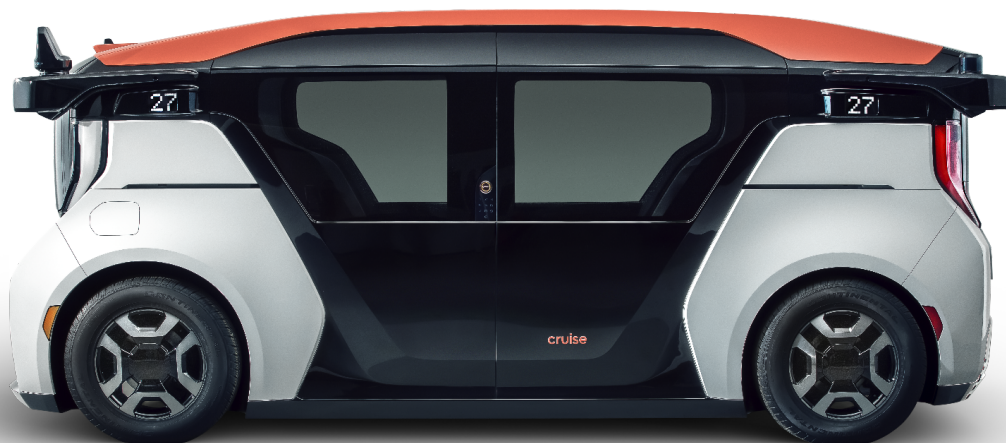




**Guide for Law Enforcement & First Responders for  
Interacting with a Cruise Autonomous Vehicle**

***Cruise Origin Version***

*Updated February 2023*



## Document Objective

This document provides guidance to law enforcement and first responders regarding Cruise's how to interact safely with our Cruise Origin vehicles on the road in a variety of scenarios. Additional information about Cruise's safety program can be found in the *General Motors 2018 Self-Driving Safety Report*<sup>1</sup> and the *2018 Self-Driving Safety Report: Appendix A*.<sup>2</sup> Further information on how Cruise develops our systems, including for the Origin, can be found in our *Under the Hood* presentation.<sup>3</sup>

## Cruise Vision

Cruise is an all-electric self-driving technology company with a mission to build the world's most advanced autonomous vehicles to safely connect people to the places, things and experiences they care about. Founded in San Francisco, California in 2013, Cruise is committed to developing a shared, purposeful self-driving service that we believe will bring new safety, accessibility and environmental benefits to more communities.

Cruise's mission is founded on the profound premise that today's transportation status quo is fundamentally broken. In 2021, an estimated 42,915 died on U.S. roads, an increase of 10.5% from 2020, with major percentages for pedestrians and cyclists as well.<sup>4</sup> The toll is astronomical globally: more than 1.3 million people died on roads around the world.<sup>5</sup> The transportation sector is also known to be the single largest contributor to greenhouse gas emissions in the country, accounting for nearly 30% of total emissions.<sup>6</sup> In our home state of California, transportation's portion is an even larger contributor, accounting for more than 40% of emissions.<sup>7</sup> In addition, despite revolutionary changes in transportation, progress has been uneven. Six million people with disabilities do not have access to the transportation they need.<sup>8</sup> A 2014 Harvard study found that commute times and access to employment opportunities proved to be some of the strongest predictors of upward mobility.<sup>9</sup> The bottom line is that transportation today is too dangerous, polluting, inaccessible and expensive, and Cruise believes the root of these failures lie with the 20th century model of the human-driven, internal combustion,

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<sup>1</sup> *2018 Self-driving Safety Report*, GM, <https://www.gm.com/content/dam/company/docs/us/en/gmcom/gmsafetyreport.pdf>.

<sup>2</sup> *2018 Self-driving Safety Report Appendix*, GM, [https://www.gm.com/content/dam/company/docs/us/en/gmcom/2018%20Self-Driving%20Safety%20Report%20Appendix%20A\\_DIGITAL\\_180614b.pdf](https://www.gm.com/content/dam/company/docs/us/en/gmcom/2018%20Self-Driving%20Safety%20Report%20Appendix%20A_DIGITAL_180614b.pdf).

<sup>3</sup> 'Under the Hood' virtual event, Cruise video (November, 2021) <https://www.youtube.com/watch?v=uJWN0K26NxQ>.

<sup>4</sup> *Newly Released Estimates Show Traffic Fatalities Reached a 16-Year High in 2021*, NHTSA (May 17, 2022), <https://www.nhtsa.gov/press-releases/early-estimate-2021-traffic-fatalities>.

<sup>5</sup> *Global Status Report on Road Safety 2018*, WHO (June 17, 2018), [https://www.who.int/violence\\_injury\\_prevention/road\\_safety\\_status/2018/en/](https://www.who.int/violence_injury_prevention/road_safety_status/2018/en/).

<sup>6</sup> *Sources of Greenhouse Gas Emissions*, EPA, <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>.

<sup>7</sup> *GHG Current California Emission Inventory Data*, CARB, <https://www2.arb.ca.gov/ghg-inventory-data>.

<sup>8</sup> *Self-Driving Cars: The Impact on People with Disabilities*, Ruderman Family Foundation, [https://rudermanfoundation.org/white\\_papers/self-driving-cars-the-impact-on-people-with-disabilities/](https://rudermanfoundation.org/white_papers/self-driving-cars-the-impact-on-people-with-disabilities/).

<sup>9</sup> *Where Is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States*, National Bureau of Economic Research (Jan. 2014), <https://www.nber.org/papers/w19843.pdf>.



single-occupant vehicle. That is why Cruise is designing, developing, testing, and deploying autonomous vehicles that can provide both an alternative and a solution.

To further the objectives of safety, sustainability, accessibility and equity, Cruise has developed the Cruise Origin, an Autonomous Vehicle (AV), to continue scaling deployment of our self-driving service. The Cruise Origin is purpose-built as a self-driving vehicle at General Motors' Factory Zero manufacturing plant in Hamtramck, Michigan, employing a safety-by-design approach that provides critical system redundancy. Each Cruise Origin is designed with seamless hardware and software integration utilizing automotive grade technologies and processes, and crash tested extensively to ensure passenger safety.

Safety is Cruise's North Star. Cruise is developing and testing vehicles with advanced sensors that provide rich information about the world. We leverage the latest machine learning techniques and our tools to help our vehicles understand what's happening around them and what might happen in the future. We believe that AV technology is having a positive overall impact on automotive safety and public health and envision a future where that benefit is available to more communities. We work tirelessly toward this goal because we believe deeply in its promise and know its impact is measured in lives saved.

Additionally, because Cruise is committed to a clean, sustainable future for transportation, we utilize an all-electric AV fleet everywhere we operate and were the first self-driving company to power its vehicles with 100% renewable energy.<sup>10</sup> As a purpose-built fleet, we view our self-driving service as a way to expedite the electrification of transportation, which studies show will yield improved health outcomes.<sup>11</sup> Cruise customers need not worry about purchasing an electric vehicle nor about when or how to charge. In this way, Cruise AVs can dramatically increase access to clean, electric miles for those who may not be able to afford an EV, may not be in the market for a new vehicle, or like the millions of Americans that rent in our cities, not have access to chargers or the ability to install them.

Cruise believes AV technology has an historic opportunity to bridge gaps in transportation accessibility and equity that have existed for far too long. Cruise recognizes the significant benefits a self-driving service could have for seniors and people with disabilities, empowering greater independence and connection to community. Cruise actively partners with stakeholders within the accessibility community to understand the challenges faced within current transportation options and to co-design potential solutions with Cruise specialists. Cruise also recognizes that advances in transportation have not been inclusive in their beneficiaries, especially in lower socioeconomic and minority communities. Cruise is proud to be a part of Pledge 1%, utilizing at least one percent of our fleet for social good in perpetuity.<sup>12</sup> AVs developed by Cruise provide the opportunity to bridge the gap for individuals and organizations who otherwise would not have access to such advances in technology.

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<sup>10</sup> *Cruise Becomes First Self-Driving Company to Power Vehicles With 100% Renewable Energy*, Cruise Blog (Apr. 22, 2020),

<https://medium.com/cruise/cruise-becomes-first-self-driving-company-to-power-vehicles-with-100-renewable-energy-Y-3c7a7974590c>.

<sup>11</sup> *Zeroing in on Healthy Air*, American Lung Association (Apr. 2022)

<https://www.lung.org/clean-air/electric-vehicle-report>.

<sup>12</sup> *Cruise Joins the Pledge 1% Movement, Introducing Cruise for Good, Pledge 1% (April 23, 2021)*,

<https://pledgeitforward.today/cruise-joins-the-pledge-1-movement-introducing-cruise-for-good/>



Cruise is committed to designing a shared, all-electric, self-driving service to strengthen and connect communities and experiences. After years of careful testing, thoughtful development, and robust validation, Cruise is deploying fully driverless vehicles on public roads. As with our enduring commitment to safety in drivered testing and deployment, Cruise will conduct driverless deployment with the same level of care. We believe that our incremental approach will ensure that we are able to bring the benefits of this technology to the public as safely and efficiently as possible.

# Guide for Law Enforcement & First Responder Safe Interaction with the Cruise Origin Autonomous Vehicles

## Introduction:

Cruise's mission is to build the world's most advanced autonomous vehicles to safely connect people to the places, things, and experiences they care about.



At scale, self-driving technology holds the potential to save millions of lives, reshape our cities, reduce emissions, give back millions of hours of time and restore freedom of movement. At Cruise, we believe that the right way to build that future is side-by-side with the community, especially with our partners in law enforcement and public safety.

We regularly work with state and municipal public safety officers in San Francisco, from the California Highway Patrol to the San Francisco Police Department and beyond, and conduct training sessions with law enforcement





and first responders across the country in the localities where we test and operate. Through these training sessions, we provide law enforcement and first responders with the information they need to safely identify and interact with our Cruise Origin vehicles and iterate on the feedback provided to us.

This instructional guide builds on those engagements and is designed to equip public safety officials with the information they need to safely interact with the Cruise Origin in multiple scenarios. This guide covers the following important material:

## Table of Contents for Law Enforcement and First Responders Guide

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Cruise's goal is to develop autonomous vehicles that improve road safety, and we are committed to doing so in a way that supports the crucial work of public safety officials.

If you have additional non-urgent questions regarding the Cruise Origin not provided by this guide, please check out our dedicated first responders webpage – [www.getcruise.com/firstresponders](http://www.getcruise.com/firstresponders) – or contact [firstresponders@getcruise.com](mailto:firstresponders@getcruise.com). For all time sensitive inquiries, please call **888-662-7103**.

### Cruise key contacts

**Non-urgent:** [firstresponders@getcruise.com](mailto:firstresponders@getcruise.com)

**Time sensitive inquiries:** call 888-662-7103



## Section One: The Cruise Origin

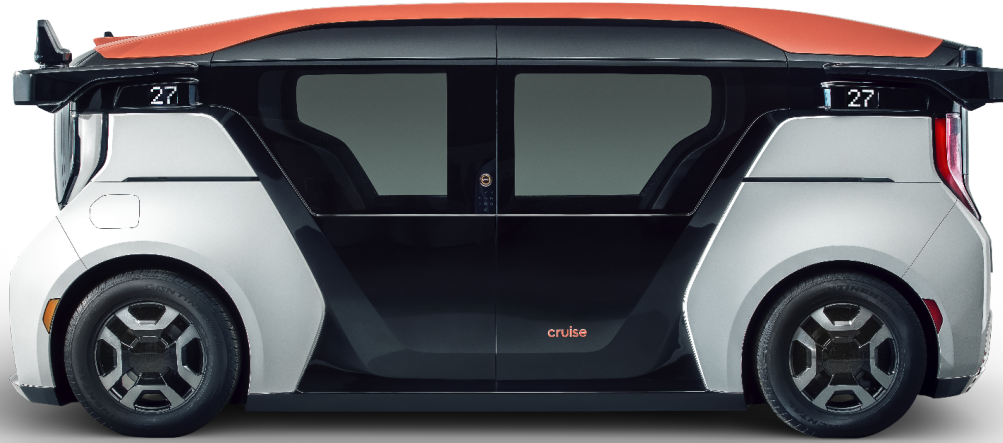


Image of a Cruise Origin self-driving, all-electric vehicle

Cruise use a fully integrated self-driving system incorporated into our purpose-built Origin vehicle, developed in partnership with General Motors (GM) and Honda, and manufactured by GM. The Cruise Origin is engineered to operate safely on its own – with no driver – within a defined operating environment and under a specific set of conditions. More information about those parameters can be found in the Operational Design Domain (ODD) section of this guide.

**At Cruise, it's every employee's job to make our product safe.  
Our first rule, always and everywhere, is safety first.**

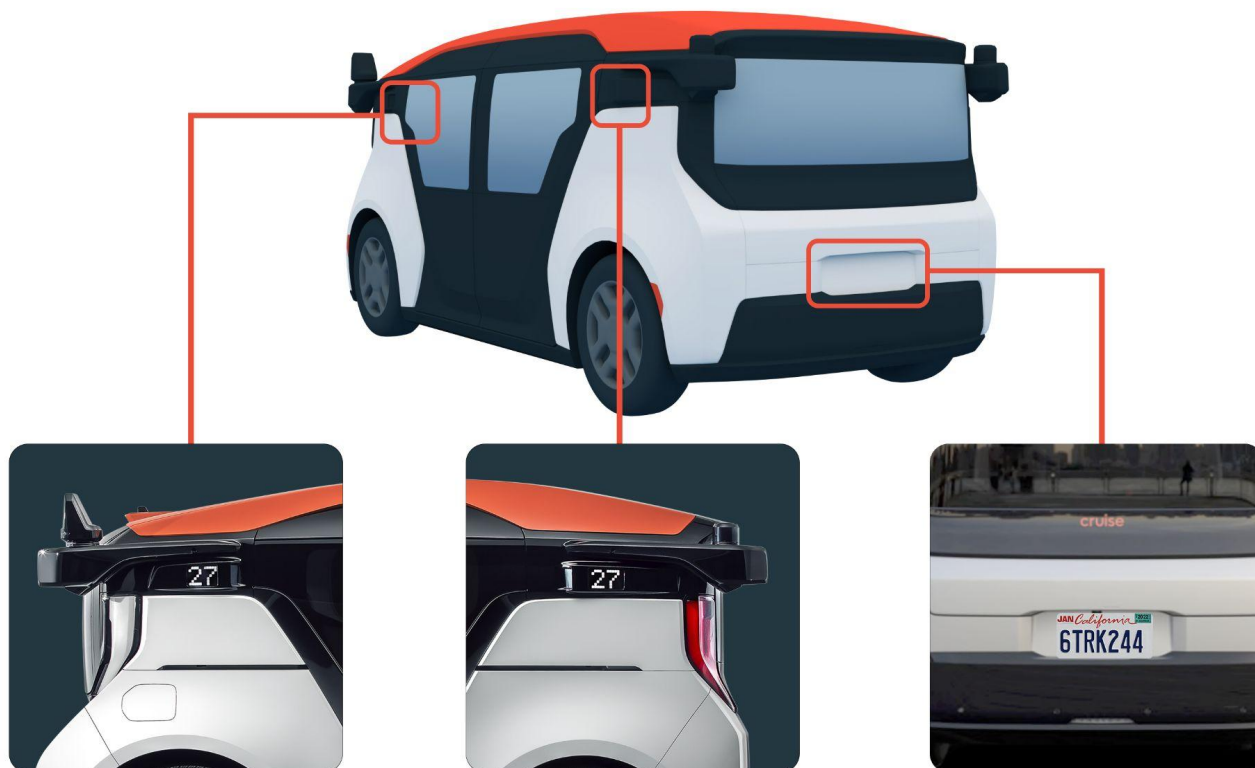
Cruise Origins are built at General Motors' (GM) Factory ZERO plant in Hamtramck, Michigan, which builds thousands of production vehicles every year. In concert with GM, we engineered safety into the vehicle from the ground-up, at every step of design, development, manufacturing, testing and validation. The Cruise Origin is designed with seamless hardware and software integration, built to automotive grade standards, and crash tested as other production vehicles. All suppliers who manufacture components for the Cruise Origin are required to make sure their quality meets our rigorous standards.

Our self-driving system is integrated into the vehicle from the beginning. Through close coordination between the hardware and software teams at both GM and Cruise, we have evaluated potential failure modes for all systems, addressed them throughout development to ensure a safe and reliable product and built redundancy into every element of critical system functioning.



## Identifying the Cruise Origin

Each Cruise Origin will have distinguishing features, including four external displays on the corners of the vehicle that can display up to 2 characters, static or animated, which users and law enforcement can use to identify vehicles in addition to the unique license plates.

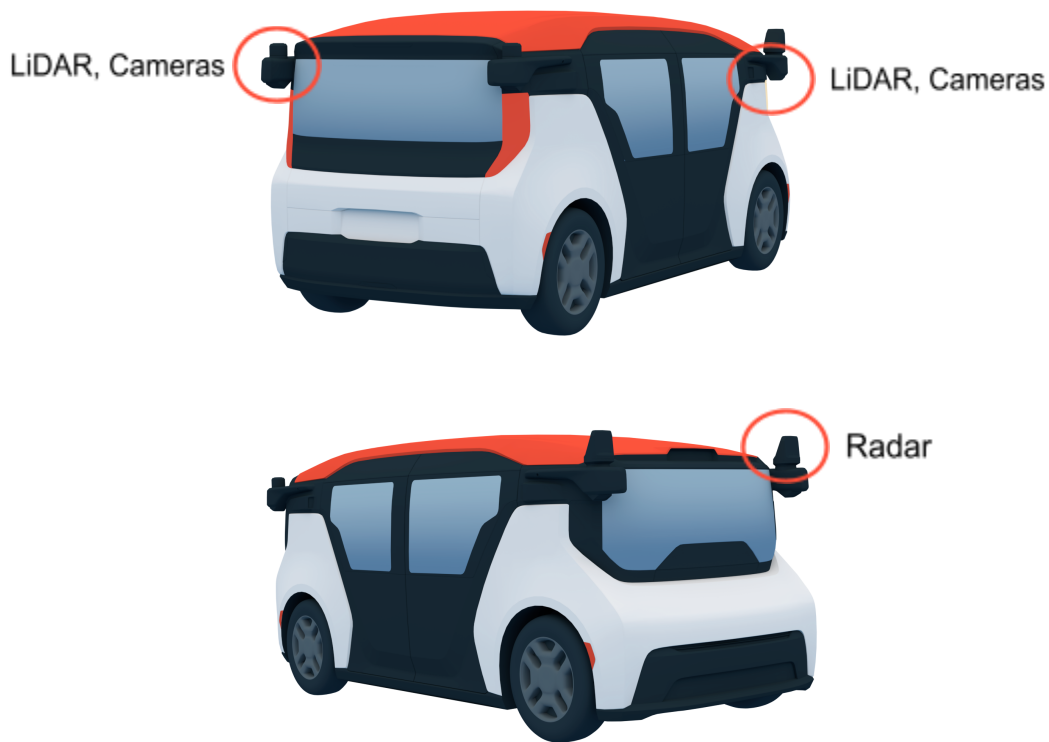


Location of the identifying information on Cruise Origin vehicles

A hallmark of the Cruise Origin is its hardware sensor suite customized for self-driving, some of which are visible on the exterior and others which are not. The array of external sensors enable the Cruise Origin to gather information about its environment and inform the system's driving decisions. Inside the Origin is a computer that comprises the "brain" of the system. The computer, and its redundant back up, will not be visible or accessible to passengers on their trip. The autonomous technology works by rapidly synthesizing information collected by the sensor suite to inform driving behavior through perception (understanding the environment), prediction and planning (evaluating possible safe paths or trajectories for the vehicle given the environment), and controls (the driving maneuver). More information about how the Cruise Origin system works and is designed to be a safe driver is available in the Cruise Safety Report [here](https://www.gm.com/content/dam/company/docs/us/en/gmcom/gmsafetyreport.pdf) and in our *Under the Hood* presentation.<sup>13,14</sup>

<sup>13</sup> 2018 Self-driving Safety Report, GM,  
<https://www.gm.com/content/dam/company/docs/us/en/gmcom/gmsafetyreport.pdf>.

<sup>14</sup> 'Under the Hood' virtual event, Cruise video (November, 2021)  
<https://www.youtube.com/watch?v=uJWNOK26NxQ>.



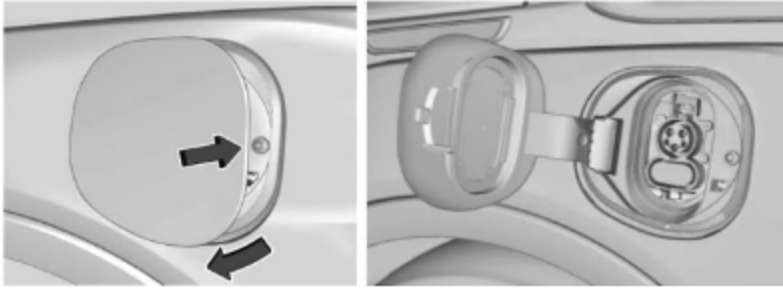
Location of the Cruise hardware sensor suite. Actual sensor locations subject to change.  
Image above is not meant to be a comprehensive list of sensors in the Cruise Origin suite.

## Inside the Cruise Origin

The Cruise Origin is purpose-built, designed to be fully autonomous, and does not have human-centered driving equipment, so public safety officials might encounter the vehicle with no one inside the cabin.

## Vehicle Identification Information

Each Cruise Origin is equipped with documentation that includes the vehicle registration, owner information, proof of insurance and AV testing permit and can be found inside the charge port door. Location of the charge port door and instructions for how to open it are included below.



Push the rearward edge of charge port door and release to open the door



Location of charge port door on a Cruise Origin

## Section Two: Communicating with the Cruise Team

The Cruise escalation team brings comprehensive experience from relevant industries, such as transportation, technology, aerospace, defense and public safety. Our response procedures were designed, tested and vetted by former members of the law enforcement and first responder communities who applied best practices to ensure we can properly support and interact with law enforcement and first responders.

### Contacting Cruise

To reach the appropriate Cruise contact, police officers and first responders should call Cruise's critical response line **888-662-7103**. Cruise's critical response line is staffed by an escalation team that is ready to respond to emergency and non-emergency events and inquiries. To ensure the high availability and resiliency of this phone number, Cruise hosts the critical response line on a verified third party platform that also serves other safety-critical services. There is a redundant cellular connection between Cruise Incident Experts and the Cruise vehicle for all AV functionality and tracking that can make use of any of three cellular networks.

Once connected with Cruise, first responders will be asked to provide the following information:

- Reason for your call
- Vehicle identification information (including the data shown on the external displays on the corners of the vehicle or the unique license plate information)
- Geographic location information

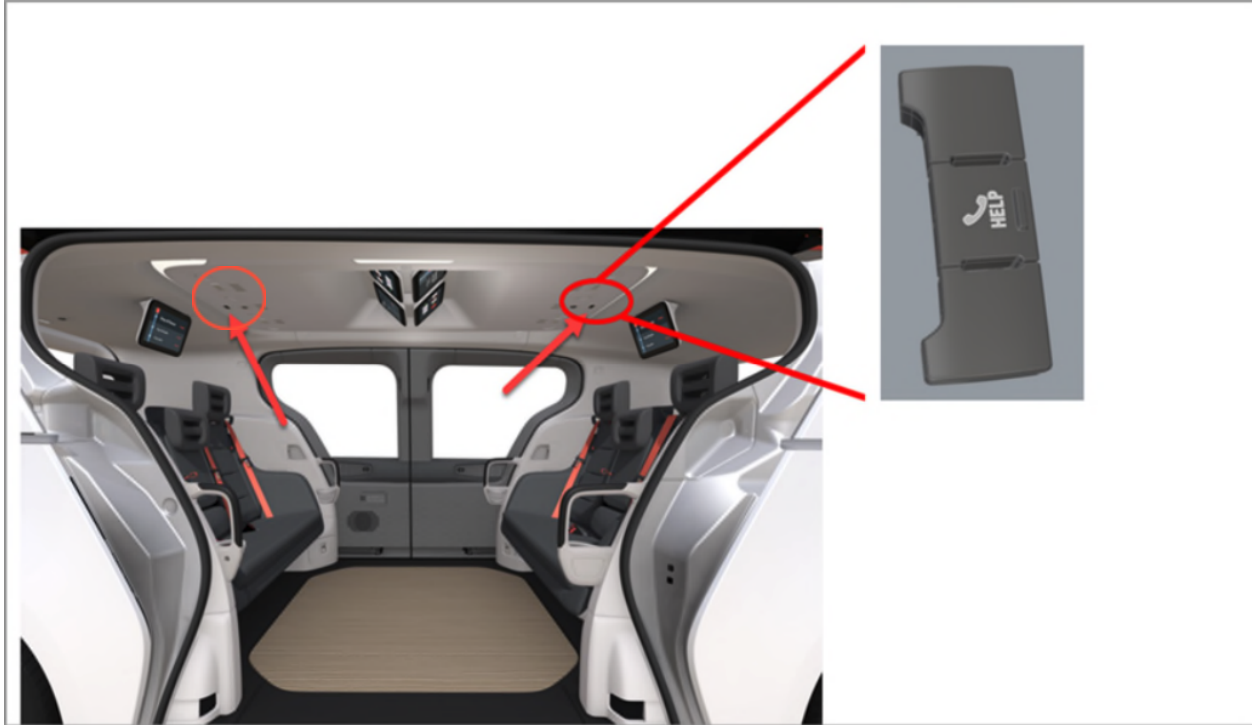
In addition to Cruise's critical response line, each Cruise Origin is equipped with a two-way audio communications link inside the vehicle that can be used for direct conversations with the appropriate remote team member depending on the situation. The communications link is accessed using one of the clearly marked help buttons inside the vehicle. These buttons appear above both the front-facing and rear-facing bench seats inside each vehicle.

If the communication link is accessed for an emergency, trained specialists from Cruise will be available to assist. Cruise response time from the two-way communications link is within seconds.

In the event of a collision, Cruise will respond within seconds whether or not a two-way communication button is pressed by the passenger. Cruise is alerted to potential incidents by both automated and human review processes monitoring the vehicle at all times.

To ensure the best support possible, we advise that public safety officials call the Cruise critical response line at **888-662-7103** rather than using in-car buttons designed for occupants.





Location of customer-accessible 'Help' buttons facing each set of seats in the Cruise Origin

## Cruise Incident Experts

When police officers and first responders call the Cruise critical response line, they have the option to connect with Cruise team members who are specially trained to actively monitor signals from the AV that indicate it may need assistance and can assist with technical issues related to the vehicle in non-emergency and emergency situations. For example, this team can facilitate unlocking the vehicle, confirm operating status, disengage the Cruise Origin from autonomous driving mode and ensure that it remains in a safe, stationary position. Incident experts are also trained to communicate with passengers and third parties during emergency situations.

Law enforcement and first responders can contact Cruise Incident Experts by calling Cruise's critical response line: **888-662-7103**.

## OnStar Emergency Assistance

Every Cruise Origin is also equipped with OnStar functionality. For more than 20 years, OnStar has offered peace of mind with the push of a button, and inside the Cruise Origin, there is a red SOS button that enables a two-way communication link that connects to an OnStar Emergency Advisor.

OnStar Emergency Advisors are available 24/7 to respond to medical emergency scenarios and can provide information to first responders before they arrive on the scene of an emergency. In addition, the Automatic Crash Response service can connect a trained Emergency Advisor to the Cruise Origin even in the event of an incident where an occupant may be unable to press the physical OnStar button.

## Section Three: Incidents & Emergency Scenarios

The Cruise Origin is designed to be capable of identifying and responding to emergency and law enforcement vehicles, including having the capacity to safely yield to an emergency vehicle with lights and sirens activated. Due to its design, the Cruise Origin can identify emergency vehicles, including their lights and sirens. Cruise has conducted ongoing emergency vehicle identification and response testing in San Francisco to ensure that Cruise Origins behave properly around emergency vehicles.

In this section, we provide guidance for first responders on how to safely interact with the Cruise Origin on the scene of an incident or emergency scenario. As a precaution and when circumstances allow, we ask responders to call Cruise's critical response line **888-662-7103** to reach Cruise's Incident Expert team before interacting with the vehicle and for additional information and support.

### Responding to Non-Emergency Incidents

For a non-emergency event or incident, please call Cruise's critical response line **888-662-7103** where you will have the option to connect with a Cruise Incident Expert. Our Incident Experts are available for relevant questions during driverless testing and can provide support in emergency situations. Please contact them before approaching and interacting with the Cruise Origin. If you have additional non-urgent questions regarding the Cruise Origin not provided by this guide, please check out our page – [www.getcruise.com/firstresponders](http://www.getcruise.com/firstresponders) – or contact [firstresponders@getcruise.com](mailto:firstresponders@getcruise.com).

### Responding to an Emergency

Cruise Incident Experts are available 24/7 to receive help requests from the Cruise Origin - either from a passenger who pressed the help button inside the Origin or automatically through the Automatic Crash Response system. In addition, Incident Experts actively stand by to immediately respond to notifications from the Origin that it may be in need of assistance.

In the event of an emergency, Cruise teams are highly trained and are available to provide support to passengers over the two-way audio communications link into the vehicle and to concurrently work with first responders as necessary to prioritize safety of passengers and to maximize efficiency and response times.

Cruise's Incident Experts are available on-demand to our passengers for immediate assistance and our team is highly trained to be responsive to a broad range of scenarios including medical emergencies. In addition, Cruise can communicate to passengers in real time via the two-way audio communications link or via call and can further escalate to public safety and first responders as necessary.

Upon arriving at the scene, we recommend that first responders contact Cruise's critical response line by calling **888-662-7103** when possible before approaching or interacting with the Cruise Origin.

In the event of any situation that prevents an Origin from continuing autonomously, Cruise will dispatch a Field Support team to respond to the Origin on-site and can provide in-person support depending on the scenario.

## Approaching the Origin - When an Field Service Representative is Present

It is a priority in our training program for Field Service Representatives to educate our trainees how they should respond to a range of potential incidents including severe situations. They are instructed on how to interact with first responders. If an emergency arises and Field Service Representatives are present, the Field Service Representative can ensure the following:

1. Ensure the vehicle's self-driving mode is disabled
2. Ensure the vehicle remains immobilized
3. Provide vehicle registration, insurance, and identification upon request
4. Give instructions for towing, if required

## Approaching the Origin - When no Cruise employee is present

If incident or emergency arises, and there are no Cruise incident experts or Field Service Representatives already present or able to serve as a resource, first responders should:

1. Call the number **888-662-7103** to be connected to a Cruise Incident Expert and follow the verbal instructions from the Expert on how to approach the Cruise Origin
2. Receive information from the Cruise Incident Expert pertaining to current status of the Origin
3. Continue to follow instruction from the Cruise Incident Expert on how to safely interact with the Cruise Origin as necessary

Please note that in the event of an incident or emergency situation, the Cruise Origin will achieve a minimal risk condition and come to a stop.

## Determining Autonomous Mode

The Cruise system is designed to appropriately and safely respond to its surroundings. Although we recommend connecting with a Cruise Incident Expert before taking any action, the Cruise Origin will interact safely with anyone approaching the vehicle. After being connected with the Cruise team and approaching the Cruise Origin, Cruise experts can inform the law enforcement official or first responder whether or not the vehicle is in autonomous mode. Screens in the vehicle should be displaying an information screen, showing that the vehicle is not in autonomous mode and directing first responders to contact Cruise. Cruise can confirm this information.

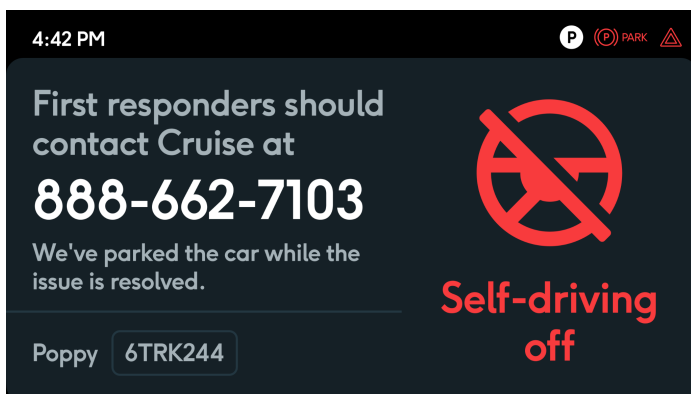


Image of the types of information shown on Cruise Origin display screens in first responder situations. Specific language and design aspects are subject to change.



## Disengaging From Autonomous Mode

Our Incident Experts are always available to support first responders and safely guide them through the process of interacting with a Cruise Origin. Please contact them before making any attempts to move the vehicle.

## Towing

Cruise representatives will be dispatched in the event of a disabled Origin and will facilitate vehicle retrieval, including towing if required. If needed, via contact information provided in the Law Enforcement Interaction Plan, Cruise can remotely instruct emergency responders on interaction with the Origin. In exigent circumstances, the Cruise Origin can be towed on a flatbed using standard wheel dollies on rear wheels. Tow-eye sockets are accessible in the front and rear bumper fascias.

## Pushing

First responders should call Cruise's critical response line **888-662-7103** and Cruise will initiate vehicle retrieval. In the event of any situation that prevents an Origin from continuing autonomously, Cruise will dispatch a Field Support team to respond to the Origin on-site and can provide in-person support.

## Providing Emergency Assistance for Electric Vehicles

Cruise is proud that all of our Origins are all-electric and operate on the pioneering Ultium battery platform. GM has communicated with a range of first responder and public safety organizations on the Ultium battery platform and how to interact with GM-manufactured electric vehicles. There are a few specific safety instructions that first responders should know when responding to a situation involving an EV; however, all standard operating procedures (size-up, approach, immobilize, extinguish) for first responders still apply. There are no increased risks if the vehicle is on fire or immersed in water.

More information can be found at [GM First Responder Guides](#) and the [Electric Vehicle Safety for Emergency Responders Online Training](#).



## High Voltage and Airbag Disconnect Procedures

To disconnect the high voltage battery and airbags, open the hood and follow the [Cruise Origin First Responder Quick Reference Guide](#). Cutting the first responder label shown below or both 12V battery ground cables will remove all power.

### Cruise AV First Responder Quick Reference

**First action is always to contact Cruise at 888-662-7103**



**Call 888-662-7103 before interacting with the vehicle and provide:**

- Reason for your call
- Vehicle ID
- Geographic location



**An incident expert will receive the call and can:**

- Connect to the AV and disengage it
- Unlock doors to provide AV cabin access
- Provide status information about the AV
- Share field support representative ETA

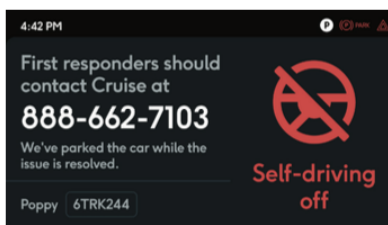


**Look for the first responder display** →

- Located on in-car tablets - if visible, it means:
  - AV is disengaged and safe for approach
  - **Field support representative is on the way**

If you do NOT see display: call 888-662-7103

**Cruise AV ID can be found on:**  
The top corners of the vehicle



### High voltage & airbag disconnect procedure - **do not cut any orange high voltage cables**

**1**

#### Open the Rear Liftgate

Use the touchpad above the license plate or manually actuate the latch to the right of the plate



**2**

#### Remove the Access Cover

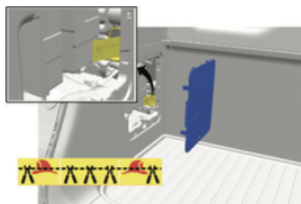
Located on the left side of the compartment.



**3**

#### Double Cut the Low-Voltage Cable

Cut on both sides of the yellow tape.



**4**

#### Remove the Cut Cable Section

This will disable the airbags and high voltage. Wait at least 10 seconds for airbag reserve energy to dissipate and at least 1 minute for high-voltage energy to discharge.

## Section Four: Frequently Asked Questions

### Will contact information be available in each vehicle?

Each Cruise Origin is equipped with documentation that includes the vehicle registration, owner information, proof of insurance and AV testing permit and can be found inside the charge port door.

### Will there be a 24-hour contact line for first responders?

Yes. Law enforcement officers and first responders can reach Cruise by calling our critical response line:

**888-662-7103**. This line is staffed by Cruise team members to handle incidents and emergencies. It is also the best line of communication to reach Cruise before interacting with the Origin. If you have additional non-urgent questions regarding the Cruise Origin not provided by this guide, please check out our page –

[www.getcruise.com/firstresponders](http://www.getcruise.com/firstresponders) – or contact [firstresponders@getcruise.com](mailto:firstresponders@getcruise.com).

### If there is an emergency on-board the vehicle, can the vehicle notify the police or medical rescue remotely?

Yes. Through its Automatic Crash Response service or passenger-initiated help request, trained Cruise Incident Experts can connect with passengers inside the Origin.

### Does the vehicle have additional safety shutdown procedures to make sure the vehicle doesn't drive itself away while first responders are on the scene?

In the event of an incident or emergency, the Cruise Origin will achieve a minimal risk condition and come to a stop. In addition, the Cruise team monitors the fleet at all times during testing and can confirm the mode of the Cruise Origin. The team can bring the Origin to a stop, disengage the Origin from autonomous mode, and immobilize the vehicle. Please call Cruise's critical response line to speak to the Cruise team before approaching or interacting with the Origin.

### How can first responders gain access to the interior of the Origin?

To gain access, please call the Cruise team at **888-662-7103**. This team can facilitate first responders gaining access to the interior of the Cruise Origin.

### What is the stolen vehicle protocol?

Should you suspect unauthorized use of a Cruise vehicle, please contact **888-662-7103** immediately. Cruise's team is specially trained to actively stand by and immediately respond to notifications from the Origin that it may be in need of assistance at all times.

### How do you confirm that the vehicle is not in autonomous mode?

Our team can confirm the mode of the vehicle and can disengage the vehicle from autonomous mode.

After being connected with the Cruise team and approaching the Cruise Origin, Cruise experts can inform the law enforcement official or first responder whether or not the vehicle is in autonomous mode.

### Are there additional power lines or cables we need to be concerned with like in hybrids or EVs that may present a safety issue when cutting into the vehicle?

All high voltage cables are indicated by an orange color and are also found in the First Responder High Voltage & Airbag Disconnect Procedure. Orange cables should be treated as if they are powered - do not cut.

## **Are there additional power sources for the vehicle computer and electronics beyond the standard vehicle battery system?**

In addition to the high voltage battery, GM Ultium-platform batteries power the Cruise Origin vehicles. When engaging with the 12V lines, follow the procedure outlined above to disconnect power to the airbags and from the high voltage battery. Orange cables should be treated as if they are powered - do not cut these lines.

## **Are there any flammable liquids that must be accounted for? Unique flammability concerns with the Origin vehicle?**

The Origin poses no unique flammability concerns. As described in [NFPA standards](#), copious amounts of water should be used to help cool and extinguish in case of battery fire. A battery fire may require more water, for a longer period of time, than a conventional vehicle.

## **Where is the vehicle's HV battery, how many volts does it have, and should it be shut off?**

Similar to other electric vehicles, the Cruise Origin has a HV battery located in the center of the vehicle, under the passenger compartment as indicated in the First Responder High Voltage & Airbag Disconnect Procedure. Battery voltage is 350V.

Please note that the manual service disconnect for the HV battery is designed for vehicle repair situations or in preparation for vehicle disposal, and not roadside incidents or emergency situations. For incidents and emergencies, first responders should cut the 12V lines found under the hood and/or in the hatch to remove power from airbags and the HV battery.

## **How are the vehicle's sensors impacted by weather?**

The Cruise Origin is designed and built to properly recognize and respond to changing weather conditions. When the Cruise Origin detects changes in weather conditions that are outside of its operational design domain, it will achieve minimal risk condition. For weather conditions within its operational design domain, the Origin may adjust its behavior accordingly; including responding to slower traffic in light rain.

The Cruise Origin does not operate outside our operational design domain (ODD), which means that the Cruise Origin will not drive in weather that falls outside of the ODD. Cruise operators are standing by to immediately respond to notifications from the vehicle to help ensure each Cruise Origin remains within our ODD.