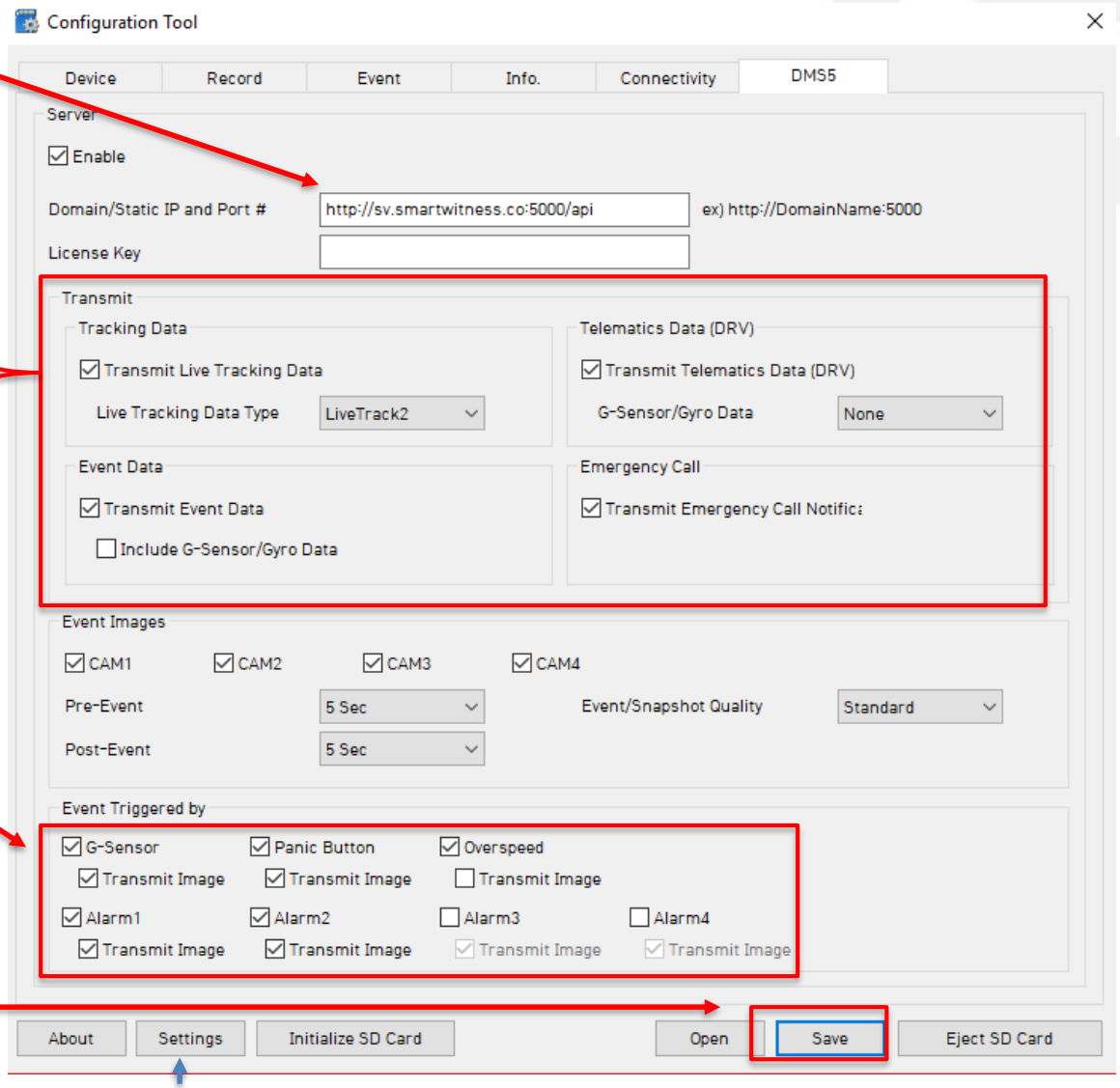
Transmit Emergency Call: Check to transmit ecall/Severe Shock events.

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

Select the events here which the CP4 will transmit to the server in real-time. These events will transmit instantly even if CP4 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 CP4 and power on.



You can also save the settings as default to the config tool software by clicking "settings" and "Save current settings as default"

CP4 G-Sensor Threshold Table

Low Speed Table

Level	axis	ACCSENX		ACCSENY				ACCSENZ	
		Impact		Sudden start/ sudden stop1		Sudden start/ sudden stop2		Quick Turn	
		G(mg)	Hz	G(mg)	Hz	G(mg)	Hz	G(mg)	Hz
1 (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	-	-	-	-	-	-

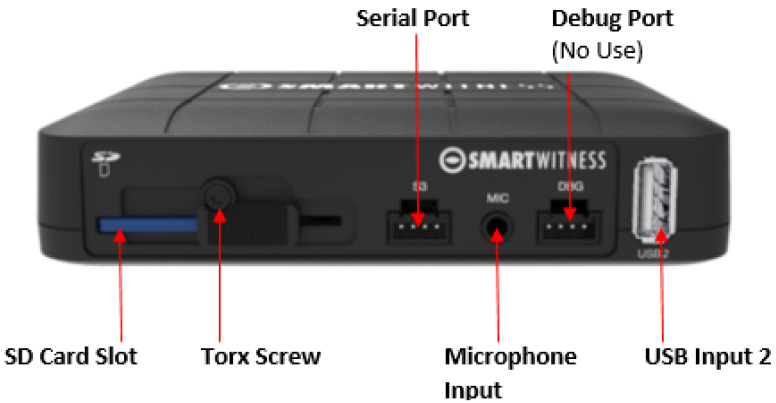
High Speed Table

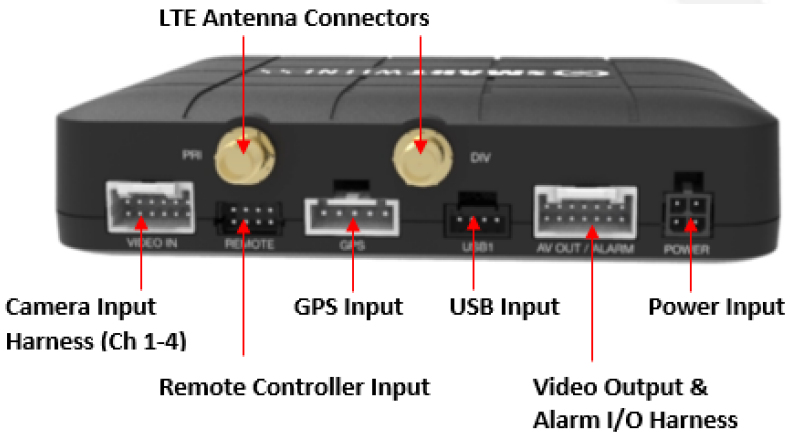
Level	axis	ACCSENX		ACCSENY				ACCSENZ	
		impact		Sudden start/ sudden stop1		Sudden start/ sudden stop2		Quick Turn	
		G(mg)	Hz	G(mg)	Hz	G(mg)	Hz	G(mg)	Hz
1 (less sensitive)	X	1350	1	480	10	-	-	-	-
	Y	1350	1	-	-	-	-	420	15
	Z	1450	1	-	-	-	-	-	-
2	X	1300	1	450	10	-	-	-	-
	Y	1300	1	-	-	-	-	410	15
	Z	1400	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	-	-	-	-	-	-

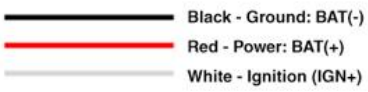
Speed Mode: When auto adjust G-Sensor to vehicle speed is checked, G-Sensor threshold will increase to levels specified in the right table when the vehicle reaches 20 KMh. The threshold will go back to settings in the left table when vehicle goes below 10 KMh.

☑ Auto adjust G-Sensor to Vehicle speed

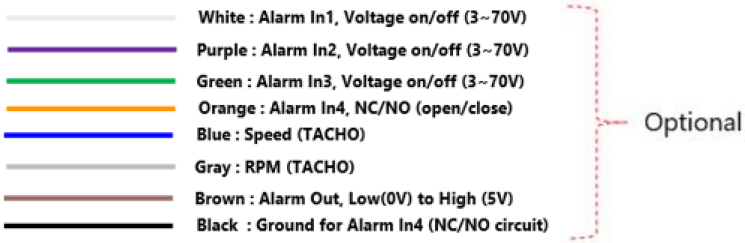
CP4 Hardware







Power Specifications
Input: DC 10-32V, 2000 mA
Output: DC5V, 2500 mA



[CP4 Installation guide can be downloaded here]

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This is Video Telematics.