FleetCam® Essential
FC-ESNTL-NA-TME32C

AI-Powered Safety for Modern Fleets

- Built-in GPS tracking
- Road & driver event detection
- Wide-angle, road-facing view
- Plug & Play installation (OBD-II & JBUS)

Wake-up at will

Remote wake-up and sleep mode allows your team to stream or view historic footage remotely when needed while also conserving vehicle battery life.

Next-level clarity

Armed with 1080p HD resolution, FleetCam Essential gives you the clarity you need while infrared ensures excellent low-light performance.

Driving has never been safer

FleetCam Essential's powerful AI detects and warns of safety events, saving lives and improving driving behavior with features like harsh driving detection, follow distance warning, and more.

Effortless communication & tracking

With Wi-Fi, cellular communication, positioning module, echo cancellation, and noise canceling support, in-cab communication becomes effortless and clear.

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Built on powerful AI edge processing, the FleetCam Essential gives you everything you need to monitor your fleet and improve driver safety and accountability. It features AI safety event detection and alerts, 2-channel recording, and crystal-clear HD footage with excellent low-light visibility.

Specification

Positioning

GNSS	• Supported • GPS L1 C/A: 1575.42 MHz • Galileo E1: 1575.42 MHz • GLONASS L1: 1598.0625–1605.375 MHz • BDS B1, BDS B1C, QZSS L1 C/A

Network

Wi-Fi®	Support 2.4G (IEEE Std. 802.11a/b/g/n)
4G	Plug-in SIM card (Nano SIM card)
North America:	LTE FDD: B2/B4/B5/B12/B13/B14/B66/B71 WCDMA: B2/B4/B5
Bluetooth®	Bluetooth 4.2

Physical

Dimensions (mm)	• Dashcam: 113.0 mm × 67.8 mm × 88.2 mm (excluding bracket) (± 2 mm) • Package: 176 mm × 150 mm × 114 mm; (± 3 mm)
Weight (kg)	• Device Only: 295g • Accessories + package: 745g (±10g)

Storage & Sensor

Six-Axis Sensor	Harsh acceleration, Harsh deceleration, Harsh cornering
Environmental Light Sensor	Used for the in-cab camera, for day/night mode switching
Micro SD card	128GB eMMC + 1x 32GB microSD (upgradeable up to 1TB) (FTS Approved SD cards only)

Power

Power Supply	9-36V Range
Power Consumption	• **standby**:13.5V@5.66mA, 27V@3.4mA • **sleep**: (4G and MCU powered): 13.5V@71~125mA, 27V@30~56mA • Typical power consumption: ~7.56W • Full-load power consumption: ~10.06W

Audio-Video

AV Recording	2-channel video (2 internal channels / Support ADAS and DMS)
Video Coding	H.265
Audio Compression	G.711
Audio	Built-in MIC
Loudspeaker	Built-in speaker, power: 3W, with adjustable volume, not less than 70 dB at 1 m distance

Enviroment

Operating Temp.	-40°C ~ +70°C (-40°F ~ +158°F)
Storage Temp.	-40°C ~ +85°C (-40°F ~ +185°F)
Operating & Storage Humidity	15~95% non-condensing
IP Rating	IP30

Recording

Video Compr. Format	H.264/H.265 (Default)
Audio Compr. Format	ADPCM, G.711, G.726
Image Resolution	• ADAS: 1080p (1920 × 1080) • DMS: 1080p (1920 x 1080) • Supports PAL & NTSC

Ports

I/O Port	2 input/1 output

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Status Indicators

Power Status Lights

Off: The device is not powered on
Steady green: The device is powered normally

Alarm Indicator

Off: The device is not currently uploading data
Red flashes three times: The device is uploading data

GPS Signal Indicator

Off: Normal
Steady red: No GPS, or module may be malfunctioning
Red flash (once per second): GPS reception is poor

Network Status Indicator

Off: The device is connected to the server normally
Steady red: The device is not connected to the server

Wi-Fi Status Indicator

Off: The device is in Disable or Client mode
Steady green: The device is in AP mode
Steady red: There is an issue with the Wi-Fi

Recording Status Indicator

Off: The built-in or extended camera is operating normally
Steady red: The built-in or extended camera stopped recording (including privacy mode)/failed

Button

SOS or Manual trigger event: Single Press
Privacy Mode: Press and hold to enable
WiFi AP Mode: Press twice within 2 seconds to enable

FleetCam® Essential – Driver Events

ADAS FEATURES

- Following distance warning
- Forward collision warning
- Lane departure
- Rolling stop sign
- Pedestrian warning

DMS FEATURES

- Driver distracted
- Driver fatigued
- Driver smoking
- Driver using cell phone
- No seat belt

HARSH EVENTS

- Harsh cornering
- Harsh accelerating
- Harsh braking

OTHER

- No driver detected
- SOS/PTO event
- Camera covered

SYSTEM EVENTS

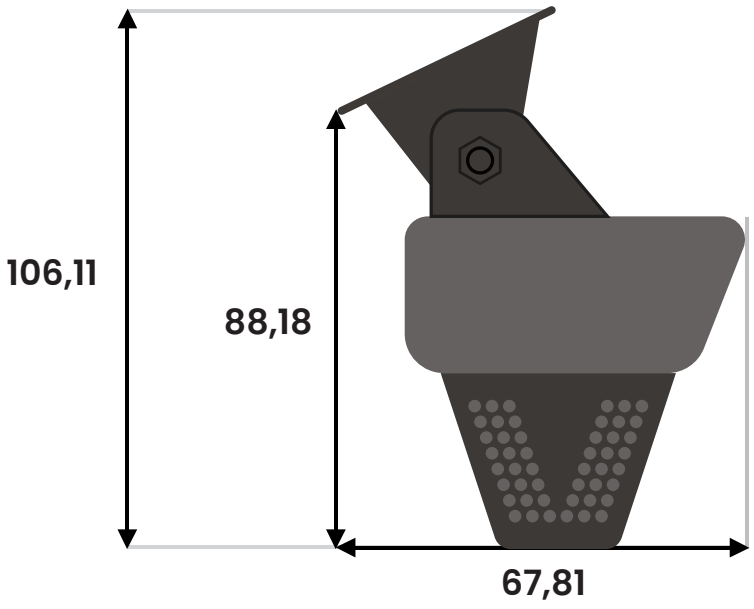
- Low voltage
- Memory error
- Video loss

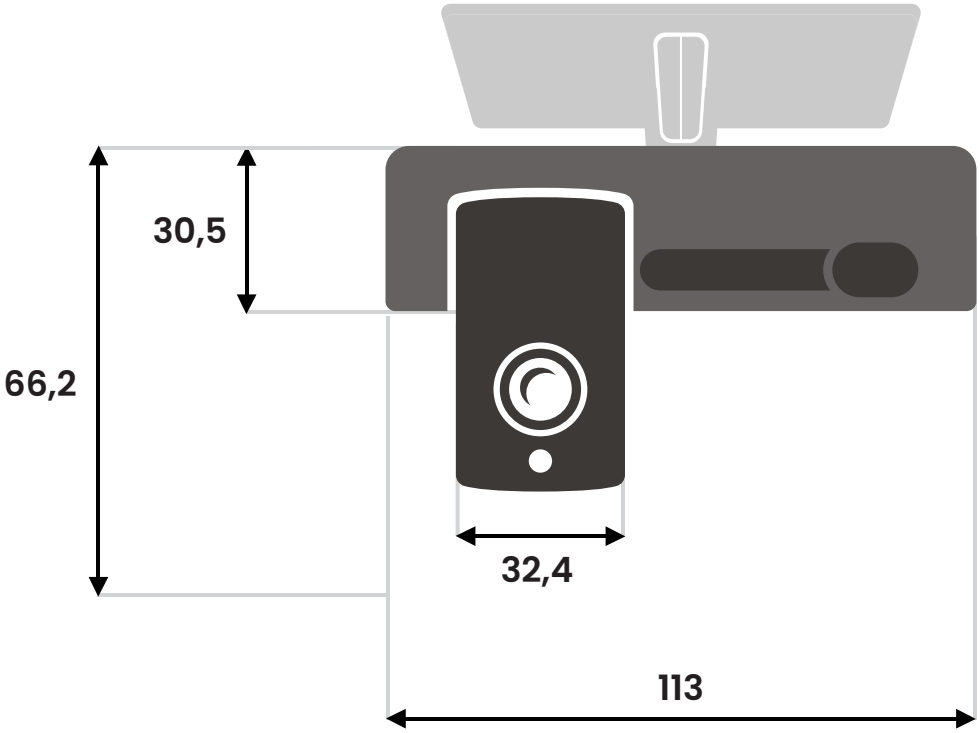
Feature Comparison Chart

	Essential	Pro
Video recording	2-channel	Up to 6-channel*
Video resolution	1080P Road & Driver	1080P Road & Driver
Field of view (fov)	106° road / 170° driver	140° road / 170° driver
AI Driver Events	YES	YES
6-Axis Accelerometer	YES	YES
GPS	High precision GNSS	High precision GNSS with dead-reckoning
Add-ons	None	Up to 4 external cameras and 1 LCD

* FleetCam® Pro 6-channel capability requires the FleetCam® Hub add-on module.

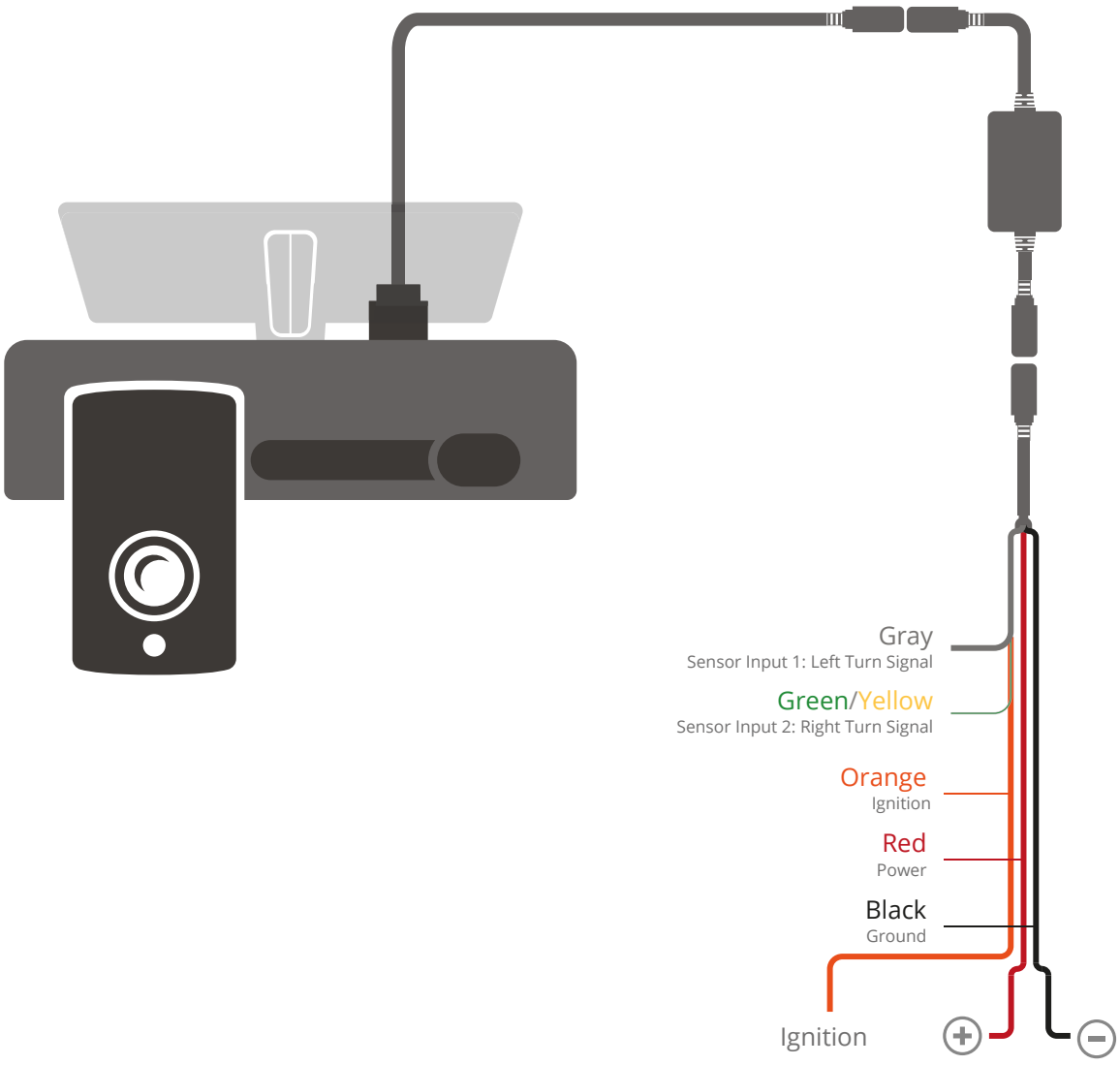
Dimensions (mm)



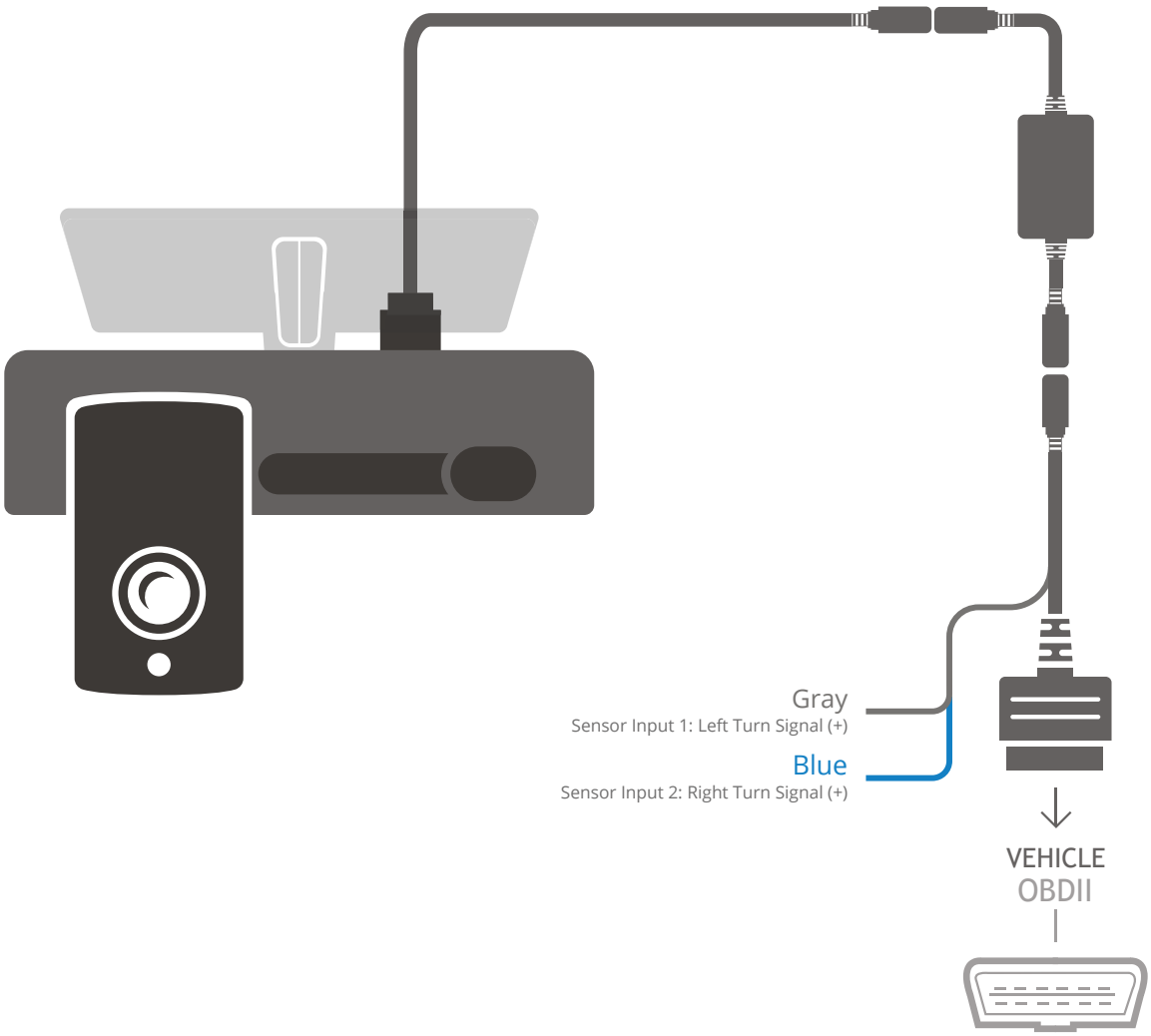
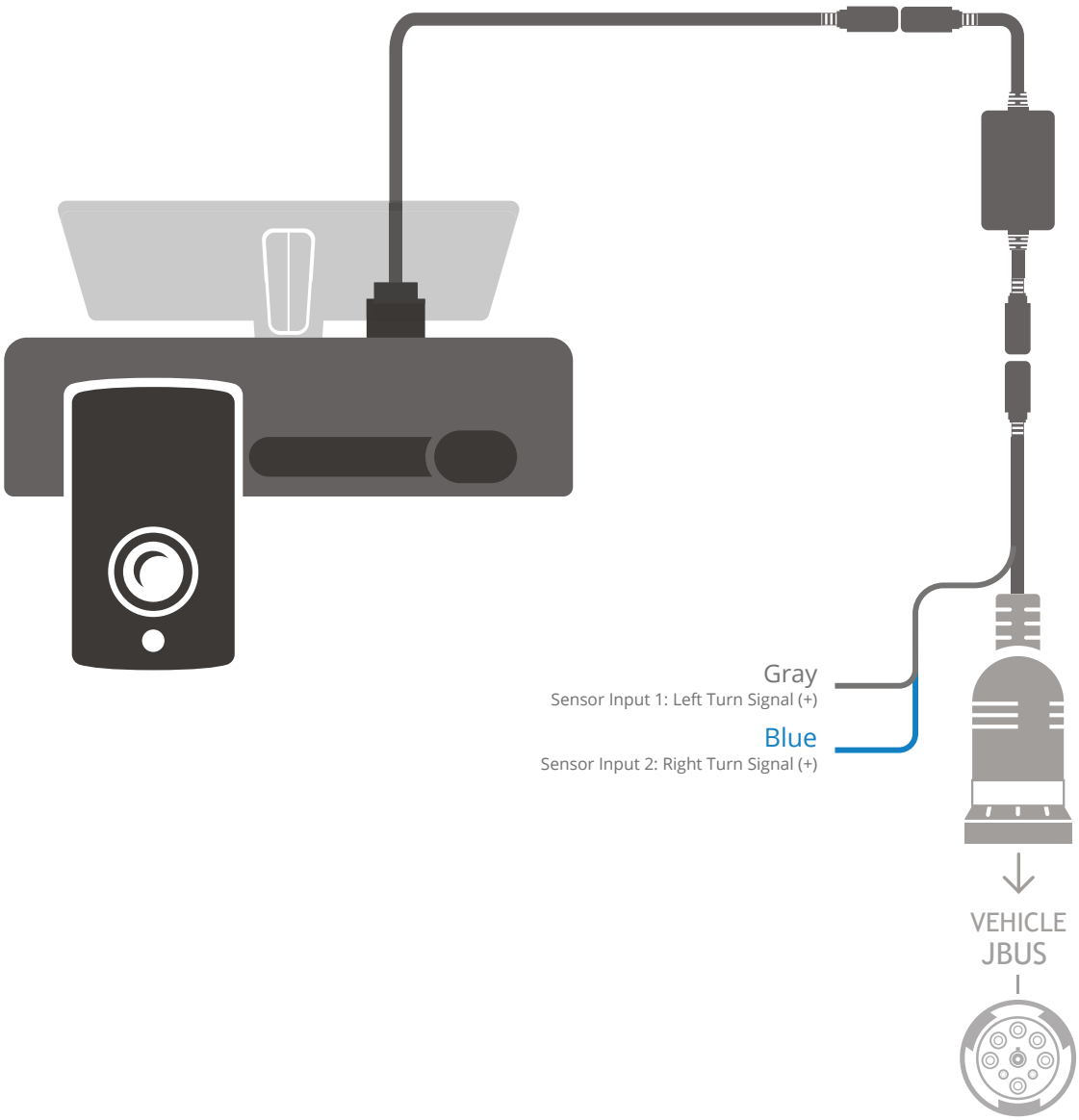


System Connection Diagrams

1. FleetCam® Essential Road Only Hardwired



2. FleetCam® Essential OBD-II



3. FleetCam® Essential JBus