

AIR II FAQ

Questions about the AIR II? Review the commonly asked questions and answers for the AIR II.

AIR II Series Frequently Asked Questions

Question	Answer
How does the AIR II handle low light or night conditions?	It is equipped with active IR LEDs for night vision support.
How does the AIR II record and when?	Video is recorded in driving mode. While in driving mode, the camera records in a constant looping mode. If the camera detects abnormal movement, as in a collision, a highlight video is automatically generated for easy location by the user. This highlight recorded to the camera's SD card is available upon request and viewable after it has been successfully retrieved from the Portal.
How long is the recording for an event identified by the AIR II?	Driver behavior events will upload 15 seconds of footage; 8 seconds before the triggered event and 7 seconds afterwards.
How does the AIR II mount to the windshield and is it removable?	The camera comes with a custom mount that attaches securely to the windshield with heat-resistant adhesive tape.
How long are video clips stored?	Successfully requested camera events are available in the Portal for 30 days after the event has been triggered.
When can I expect camera footage to be available once requested?	The camera will upload footage to the cloud when it is powered on and has a good cellular signal. This process typically takes about 5-10 minutes to upload, if available.
Does the AIR II gather diagnostic information from the vehicle?	Yes, if installed with a diagnostic cable directly to the vehicle's diagnostic port, then the device will attempt to report engine data if supported and provided by the vehicle.



Question	Answer
What engine diagnostic data can be reported by the AIR II?	<p>The AIR II currently supports the following data:</p> <ul style="list-style-type: none">- DTC alerts- Odometer- Fuel Level- Voltage- Coolant Temp <p>Note: Diagnostic reported data varies by make/model/year, not guaranteed.</p>
Can the AIR II report power loss?	<p>Yes, using the existing Power Disconnect Alert, users can take advantage of the camera's internal battery, enabling them to receive power loss alerts if/when the camera loses power.</p>
Will I be able to run alerts and reports on the AIR II camera?	<p>Yes, though alerts may be limited to general GPS tracking and various diagnostic data (if vehicle supported).</p>
What are the dimensions of the AIR II?	<p>Length: 87mm Height: 126mm Width: 46mm Weight: 212g</p>
How is video encrypted on the AIR II?	<p>The camera's data transmission is TLS/SSL encrypted. TLS and SSL are widely recognized as secure protocols that enable server authentication, client authentication, data encryption, and data integrity over networks.</p>
What format are AIR II videos saved?	<p>Videos are recorded in .TS format which is considered standard. Most universal players support this format.</p>
Why is the camera still in driving mode if I have already turned off the car?	<p>Under normal circumstances, it will enter parking mode for a short period of time after the vehicle has turned off. If the camera does not enter parking mode for a long time after the vehicle has turned off, contact support.</p>

Question	Answer
Where is event video stored on the AIR II?	The camera uploads video evidence to the Cloud upon user request while also recording to a MicroSD card.
How do you install the AIR II power connection?	Please refer to the installation guide: <ul style="list-style-type: none">- Conventional Hardwire Install Guide- Diagnostic Port Install Guide
How do you install the camera on a freightliner or heavy duty vehicle?	Use a 3-wire harness or J1939 9-pin cable (available for purchase).
How is AIR II powered?	With the included power cable (direct wire, OBD, or 9-pin), the camera in the vehicle can provide 24/7 protection for weeks with easy and straightforward installation.
To what extent can the AIR II see behind the vehicle?	Like the human eye, the camera can see anything that is visible through the vehicle windshield and windows. Also, like the human eye, the camera is limited by dark tinting and solid objects such as the vehicle body or passengers or privacy screens.
What are AIR II Operating/Standby Temperatures?	-20°C to +70°C (Parking Mode) -20°C to +45°C (Driving Mode)
How does the AIR II handle heat?	The camera is intended to stay mounted to the windshield to protect the vehicle at all times, so several technical measures went into its design to ensure it performs well even in hot conditions. For instance, the on-board thermal monitoring system proactively adjusts machine activity under different thermal conditions. Under the worst heat conditions, the camera knows to turn itself off to protect its electronic components.
Does the AIR II record audio?	The camera can record audio; this feature is disabled by default.

Question	Answer
<p>Can I use the AIR II internationally?</p>	<p>Since the camera is a connected product that requires certification, we offer service only in the United States, Mexico, and Canada.</p>
<p>What happens if the camera loses power mid-incident?</p>	<p>The camera is equipped with a 600mAH backup battery, capable of capturing up to 10 minutes runtime after power loss.</p>
<p>What is the length of the power harness for the AIR II camera?</p>	<p>10 feet.</p>
<p>What is considered "Dangerous Driving" for the AIR II?</p>	<p>The driver will hear two types of in-cab alerts: Harsh and Severe. The Portal doesn't differentiate between these two in terms of scoring but the events are triggered from different thresholds. (mg = mili g force)</p> <p>Acceleration (event must have a duration of .25s)</p> <ul style="list-style-type: none"> • Harsh Acceleration~: 267 mg • Severe Acceleration: 297 mg <p>Braking (event must have a duration of .25s)</p> <ul style="list-style-type: none"> • Harsh Braking: -350 mg • Severe Braking: -430 mg <p>Turning (event must have a duration of .19s)</p> <ul style="list-style-type: none"> • Harsh Turn: 310 mg • Severe Turn: 350 mg
<p>Does the AIR II report engine diagnostic data?</p>	<p>Yes, through a diagnostic cable installation the device is capable of reporting an array of engine diagnostics, dependent on Year/Make/Model.</p>
<p>What types of engine diagnostic data is possible with the AIR II?</p>	<p>The following are data that is possible (not guaranteed) with the AIR II: VIN, DTC codes, RPM, Vehicle Speed, Vehicle Battery Voltage, Coolant Temp, Odometer, Fuel Level, and more.</p>

SD Card Frequently Asked Questions

Question	Answer
What is the default SD card shipped with the camera?	The camera is shipped with a 256GB SD card. You can update this SD Card to 512GB independently in the field, if preferred.
How does the AIR II manage storage on the microSD card?	For video storage on the camera, we recommend high-endurance SD cards (class 10 or higher MLC MicroSD cards) with a minimum size of 32GB, accommodating SD cards up to 512GB. (Use of non-high-endurance SD cards or SD cards with 8GB or less is not recommended.)
What microSD cards are recommended for the AIR II?	We recommend using a high endurance SD card (class 10 or higher MLC MicroSD card 32-512GB) designed for continuous recording situations. While other cards will work with the camera, they are much more prone to card errors and failures due to the high frequency of IO for video applications.
What is the AIR II microSD card capacity?	The camera accepts MicroSD Cards up to 512 GB.
What is the AIR II record time and media capacity?	The record time for the camera will vary based on the user preferences for event detection and microSD card capacity. View the chart below for estimated recording times.
Why does the SD card in my camera no longer record video?	Over time, all microSD™ cards degrade due to this repeated overwriting. Since dash cameras, including the AIR II and Drive360, record non-stop, the memory card may eventually need to be replaced. By default, AIR II and Drive360 devices ship with a 256GB SD Card, which equates to likely seeing some degradation in SD card performance after ~30+ months; therefore, it is recommended the SD card be replaced approximately every 30-36 months.

MicroSD Card Chart*

MicroSD Card Size	Driving Time/Max Events Stored
32gb	2 hrs/160
67gb	4 hrs/160
128gb	9 hrs/320
256gb	20 hrs/320
512gb	42 hrs/320

* Assumes average 40 hours runtime per week.

Fleet All-in-One with AI Frequently Asked Questions

Question	Answer
<p>What events are reported by the device when AI is enabled?</p>	<p>Road Facing</p> <ul style="list-style-type: none"> - Forward Collision Warning (This feature is disabled by default; users with permissions can enable) - Close Following - Lane Departure - Stop Sign - Pedestrian Collision Warning (This feature is disabled by default; users with permissions can enable.) <p>Driver Facing</p> <ul style="list-style-type: none"> - Drowsiness/Fatigue - Cell Phone Use - Distracted Driving - Seatbelt
<p>What are the definitions for each event?</p>	<p>Please see AI-Based Road-Facing Event Type Definitions and AI-Based Driver-Facing Event Type Definition tables below for event definitions.</p>
<p>How does the camera detect Seatbelt?</p>	<p>Up to 15 frames per second (fps), the camera looks for a seatbelt across the chest or over the shoulder. When drivers fail to fasten their seatbelt and begin driving, the detection delay for this event will trigger after 20 seconds of drive time.</p>
<p>How does the camera detect Cell Phone Use?</p>	<p>Up to 15 fps, the camera looks for a cell phone in the driver's hand. Once this is detected, the camera will determine the following: – Phone up to the driver's ear – Driver's head position and eye gaze looking towards the phone in hand The driver must maintain this posture for 8 seconds for the alert to trigger.</p>
<p>How does the camera detect Distracted Driving?</p>	<p>Up to 15 fps, the camera is reading the head pose and eye gaze of the driver. When the eyes cannot be seen and eye gaze cannot be determined (i.e., wearing sunglasses), head pose will be used solely to determine the distracted state. The driver must maintain this posture for 3 seconds for the alert to trigger.</p>

Question

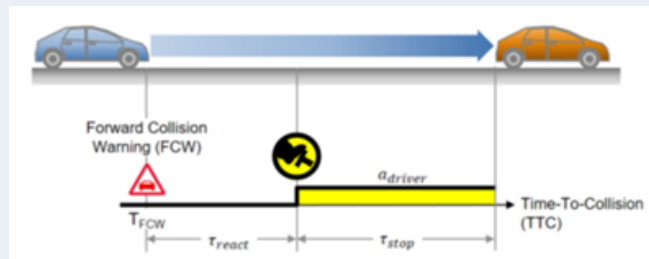
Answer

How does the camera detect Drowsiness/Fatigue?

Up to 15 fps, the camera is reading the head pose, eye state, and mouth of the driver to detect behaviors that indicate a drowsy state. Those behaviors include yawning, head nodding, scratching the face, and eye closure. The camera samples a rolling 120-second window and looks for the combination of these behaviors to detect a drowsy state. The driver must maintain some variation of this state for 5 seconds for the alert to trigger.

How does the camera detect Forward Collision Warning?

Forward Collision Warning sends a notification when the high-threat vehicle found in the image is in the driver vehicle's (blue car) lane, driving in the same direction as the driver vehicle (blue car), and poses a collision threat to the vehicle. This warning is based on the time to collision so that the driver vehicle has time to slow down and avoid a collision or reduce its impact.



Time to Collision of leading vehicle: in seconds – The time until the collision of a vehicle with the leading one, given that the speed of both vehicles remains the same as the one they have at the given time instant. The time is infinite if the leading vehicle travels with an equal or higher speed than the ego vehicle.

A vehicle must be traveling a minimum of 40km/h (24.85 mph), and will trigger if the time to collision is calculated to be 1 second or less.

How does the camera detect Lane Departure?

Lane Departure Warning sends a notification when the vehicle is laterally approaching a configured lane boundary marker (ex., Solid lane crossing at high speeds, such as highway travel) to detect blatant safety violations. A vehicle must be traveling 50km/h (31.06 mph), and will trigger if the violation surpasses 1.5 seconds of activity.

Question

Answer

How does the camera detect Drowsiness/Fatigue?

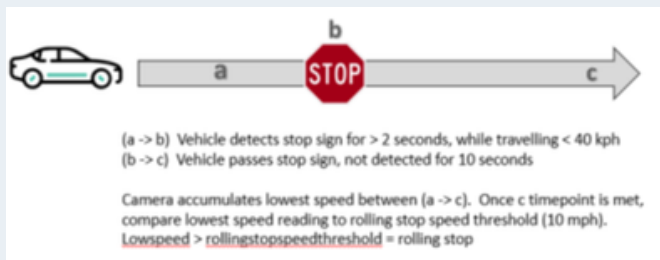
Up to 15 fps, the camera is reading the head pose, eye state, and mouth of the driver to detect behaviors that indicate a drowsy state. Those behaviors include yawning, head nodding, scratching the face, and eye closure. The camera samples a rolling 120-second window and looks for the combination of these behaviors to detect a drowsy state. The driver must maintain some variation of this state for 5 seconds for the alert to trigger.

How does the camera detect Stop Sign Violations (SSV)?

The camera's algorithm locates federally regulated traffic signs in the supplied image. The camera's ADAS recognizes MUTCD (Manual of Uniform Traffic Control Devices) and MUTCDC (Manual of Uniform Traffic Control Devices for Canada) Stop Signs.



Stop sign violations are behaviorally geared to detect "rolling stops". SSV is not looking for complete, speed-zero stops at each sign. This strict expectation from other ADAS systems often leads to driver frustration. Instead, Fleet All-in-One SSV looks for egregious rolling vehicles through the stop sign, never falling below 10 mph in this sequence:



What user permissions are needed to configure cameras?

Upon initial activation, configuration access is limited to the Admin user, and other users can be given access via the Roles/Permissions tab in People Admin.

Question	Answer
Where can I enable or disable reported events?	In the Portal, Admin users can navigate to the Admin: Dashcams tab, then click the Edit Camera Settings link.
Can I enable or disable the in-cab alerts to control event notifications to the driver?	Yes, a user with permissions can click the "In-cab alert" toggle from the Edit drawer in the Admin: Dashcams tab to enable or disable in-cab notifications to the driver.
Can I enable or disable the ability to record the in-cab audio to manage fleet privacy?	Yes, a user with permissions can check (enable) or uncheck (disable) the "Audio" option from the Edit drawer in the Admin: Dashcams tab.
Can I enable or disable the in-cab camera?	Yes, a user with permissions can check (enable) or uncheck (disable) the "Driver" option from the Edit drawer in the Admin: Dashcams tab.
Why isn't my change to my camera configuration taking effect on the camera?	Please make sure that you are clicking the Save changes button (bottom of the Edit camera window) after making your edit selections. Once saved, the changes are applied the next time the camera wakes. After saving, you should allow 1- 2 trips before the full configuration takes effect.
Does the camera allow for any safety alert settings to help coach the driver for better behavior?	Yes, the camera will warn the driver with a safety assistance alarm for several events, allowing the driver to correct their behavior before triggering an event.Events supported include: <ul data-bbox="639 1535 894 1696" style="list-style-type: none">- Close Following- Distracted Driving- Seatbelt- Cell Phone Use
How does the camera admin page know what settings are applied/saved at the device level?	When a user loads the Camera Admin Edit window, a request is made to the camera to confirm what settings are active. Those settings are then represented as enabled/disabled within the Edit camera window.

Question	Answer
<p>Will my drivers be warned before they trigger an event?</p>	<p>Yes. For some event types, the driver will receive a warning before an event trigger, allowing them to correct their behavior before the event is triggered. Please see the tables below for Road-Facing and Driver-Facing Warning Sounds.</p>
<p>Will my drivers know when they have triggered an event?</p>	<p>Yes. Drivers will hear a violation sound notifying them that they have triggered an event. Please see the tables below for Road-Facing and Driver-Facing Violation Sounds.</p>

AI-Based Road-Facing Event Type Definitions, Warning Sounds, & Violation Sounds

Event	Definition	Warning Sound	Violation Sound
<p>Forward Collision Warning</p>	<p>A fast approach to the stopped vehicle ahead is detected</p> <p><i>Note: This feature is disabled by default; users with permissions can enable it.</i></p>	<p>–</p>	<p>“Collision Warning”</p>
<p>Lane Departure</p>	<p>Detected when crossing solid and double solid lines while traveling at a high speed</p>	<p>–</p>	<p>“Lane Departure Violation”</p>
<p>Stop Sign Violations</p>	<p>Detected when the driver does not perform a safe stop at an intersection containing a stop sign</p>	<p>–</p>	<p>“Stop Sign Violation”</p>
<p>Pedestrian Collision Warning</p>	<p>Detected when the time to collision with a pedestrian in vehicle lane is less than 6 seconds</p> <p><i>Note: This feature is disabled by default; users with permissions can enable it.</i></p>	<p>Announcement ring, “Pedestrian”</p>	<p>“Pedestrian Violation”</p>

AI-Based Driver-Facing Event Type Definitions, Warning Sounds, & Violation Sounds

Event	Definition	Warning Sound	Violation Sound
Drowsiness/Fatigue	Driver drowsiness detected over a rolling 120-second window of driver activity; uses a combination of detections to determine drowsy state: yawning, head nodding, eye gaze, blink rate	–	“Drowsy Driving Violation”
Cell Phone Use	Using a cell phone while driving detects when the driver is holding a phone up to their ear or near their face, also detects when holding in the hand and the driver is looking down	Announcement Ring, “Cell Phone Warning”	“Cell Phone Violation”
Distracted Driving	Driver distracted while driving; head pose and eye gaze detectors determine when the driver is looking down or away from the road ahead	Announcement Ring, “Pay Attention”	“Distracted Driving Violation”
Seatbelt	Seatbelt not detected while driving; detects seatbelt over the shoulder and across the chest to determine the state	Announcement Ring, “Fasten Seatbelt”	“Seatbelt Violation”

Fleet All-in-One Auxiliary Camera Frequently Asked Questions

Question	Answer
Can the views of the different cameras be moved within the video?	No, the camera feeds are uniquely positioned within the video view to ensure all feeds are displayed accurately and effectively.
What happens if some cameras have aux cameras and some do not? Will the cameras without aux cameras display blank spaces?	If some vehicles are equipped with auxiliary cameras and others are not, the vehicles with auxiliary cameras will display the correct auxiliary feeds in their videos, while vehicles without auxiliary cameras will only show the in-cab and road-facing camera views (if those cameras are active).
Why are the aux camera views upside down, or sideways?	If an auxiliary camera is installed incorrectly and the rotation settings are not properly updated in the install app, the camera feed may display at an incorrect angle. If this occurs, please refer to the installation guide to verify and apply the correct rotation settings: Accessory: AIR II Auxiliary Camera.
When installing the aux camera, will the install app show the real-time view to confirm rotation is correct?	Yes, the installer app provides a real-time view to help confirm that the installation is correct.
What are the specs of the aux camera?	The specs of the aux camera can be found here: Aux Cam Spec Sheet .
Does the AIR II support auxiliary cameras for added internal or external visibility?	Yes, the AIR II supports up to two additional aux cameras.
My AIR II aux camera feed isn't working correctly, what do I do?	If you are only using on AUX, make sure it is plugged into the rightmost (E1) port; otherwise, contact Support.

Question

My AIR II aux feeds are upside down or sideways when viewing the video, what do I do?

Answer

Using the manufacturer's (Waylen's) installation app, ensure the final rotation settings are accurate based on the install guide [insert link].