DRIVE PILOT First Responder Interaction Plan

Mercedes-Benz

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Introduction

This guide is intended to be used by first responders and law enforcement officials who encounter a Mercedes-Benz vehicle equipped with DRIVE PILOT in an emergency or non-emergency situation.

With DRIVE PILOT, Mercedes-Benz envisions a future with fewer traffic accidents, less stress and greater enjoyment and productivity for drivers. DRIVE PILOT is a conditionally automated driving system (SAE J3016 Level 3)[1] available as an option in the Mercedes-Benz S-Class and EQS Sedans.

DRIVE PILOT is only available under certain conditions, and when they have all been met, drivers can choose to engage DRIVE PILOT through the dedicated controls on the steering wheel. A person who is fit to drive must be in the driver's seat at all times.

When DRIVE PILOT is engaged, the driver becomes the "fallback-ready user," who must remain ready to take control of the vehicle when prompted by the system. When DRIVE PILOT is active, the fallback-ready user can remove their hands from the steering wheel, take their eyes off the road and turn their attention to other activities in the vehicle. When the fallback-ready user regains control of the vehicle, they become responsible for the driving task again.

Mercedes-Benz vehicles equipped with DRIVE PILOT must always be driven manually to and from the Operational Design Domain (ODD). DRIVE PILOT can only be engaged on major highways in California and Nevada when the road and weather conditions are suitable.

The vehicle's operator is always responsible for producing valid documents (driver’s license, registration, insurance) in compliance with a law enforcement officer’s request.

We would like to expressly state that this First Responder Interaction Plan should not, nor is intended to constitute a replacement for proper training and relevant technical literature under any circumstances.

Vehicles shown in pictures may be European spec models which have no influence on the satisfaction of requirements listed in the California Vehicle Code §38750 (c) (1) and may show additional equipment.

Production vehicles will not have “DRIVE PILOT inside” graphics on the exterior.

[1] J3016 - Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles (April 2021)

Operational Design Domain and Conditions

The “Operational Design Domain” (ODD) refers to the geographical boundaries and conditions under which DRIVE PILOT is designed to operate. DRIVE PILOT is only functional in environments and situations that are safe for the fallback-ready user and other road travelers. The ODD comprises all the operating conditions (road type, location, road features, traffic conditions, weather, etc.) that are suitable for engaging DRIVE PILOT. Outside of the ODD DRIVE PILOT cannot be engaged, even if the driver tries to activate it.

DRIVE PILOT is designed for:

- Driving on pre-approved California and Nevada highways with structural separation or sufficient separation between travel dirrections and at least two lanes of traffic in each direction. The road should also not have traffic control devices (i.e., stop signs, traffic lights, intersections, etc.) or at-grade crossings.
- Moderate to heavy traffic jam situations where the vehicle maintains a speed of 40 miles per hour or less.
- Daytime and sufficient weather conditions. DRIVE PILOT is unavailable in inclement weather conditions such as when heavy rain, low temperatures or heavy fog are present.

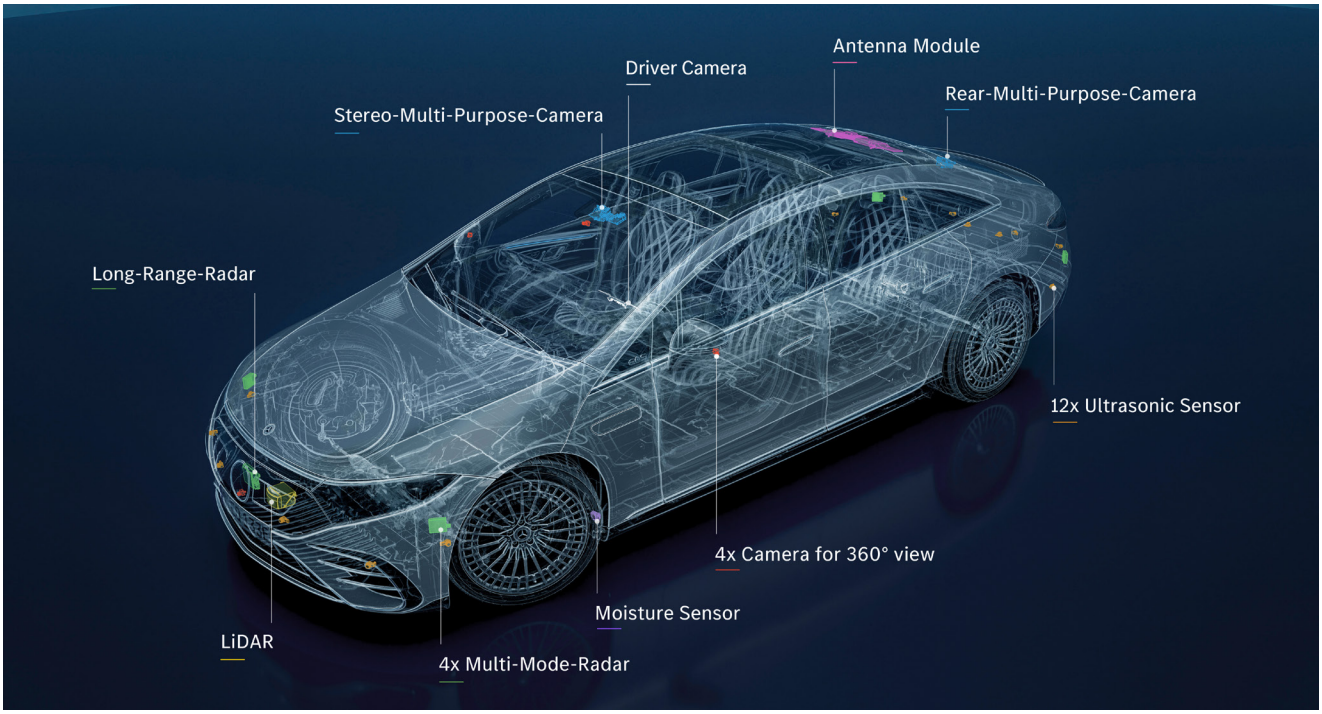
Identifying DRIVE PILOT-Equipped Vehicles

S-Class Sedan

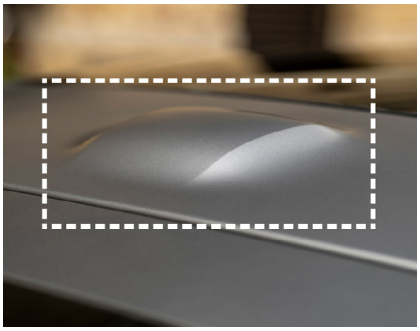
EQS Sedan

DRIVE PILOT-equipped vehicles are limited to only the Mercedes-Benz S-Class and EQS Sedans and their Mercedes-AMG and Mercedes-Maybach variants. Deviations in their exterior or interior design elements have no influence on the operation of the system. DRIVE PILOT is an optional feature and therefore not every Mercedes-Benz S-Class and EQS Sedan is equipped with DRIVE PILOT.

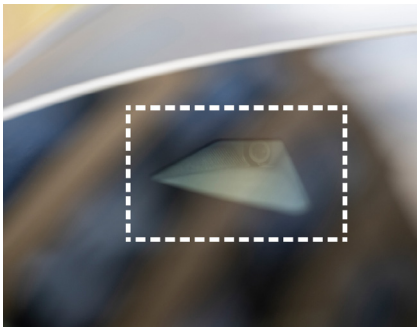
DRIVE PILOT Vehicle Exterior Features



LiDAR located on front fascia



Antenna module bump located between the rear windscreen and the sunroof



Camera located on rear windshield

An S-Class or EQS Sedan equipped with DRIVE PILOT can be clearly identified by the following features:

- LiDAR sensor located near the center line of the vehicle's front fascia
- Antenna module bump located between the rear windscreen and the sunroof
- Camera located in the upper left corner of the rear windshield

Note: The example above is of an EQS Sedan. Identifying features are located in similar positions on the S-Class.

DRIVE PILOT Vehicle Interior Features

S-Class Sedan Interior

EQS Sedan Interior

A vehicle equipped with DRIVE PILOT can be identified by the following distinct steering wheel features:

- Additional buttons on both the left and right sides of the steering wheel
- A turquoise light that is illuminated on the steering wheel controls and a light bar on top of the steering column when DRIVE PILOT is active*

*DRIVE PILOT indicator lights can be seen from the vehicle's exterior by looking through the windows.

Deactivating DRIVE PILOT

During normal operation, DRIVE PILOT can be deactivated by first responders or law enforcement vehicles by activating emergency lights and sirens in the vicinity of the vehicle. This will cause the forward and rearward cameras and interior microphones to detect the flashing lights and sirens and issue a takeover request. A Takeover request is a visual audible and haptic alert to the fallback-ready user to take over the driving task.

Unresponsive Fallback-Ready User Stop Procedure

- After the 10-second takeover request period, the vehicle will begin slowing to a standstill in the current driving lane while activating the hazard warning lights.
- Once stopped, DRIVE PILOT will be deactivated, the parking brake will be engaged, the doors will be unlocked and an automatic call to emergency services will be placed.
- After the stop procedure, DRIVE PILOT cannot be reactivated until the vehicle has been restarted and manually driven for a suitable distance.

Ensuring DRIVE PILOT has Been Deactivated

- DRIVE PILOT is deactivated when the steering wheel lights are off or glow red.

Additionally, DRIVE PILOT cannot be engaged if:

- The driver's side door is open
- The hood or trunk is open
- The mirrors are folded
- The ignition has been turned off by using the start/stop button
- A collision severe enough for airbag deployment has occurred
- The driver's seatbelt is unbuckled

Frequently Asked Questions

Where can I find more information on DRIVE PILOT?
More information is available in the First Responder Interaction Plan or on mbusa.com.

Who can I contact with further questions?
Our Customer Assistance Center is ready to answer your questions at (800) 367-6372.

How does DRIVE PILOT keep me safe as a first responder?
DRIVE PILOT always drives cautiously and takes extra precaution upon detection of emergency signals and/or pedestrians. When such situations are detected, the driver is asked to take over control - until they do, DRIVE PILOT reduces its speed and creates a larger gap or lateral offset.

What sensors does DRIVE PILOT use?
The system uses a combination of radar, LiDAR, camera, microphone, ultrasonic, light, and moisture sensors to monitor the outside environment and compares that to the high-definition map. DRIVE PILOT also uses cabin HMI elements and a stereo-infrared driver camera to assess the receptivity of the person behind the steering wheel.

What other conditions restrict where DRIVE PILOT operates?
DRIVE PILOT's Operational Design Domain is further restricted by conditions like low light, road work, reduced visibility, vehicle damage, lane marking conditions, and infrastructure conditions like lane closures, tunnels, and freeway endings.

Which states is DRIVE PILOT available in?
Currently, DRIVE PILOT is available in California and Nevada.

How can additional information be accessed after a crash or for law enforcement purposes?
DRIVE PILOT is equipped with a data logger (ADS EDR), which is readable by a commercially available tool or by authorized workshops.

Data stored on the ADS EDR is owned by the vehicle owner and proper access rights must be obtained. Additionally, changes to the activation state of DRIVE PILOT are stored separately and requestable by the vehicle owner or with a legal order.

Accessing Rescue Sheets

Rescue QR Code Location
B-Pillar, on the opposite side of the fuel/EV socket flap

Rescue QR Code Location
Fuel Filler Flap

Rescue QR Code Location
EV Socket Flap

Mercedes-Benz has developed a rescue sticker with a QR code for quick access to rescue sheets in emergency situations. Vehicle-specific rescue sheets can be accessed by scanning the QR code attached to the vehicle. Rescue stickers are attached to the inside of the fuel filler flap (for EVs in the socket flap) and on the opposite side on the B-Pillar of the vehicle. Vehicles with DRIVE PILOT do not require any different handling during the rescue phase. Emergency response personnel will find the corresponding rescue sheets by scanning the QR code.

Rescue Sheets for DRIVE PILOT Vehicles

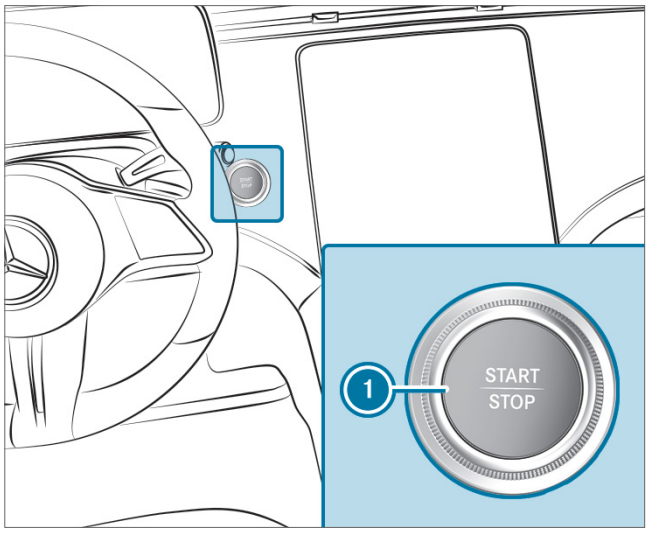
- S-Class
- EQS Sedan

For more information, please see the Mercedes-Benz guidelines for rescue personnel cars, vans and off-road vehicles in accordance with ISO standard 17840-3.

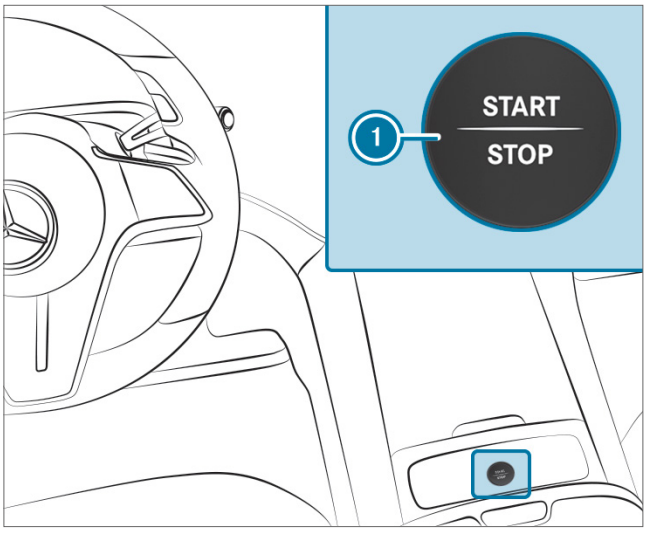
Immobilizing a DRIVE PILOT Vehicle

Turning the vehicle off

To turn off the vehicle, press the ignition button located in the position shown below.

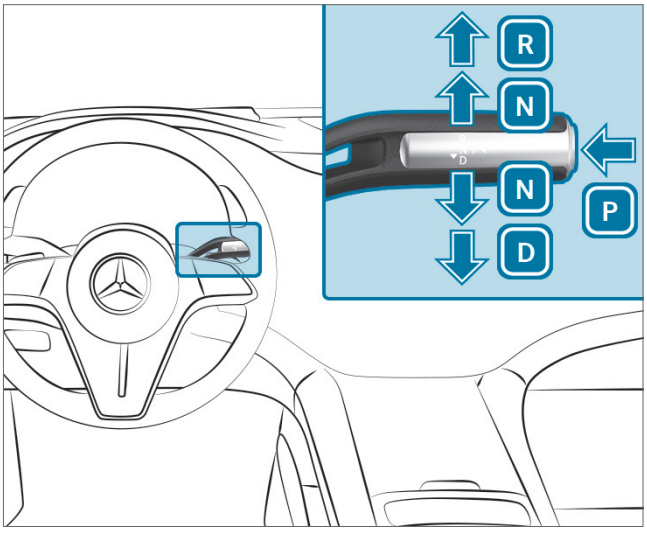


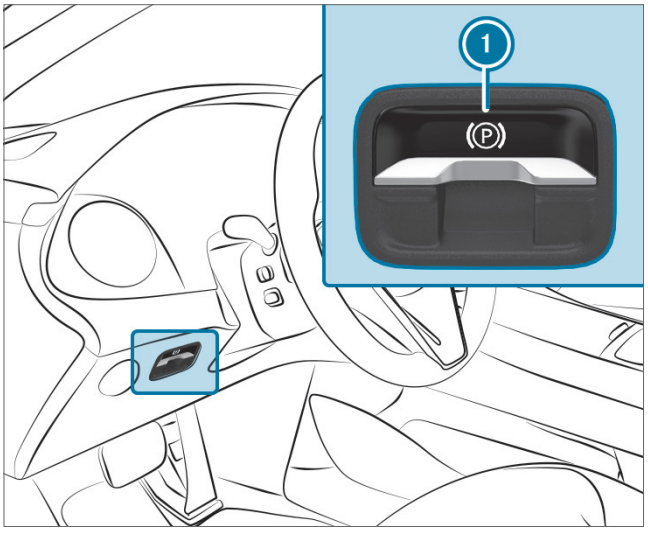
S-Class and EQS Sedan (without large central display)



EQS Sedan equipped with large central display

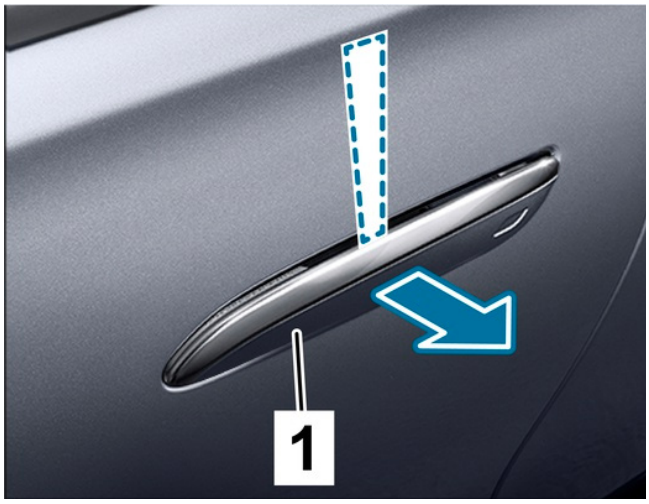
Shift controls and parking brake



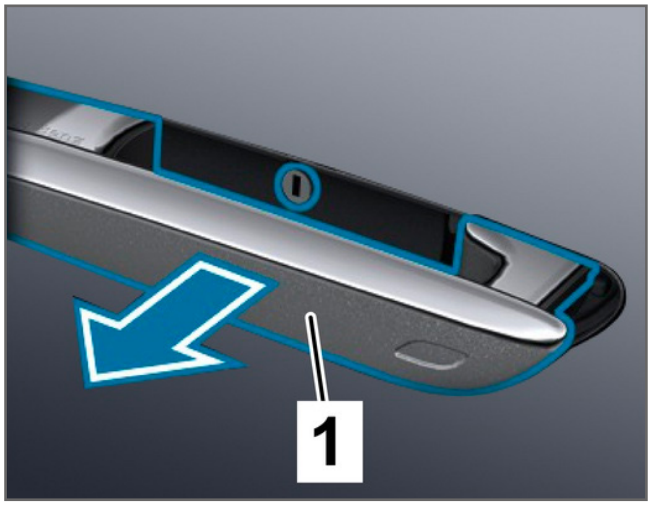


Vehicle Occupant Access

Door Handle Access

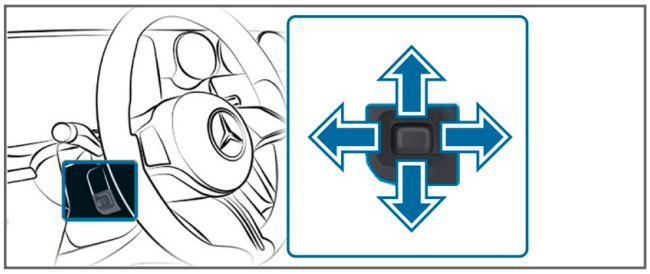


Slide a flat, non-metallic object behind the retracted door handle (1) from above and lever it slightly out.

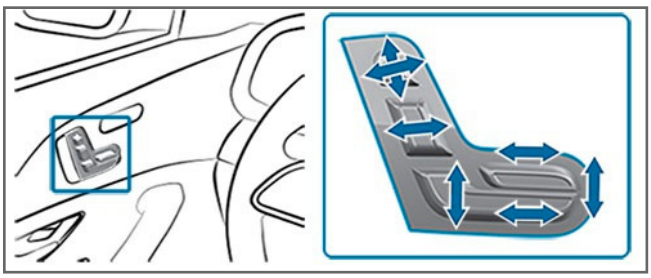


Reach behind the door handle (1) from below and pull it out until you feel resistance, then hold.

Steering Wheel and Seat Adjustments



Steering wheel adjustment

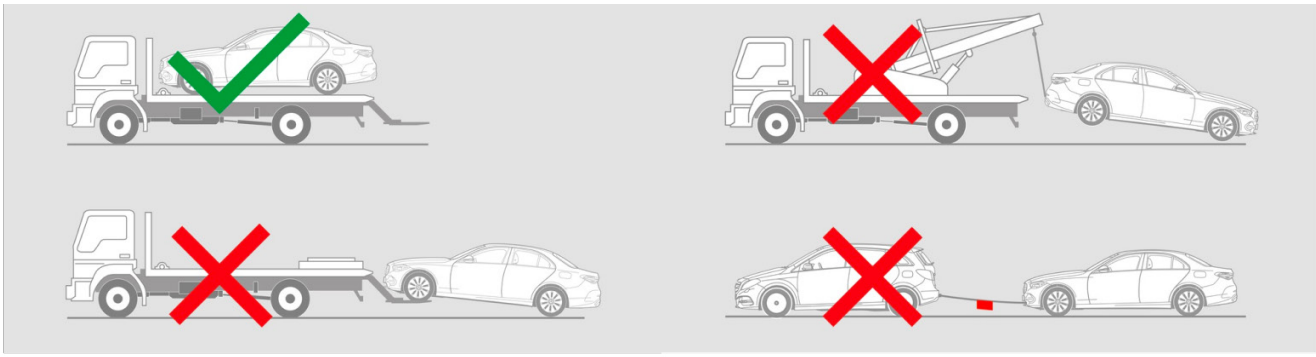


Seat adjustment (electric)

Glass Entry Points

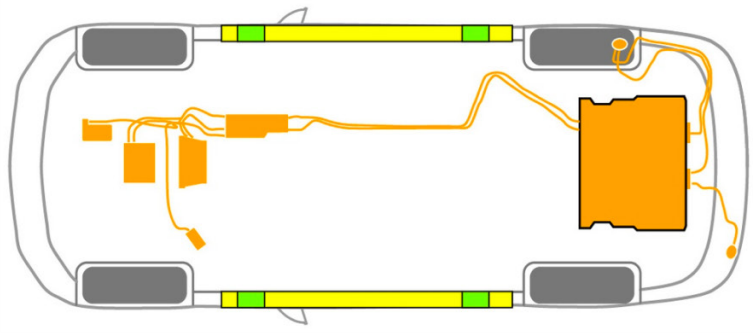
All S-Class vehicles have laminated safety glass on the front, rear and side windows.
On the EQS Sedan laminated safety glass can be optionally installed on the front, rear and side windows.

Removing the Vehicle from the Road



Warning: Battery re-ignition

- Only transport the vehicle with both axles on a tow truck or car transporter.
- Maintain a safe distance from other vehicles.



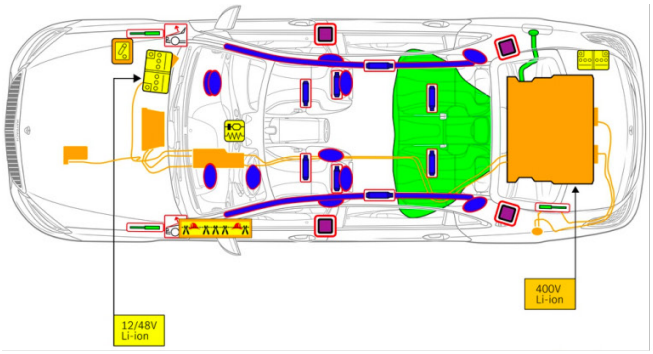
Additional deformation of the door sills and the underbody (e.g. through support with hydraulic equipment) must be avoided during the rescue.

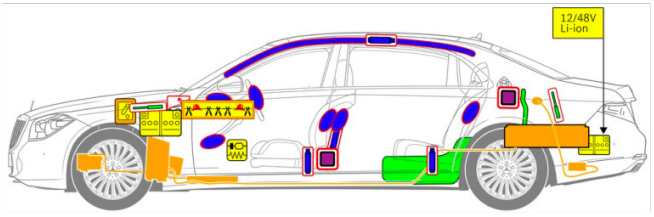
Please refer to the Operator's Manual for the correct way to tow the vehicle from the roadway.

Note: High-voltage battery is located in a different location on the EQS Sedan but lifting and stabilization points are in the same locations.

Mercedes-Benz S-Class
With optional Plug-In Hybrid System

High-Voltage Electric Power (System Overview)





Legend

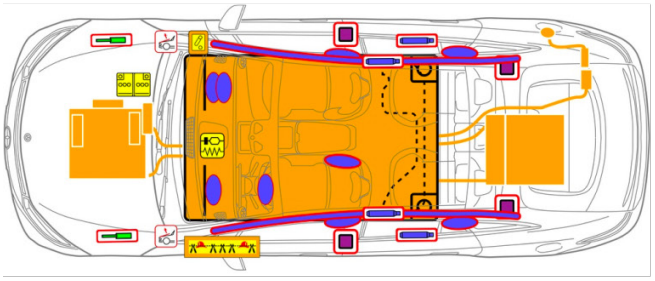
- Airbag
- Gas generator
- Seat belt pretensioner
- SRS control unit
- Active pedestrian protection system
- Automatic roll-over protection system
- Gas strut / Preloaded spring
- High strength zone
- Warning zone
- Low-voltage battery (Li-ion battery)
- Low-voltage capacitor
- Fuel tank
- Gas tank
- Safety valve
- High-voltage battery (Li-ion battery)
- High-voltage cable / component
- High-voltage fuse
- High-voltage capacitor
- High voltage device that disconnects high voltage
- High-voltage cable / component
- Low voltage device that disconnects high voltage

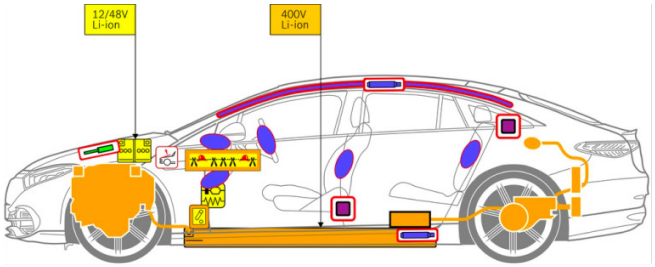
The S-Class High-Voltage system includes:

- High-Voltage (HV) Battery behind the floor of the trunk
- One (1) High-Voltage disconnect device located under the front hood
- Two (2) alternative high voltage disconnect devices (HV wire cut)

Mercedes-Benz EQS Sedan

High-Voltage Electric Power (System Overview)





Legend

- Airbag
- Gas generator
- Seat belt pretensioner
- SRS control unit
- Active pedestrian protection system
- Automatic roll-over protection system
- Gas strut / Preloaded spring
- High strength zone
- Warning zone
- Low-voltage battery (Li-ion battery)
- Low-voltage capacitor
- Fuel tank
- Gas tank
- Safety valve
- High-voltage battery (Li-ion battery)
- High-voltage cable / component
- High-voltage fuse
- High-voltage capacitor
- High voltage device that disconnects high voltage
- High-voltage cable / component
- Low voltage device that disconnects high voltage

Disconnecting the 12 V battery

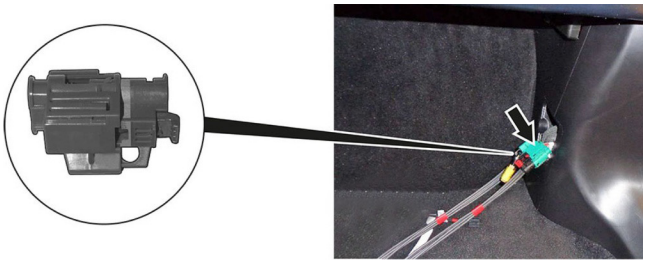
1. Remove the cover from the 12-volt battery in the engine compartment.
2. Disconnect the negative cable of the 12-volt battery at the screw connection and secure it against unintentional contact.

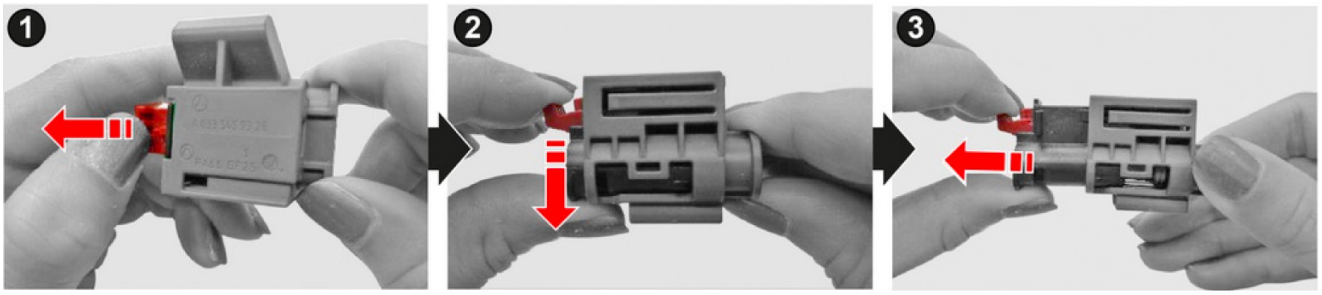
The passive safety systems (airbags and seat belt pretensioners) are deactivated.

Mercedes-Benz EQS Sedan

Disabling High-Voltage Electric Power - Option 1

High-voltage disconnect device
The high-voltage disconnect is located at the base of the A pillar on the passenger side.





(1) Pull the release

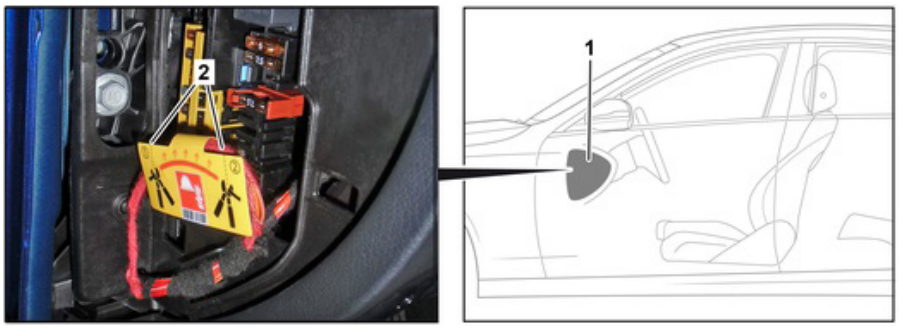
(2) Push the release down

(3) Pull out the switch

Mercedes-Benz EQS Sedan

Disabling High-Voltage Electric Power – Option 2

Option 2: Alternative high-voltage disconnect
The alternative high-voltage disconnect is located under the cover of the fuse box in the cockpit on the driver's side. It is indicated with a sign.



Remove the cover (1). Cut the cable at the marked point (2).

⚠ In order to ensure that there is no longer any residual voltage in the high-voltage system, wait approx. 20 seconds after switching it off.

⚠ The passive safety systems such as airbags and seat belt pretensioners will continue to be supplied with power by the 12-volt electrical system.

Disconnecting the 12 V battery

1. Remove the cover from the 12-volt battery in the engine compartment.
2. Disconnect the negative cable of the 12-volt battery at the screw connection and secure it against unintentional contact.

⚠ The passive safety systems (airbags and seat belt pretensioners) are deactivated.

Mercedes-Benz High-Voltage Vehicles

Fire Fighting Recommendations

This information is also available on the QR Code.
See additional information in the Guidelines for Car Rescue Crews.

Extinguishing Media
When possible, plenty of water should be used (approx. 27 gal/min). The H-V battery (Lithium-ion) can be sufficiently cooled by constant dousing with water. If you do not have access to water, any available non-flammable liquid can be used to extinguish the fire.

Recommendation for Fire Fighting
If the metal housing of the high-voltage battery is closed:

- Check the temperature, if the temperature is 80 °C/176 °F or less then continue to observe for increased temperature.
- If the temperature exceeds 80 °C/176 °F extinguish with plenty of water from a safe distance.

If the metal housing of the high-voltage battery is open:

- Extinguish with plenty of water from a safe distance

Burning or Outgassing High-Voltage Battery
An outgassing HV battery results in an acute risk of fire. The resulting fumes contain toxic and corrosive components (ex. Hydrofluoric acid). If the battery is outgassing, the following measures should be observed:

- Adjust your PPE (personal protective equipment) as needed for the situation
- Use self-contained breathing apparatuses in the exposed location
- Spray water to suppress the vapors and gases

In the event of a fire in the EQS Sedan, it is possible that the high-voltage battery may have also ignited due to prolonged heat exposure. In this case, water is the best extinguishing medium.
Depending on the battery type, it may not be possible to fully extinguish a burning high-voltage battery; it may continue to reignite until it has burned out on its own. In this case, the high-voltage battery should be cooled through constant dousing with water until the fire no longer spreads and a controlled burn-out is possible.

Annex: California Route List

The following are approximate locations of the start and end of the Operational Design Domain's geo-fence by highway.

Route Name	Start/End	Location (Nearby Exit/Entrance)
CA-1 N	Start	4th St / 5th St
CA-1 N	End	Under the 4th St overpass
CA-1 N	Start	Serramonte Blvd
CA-1 N	End	Alemany Blvd
CA-1 S	Start	John Daly Blvd (to I-280 N)
CA-1 S	End	Clarinada Ave
CA-1 S	Start	CA-1 S / Lincoln Blvd
CA-1 S	End	I-10 W (toward 20th Street exit)
CA-2 N	Start	Glendale Blvd
CA-2 N	End	Foothill Blvd
CA-2 S	Start	Foothill Blvd
CA-2 S	End	Glendale Blvd
CA-4 E	Start	I-80
CA-4 E	End	Sycamore Ave
CA-4 E	Start	Morello Ave / Glacier Dr
CA-4 E	End	Solano Way
CA-4 E	Start	Navy Dr
CA-4 E	End	Stanislaus St / Downtown Stockton
CA-4 W	Start	Stanislaus St / Downtown Stockton
CA-4 W	End	Navy Dr
CA-4 W	Start	Solano Way
CA-4 W	End	Morello Ave / Glacier Dr
CA-4 W	Start	Willow Ave (1 mi east of)
CA-4 W	End	I-80
CA-13 N	Start	I-580
CA-13 N	End	Park Blvd
CA-13 N	Start	Moraga Ave / Thornhill Dr
CA-13 N	End	Tunnel Rd
CA-13 S	Start	Tunnel Rd
CA-13 S	End	Moraga Ave / Thornhill Dr
CA-13 S	Start	Park Blvd
CA-13 S	End	I-580
CA-14 N	Start	I-5
CA-14 N	End	Newhall Ave
CA-14 S	Start	Newhall Ave
CA-14 S	End	I-5
CA-17 N	Start	Los Gatos / Saratoga
CA-17 N	End	I-280 (continues onto I-880 N)
CA-17 S	Start	I-280 (continues from I-880 S)
CA-17 S	End	Los Gatos / Saratoga
CA-22 E	Start	Studebaker Rd
CA-22 E	End	CA-55
CA-22 W	Start	CA-55
CA-22 W	End	Studebaker Rd
CA-23 N	Start	US-101
CA-23 N	End	Los Angeles Ave (continues onto CA-118 E)
CA-23 S	Start	Los Angeles Ave (continues from CA-118 W)
CA-23 S	End	US-101
CA-24 E	Start	I-580 (continues from I-980 E)
CA-24 E	End	I-680
CA-24 W	Start	I-680
CA-24 W	End	I-580 (continues onto I-980 W)
CA-37 E	Start	Discovery Kingdom Fairgrounds Drive
CA-37 E	End	I-80
CA-37 W	Start	I-80
CA-37 W	End	Discovery Kingdom Fairgrounds Drive
CA-41 N	Start	North Ave
CA-41 N	End	Tulare St
CA-41 S	Start	Tulare St / Divisadero St
CA-41 S	End	North Ave
CA-47 N	Start	I-110
CA-47 N	End	Harbor Blvd
CA-47 S	Start	Harbor Blvd
CA-47 S	End	I-110 / Gaffey St / San Pedro
CA-52 E	Start	I-5
CA-52 E	End	Santo Rd
CA-52 W	Start	Santo Rd
CA-52 W	End	I-5
CA-54 E	Start	I-5
CA-54 E	End	Woodman St
CA-54 W	Start	Woodman St
CA-54 W	End	I-5
CA-55 N	Start	22nd St / Victoria St
CA-55 N	End	CA-91
CA-55 S	Start	CA-91
CA-55 S	End	22nd St / Victoria St
CA-56 E	Start	I-5
CA-56 E	End	I-15 (0.4mi past Rancho Penasquitos Blvd)
CA-56 W	Start	I-15 (0.9mi before Rancho Penasquitos Blvd)
CA-56 W	End	I-5
CA-57 N	Start	I-5
CA-57 N	End	I-210
CA-57 S	Start	I-210
CA-57 S	End	I-5

The DRIVE PILOT ODD is comprised of both geographical areas and the conditions under which the system operates. The list herein includes approximate start and end points within the geographical ODD definition; however, these highway sections may not always be available to the customer depending on various conditions. The ODD definition ensures that DRIVE PILOT is only functional in environments and situations safe for the fallback-ready user and other road participants.

Annex: California Route List

The following are approximate locations of the start and end of the Operational Design Domain's geo-fence by highway.

Route Name	Start/End	Location (Nearby Exit/Entrance)
CA-58 E	Start	CA-99
CA-58 E	End	H St / Chester Ave
CA-58 E	Start	Main St
CA-58 E	End	I-15
CA-58 W	Start	I-15
CA-58 W	End	Main St
CA-58 W	Start	Chester Ave / H St
CA-58 W	End	CA-99
CA-60 E	Start	I-10
CA-60 E	End	Frederick St / Pigeon Pass Rd
CA-60 W	Start	Frederick St / Pigeon Pass Rd
CA-60 W	End	I-10
CA-71 N	Start	Edison Ave / Grand Ave
CA-71 N	End	Rio Rancho Rd
CA-71 N	Start	Mission Blvd
CA-71 N	End	I-10 / CA-57
CA-71 S	Start	I-10 / CA-57
CA-71 S	End	Mission Blvd
CA-71 S	Start	Rio Rancho Rd
CA-71 S	End	Edison Ave / Grand Ave
CA-73 N	Start	I-5
CA-73 N	End	I-405
CA-73 S	Start	I-405
CA-73 S	End	I-5
CA-78 E	Start	I-5
CA-78 E	End	El Camino Real
CA-78 E	Start	Nordahl Rd
CA-78 E	End	Centre City Pkwy
CA-78 W	Start	Centre City Pkwy
CA-78 W	End	Nordahl Rd
CA-78 W	Start	El Camino Real
CA-78 W	End	I-5
CA-84 N	Start	Newark Blvd / Ardenwood Blvd
CA-84 N	End	I-880
CA-84 S	Start	I-880
CA-84 S	End	Newark Blvd / Ardenwood Blvd
CA-85 N	Start	US-101
CA-85 N	End	US-101
CA-85 S	Start	US-101
CA-85 S	End	US-101
CA-87 N	Start	CA-85
CA-87 N	End	US-101
CA-87 S	Start	US-101
CA-87 S	End	CA-85
CA-90 E	Start	Centinela Ave
CA-90 E	End	I-405
CA-90 W	Start	I-405
CA-90 W	End	Centinela Ave
CA-91 E	Start	Vermont Ave
CA-91 E	End	CA-60 (continues onto I-215)
CA-91 W	Start	CA-60 (continues from I-215)
CA-91 W	End	I-110 (End freeway at Vermont Ave)
CA-92 E	Start	I-280
CA-92 E	End	Santa Clara St
CA-92 W	Start	Santa Clara St
CA-92 W	End	I-280
CA-94 E	Start	I-5
CA-94 E	End	Euclid Ave
CA-94 W	Start	Euclid Ave
CA-94 W	End	I-5
CA-99 N	Start	I-5
CA-99 N	End	CA-120 East / Sonora / Yosemite Ave
CA-99 N	Start	12th Ave
CA-99 N	End	US-50 (continues onto I-80 BL)
CA-99 S	Start	US-50 (continues from I-80 BL)
CA-99 S	End	12th Ave
CA-99 S	Start	CA-120 East / Sonora / Yosemite Ave
CA-99 S	End	I-5
CA-110 N	Start	I-10 (continues from I-110 N)
CA-110 N	End	Ave 43
CA-110 S	Start	Ave 43
CA-110 S	End	I-10 (continues onto I-110 S)
CA-113 N	Start	I-80
CA-113 N	End	Road 31 / Covell Blvd
CA-113 S	Start	Road 31 / Covell Blvd
CA-113 S	End	I-80
CA-118 E	Start	Los Angeles Ave (continues from CA-23 N)
CA-118 E	End	I-210
CA-118 W	Start	I-210
CA-118 W	End	Los Angeles Ave (continues onto CA-23 S)
CA-120 E	Start	I-5
CA-120 E	End	CA-99
CA-120 W	Start	CA-99
CA-120 W	End	I-5

Annex: California Route List

The following are approximate locations of the start and end of the Operational Design Domain's geo-fence by highway.

Route Name	Start/End	Location (Nearby Exit/Entrance)
CA-125 N	Start	Junction at CA-94
CA-125 N	End	Fletcher Pkwy
CA-125 S	Start	Fletcher Pkwy
CA-125 S	End	Spring St / CA-94 E
CA-126 E	Start	US-101
CA-126 E	End	Kimball Rd
CA-126 W	Start	Kimball Rd
CA-126 W	End	US-101
CA-133 N	Start	Laguna Canyon Rd / Pavona
CA-133 N	End	CA-241
CA-133 S	Start	CA-241
CA-133 S	End	Laguna Canyon Rd / Pavona
CA-134 E	Start	CA-170 (continues from US-101 S)
CA-134 E	End	I-710 (continues onto I-210 E)
CA-134 W	Start	I-710 (continues from I-210 W)
CA-134 W	End	CA-170 (continues onto US-101 N)
CA-160 N	Start	Del Paso Blvd
CA-160 N	End	BL-80 (CA-51)
CA-160 S	Start	BL-80 (CA-51)
CA-160 S	End	Del Paso Blvd
CA-163 N	Start	Ash St
CA-163 N	End	I-15
CA-163 S	Start	I-15
CA-163 S	End	Ash St
CA-170 N	Start	CA-134 (continues from US-101 N)
CA-170 N	End	I-5
CA-170 S	Start	I-5
CA-170 S	End	CA-134 (continues onto US-101 S)
CA-180 E	Start	Marks Ave
CA-180 E	End	Blackstone Ave / Abby St
CA-180 W	Start	Blackstone Ave / Abby St
CA-180 W	End	Marks Ave
CA-210 E	Start	CA-57 (continues from I-210 E)
CA-210 E	End	I-10
CA-210 W	Start	I-10
CA-210 W	End	CA-57 (continues onto I-210 W)
CA-237 E	Start	CA-85
CA-237 E	End	I-880
CA-237 W	Start	I-880
CA-237 W	End	CA-85
CA-241 N	Start	Portola Parkway
CA-241 N	End	CA-91
CA-241 S	Start	CA-91
CA-241 S	End	Portola Parkway
CA-242 N	Start	I-680
CA-242 N	End	Clayton Rd
CA-242 S	Start	Clayton Rd
CA-242 S	End	I-680
CA-259 N	Start	I-215
CA-259 N	End	CA-210
CA-259 S	Start	CA-210
CA-259 S	End	I-215
CA-261 N	Start	Walnut Ave
CA-261 N	End	CA-241
CA-261 S	Start	CA-241
CA-261 S	End	Walnut Ave
CA-905 E	Start	I-5
CA-905 E	End	Caliente Ave
CA-905 W	Start	Caliente Ave
CA-905 W	End	I-5
I-5 N	Start	International border with Mexico
I-5 N	End	Del Paso Rd
I-5 S	Start	Del Paso Rd
I-5 S	End	International border with Mexico
I-8 E	Start	Nimitz Blvd / Sunset Cliffs Blvd
I-8 E	End	Harbison Canyon / Dunbar Lane
I-8 W	Start	Harbison Canyon / Dunbar Lane
I-8 W	End	Nimitz Blvd / Sunset Cliffs Blvd
I-10 E	Start	4th St / 5th St
I-10 E	End	Dillon Rd
I-10 W	Start	Dillon Rd
I-10 W	End	4th St / 5th St
I-15 N	Start	I-5
I-15 N	End	State border with Nevada
I-15 S	Start	State border with Nevada
I-15 S	End	I-5
I-40 E	Start	I-15
I-40 E	End	Marine Corps Logistics Base
I-40 W	Start	Marine Corps Logistics Base
I-40 W	End	I-15
I-80 E	Start	US-101
I-80 E	End	Lincoln Way
I-80 W	Start	Russell Road / Lincoln Way
I-80 W	End	US-101

Annex: California Route List

The following are approximate locations of the start and end of the Operational Design Domain's geo-fence by highway.

Route Name	Start/End	Location (Nearby Exit/Entrance)
BL-80 E	Start	US-50 (continues from CA-99 N)
BL-80 E	End	I-80
BL-80 W	Start	I-80
BL-80 W	End	US-50 (continues onto CA-99 S)
I-105 E	Start	Imperial Hwy / CA-1
I-105 E	End	I-605
I-105 W	Start	I-605
I-105 W	End	Imperial Hwy / CA-1
I-110 N	Start	CA-47 / Gaffey St / San Pedro
I-110 N	End	I-10 (continues onto CA-110 N)
I-110 S	Start	I-10 (continues from CA-110 S)
I-110 S	End	CA-47 / Gaffey St / San Pedro
I-205 E	Start	I-580
I-205 E	End	I-5
I-205 W	Start	I-5
I-205 W	End	I-580
I-210 E	Start	I-5
I-210 E	End	CA-57 (continues onto CA-210 E)
I-210 W	Start	CA-57 (continues from CA-210 W)
I-210 W	End	I-5
I-215 N	Start	I-15
I-215 N	End	I-15
I-215 S	Start	I-15
I-215 S	End	I-15
I-238 N	Start	I-580 (branches from I-580 W)
I-238 N	End	I-880
I-238 S	Start	I-880
I-238 S	End	I-580 (merges with I-580 E)
I-280 N	Start	US-101 (continues from I-680 S)
I-280 N	End	Sixth St
I-280 S	Start	Sixth St
I-280 S	End	US-101 (continues onto I-680 N)
I-380 E	Start	I-280
I-380 E	End	US-101
I-380 W	Start	US-101
I-380 W	End	I-280
I-405 N	Start	I-5
I-405 N	End	I-5
I-405 S	Start	I-5
I-405 S	End	I-5
I-505 N	Start	I-80
I-505 N	End	Vaca Valley Parkway
I-505 S	Start	Vaca Valley Parkway
I-505 S	End	I-80
I-580 E	Start	US-101
I-580 E	End	I-5
I-580 W	Start	I-5
I-580 W	End	US-101
I-605 N	Start	I-405 / CA-22
I-605 N	End	I-210
I-605 S	Start	I-210
I-605 S	End	I-405 / CA-22 / 7th St
I-680 N	Start	US-101 (continues from I-280 S)
I-680 N	End	I-80
I-680 S	Start	I-80
I-680 S	End	US-101 (continues onto I-280 N)
I-710 N	Start	Pico Ave / Downtown / Piers A-J
I-710 N	End	Valley Blvd
I-710 S	Start	Valley Blvd
I-710 S	End	Piers F-J / Queen Mary / Pico Ave
I-780 E	Start	I-80
I-780 E	End	I-680
I-780 W	Start	I-680
I-780 W	End	I-80
I-805 N	Start	I-5
I-805 N	End	I-5
I-805 S	Start	I-5
I-805 S	End	I-5
I-880 N	Start	I-280 (continues from CA-17 N)
I-880 N	End	I-80
I-880 S	Start	I-80
I-880 S	End	I-280 (continues onto CA-17 S)
I-980 E	Start	I-880
I-980 E	End	I-580 (continues to CA-24 E)
I-980 W	Start	I-580 (continues from CA-24 W)
I-980 W	End	I-880
US-50 E	Start	I-80
US-50 E	End	Bass Lake Rd
US-50 W	Start	Bass Lake Rd
US-50 W	End	I-80
US-101 N	Start	CA-60 (continues from I-5 N)
US-101 N	End	CA-126 / Main St
US-101 N	Start	Bailey Ave
US-101 N	End	I-80

Annex: California Route List

The following are approximate locations of the start and end of the Operational Design Domain's geo-fence by highway.

Route Name	Start/End	Location (Nearby Exit/Entrance)
US-101 N	Start	Presidio / Marina Blvd
US-101 N	End	Lincoln Blvd
US-101 N	Start	Alexander Ave
US-101 N	End	Atherton Ave / San Marin Dr
US-101 S	Start	Atherton Ave / San Marin Dr
US-101 S	End	Alexander Ave
US-101 S	Start	Lincoln Blvd
US-101 S	End	Lyon St
US-101 S	Start	I-80
US-101 S	End	Bailey Ave
US-101 S	Start	CA-126
US-101 S	End	CA-60 (continues onto I-5 S)