

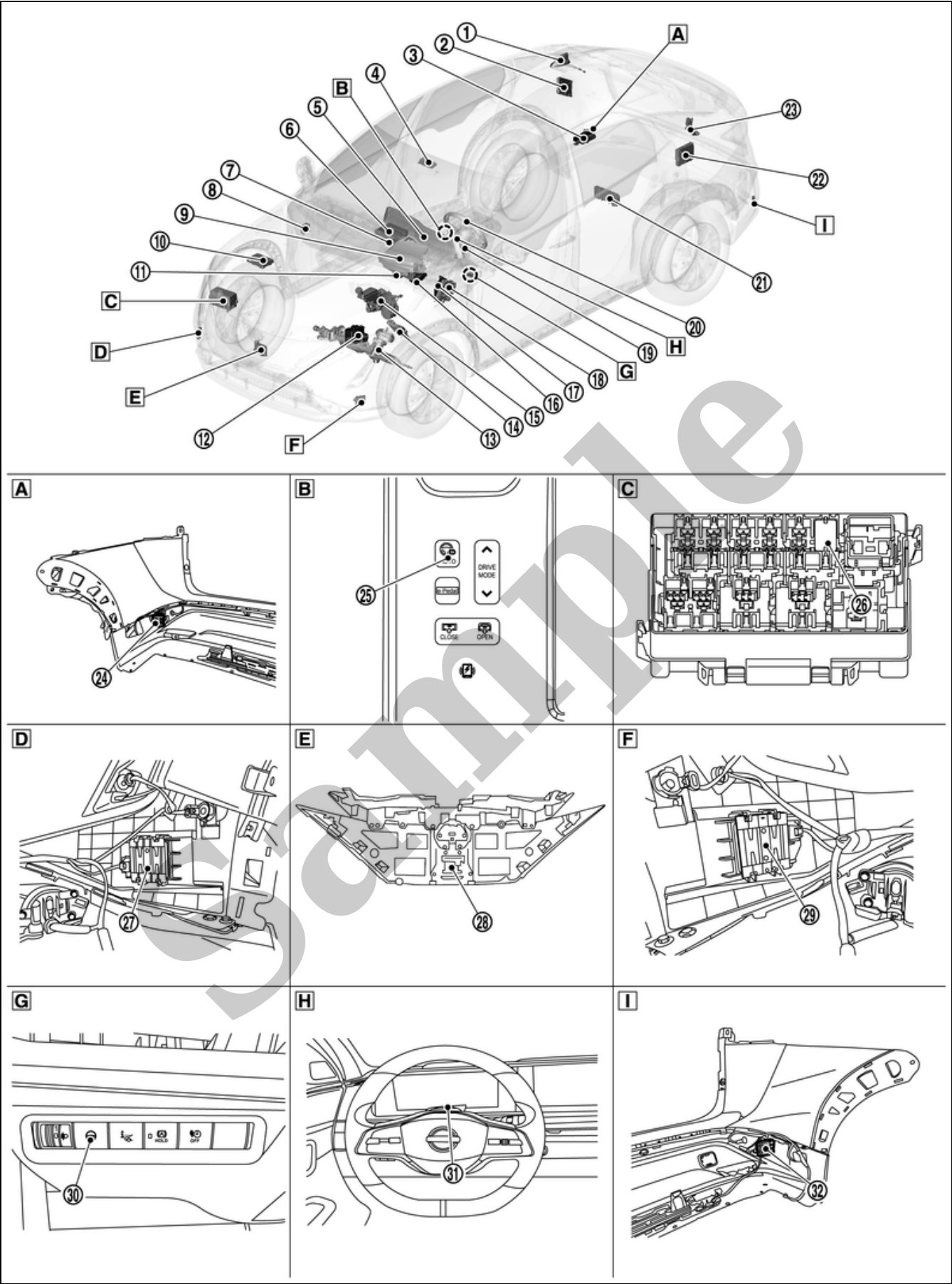
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2018 NISSAN Cube OEM Service and Repair Workshop Manual

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Display	Message	Possible cause	Description/Action	Buzzer
	Below Operational Speed	speed is lower than 60 km/h (37 MPH) approx.		
	Lane Change Assist Canceled Vehicle Detected	When lane change support function is cancelled because vehicle is detected in the target lane	Change lane by operating steering wheel.	ON
	Lane Change Assist Canceled	When overtaking support function is cancelled because adjacent lane is not detected	Change lane by operating steering wheel.	ON
	Lane Change Assist Canceled	When approaching to exit or road split while adjacent lane cannot be detected	Change lane by operating steering wheel.	ON
	Lane Change Assist Canceled	- When lane marker cannot be detected - When lane marker in the destination lane becomes white or yellow solid line - When it is difficult to measure distance to surrounding vehicles due to dirty side radar - When lane change support function is abnormal	Change lane by operating steering wheel.	ON



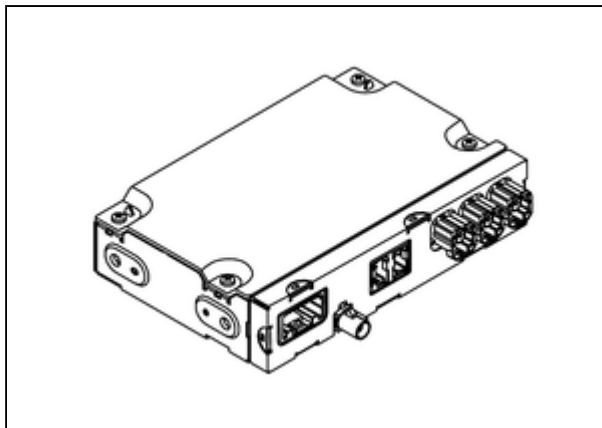
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A	Rear bumper (RH)	B	Center console finisher	C	Motor room (RH)
D	Front bumper (RH)	E	Front grill (view with front grill removed)	F	Front bumper (LH)
G	Instrument lower panel LH	H	Steering wheel	I	Rear bumper (LH)

①	GNSS antenna	②	ADAS control unit 2 Refer to Component Parts Location for detailed installation location.	③	HD map module
④	Front camera unit Refer to Component Parts Location for detailed installation location.	⑤	Combination meter Refer to Component Parts Location for detailed installation location.	⑥	AV control unit Refer to Component Parts Location for detailed installation location.
⑦	Driver monitor camera control unit Refer to Component Parts Location for detailed installation location.	⑧	Chassis control module Refer to Component Parts Location for detailed installation location.	⑨	Head Up Display unit Refer to Component Parts Location for detailed installation location.
⑩	IPDM E/R Refer to Component Parts Location for detailed installation location.	⑪	TEL antenna Refer to Component Parts Location for detailed installation location.	⑫	ABS actuator and electric unit (control unit) Refer to Component Parts Location for detailed installation location.
⑬	Power steering control module Refer to Component Parts Location for detailed installation location.	⑭	VCM Refer to Component Parts Location for detailed installation location.	⑮	Electrically-driven intelligent brake unit Refer to Component Parts Location for detailed installation location.
⑯	TCU Refer to Component Parts Location for detailed installation location.	⑰	8CH CAN gateway Refer to Component Parts Location for detailed installation location.	⑱	BCM Refer to Component Parts Location for detailed installation location.
⑲	Steering angle sensor Refer to Component Parts Location for detailed installation location.	⑳	Steering wheel touch sensor	㉑	Power network separate relay
㉒	Around view monitor control unit Refer to Component Parts Location for detailed installation location.	㉓	Sonar control unit Refer to Component Parts Location for detailed installation location.	㉔	Side radar rear RH Refer to Component Parts Location for detailed installation location.
㉕	ProPILOT Park switch Refer to Component Parts Location for detailed installation location.	㉖	Brake hold relay	㉗	Side radar front RH Refer to Component Parts Location for detailed installation location.
㉘	Distance sensor Refer to Component Parts Location for detailed installation location.	㉙	Side radar front LH Refer to Component Parts Location for detailed installation location.	㉚	Steering assist switch
㉛	ProPILOT Assist 2.0 steering switch	㉜	Side radar rear LH Refer to Component Parts Location for detailed installation location.		

FUNCTIONS WITHIN THE SYSTEM

HD map module transmits HD map data to ADAS control unit 2 via Ethernet communication.



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INDIVIDUAL FUNCTIONS WITHIN THE SYSTEM

- HD map module stores HD map data.
- HD map data cannot be displayed on the screen of navigation system or visually viewed in any other way because HD map data is used to control ProPILOT Assist 2.0.



NOTE:

The data for navigation system is stored in the AV control unit.

- If there is the latest HD map data, it is updated automatically. For updating HD map data, refer to [System Description](#).

INDIVIDUAL OPERATION

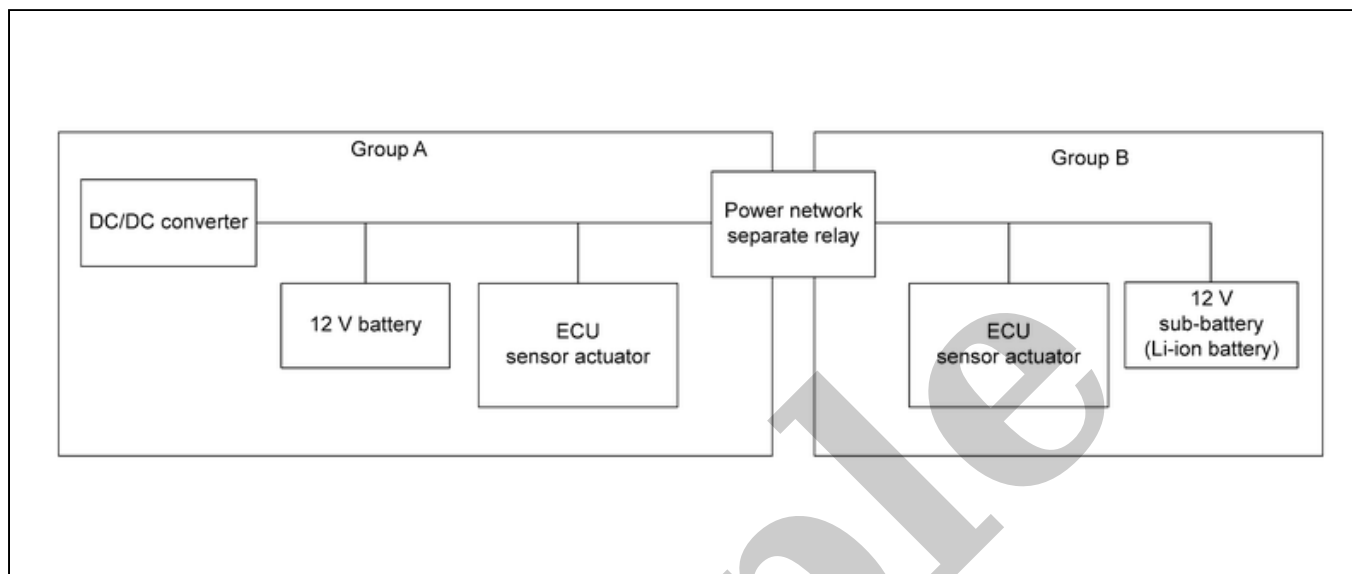
ProPILOT Assist 2.0: Refer to [System Description](#).

PARTS LOCATION

Refer to [Component Parts Location](#).

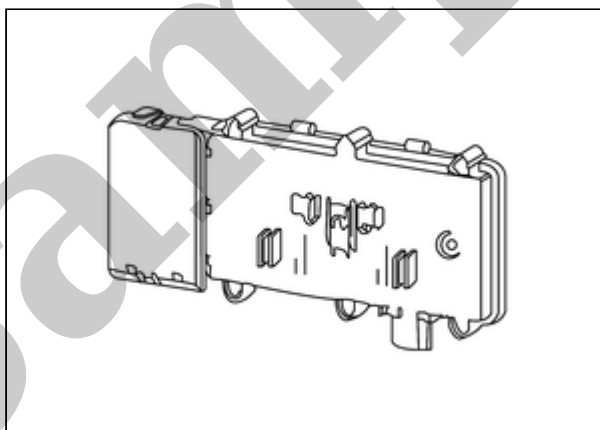
FUNCTIONS WITHIN THE SYSTEM

- In order to continue the function of ProPILOT Assist 2.0 even in the abnormal condition, the power supply system of ProPILOT Assist 2.0 is divided into two power supply groups such as DC/DC converter side (Group A) and 12 V sub-battery (Li-ion battery) side (Group B).



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- Power network separate relay is installed between two power supply groups.



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- Power network separate relay detects voltage fluctuation of each power supply group during ProPILOT Assist 2.0 operation.
- When abnormality occurs on one of two power supply groups during ProPILOT Assist 2.0 operation, power network separate relay cuts off the circuit to maintain function by the normal power supply group.

INDIVIDUAL FUNCTIONS WITHIN THE SYSTEM

Power network separate relay cuts off the circuit between DC/DC converter side (group A) and 12 V sub-battery (Li-ion battery) side (group B) according to voltage fluctuation.

INDIVIDUAL OPERATION

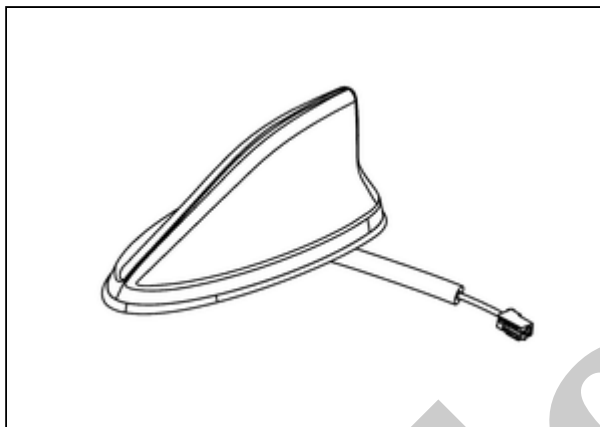
System backup function: Refer to [System Description](#).

PARTS LOCATION

Refer to [Component Parts Location](#).

FUNCTIONS WITHIN THE SYSTEM

- Roof antenna (GNSS antenna) that is communication antenna of HD map module receives radio waves from quasi-zenith satellite.



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- Radio wave that received from quasi-zenith satellite is amplified and transmitted to HD map module as GNSS antenna signal.

INDIVIDUAL FUNCTIONS WITHIN THE SYSTEM

Built in GNSS antenna is used in HD map module.

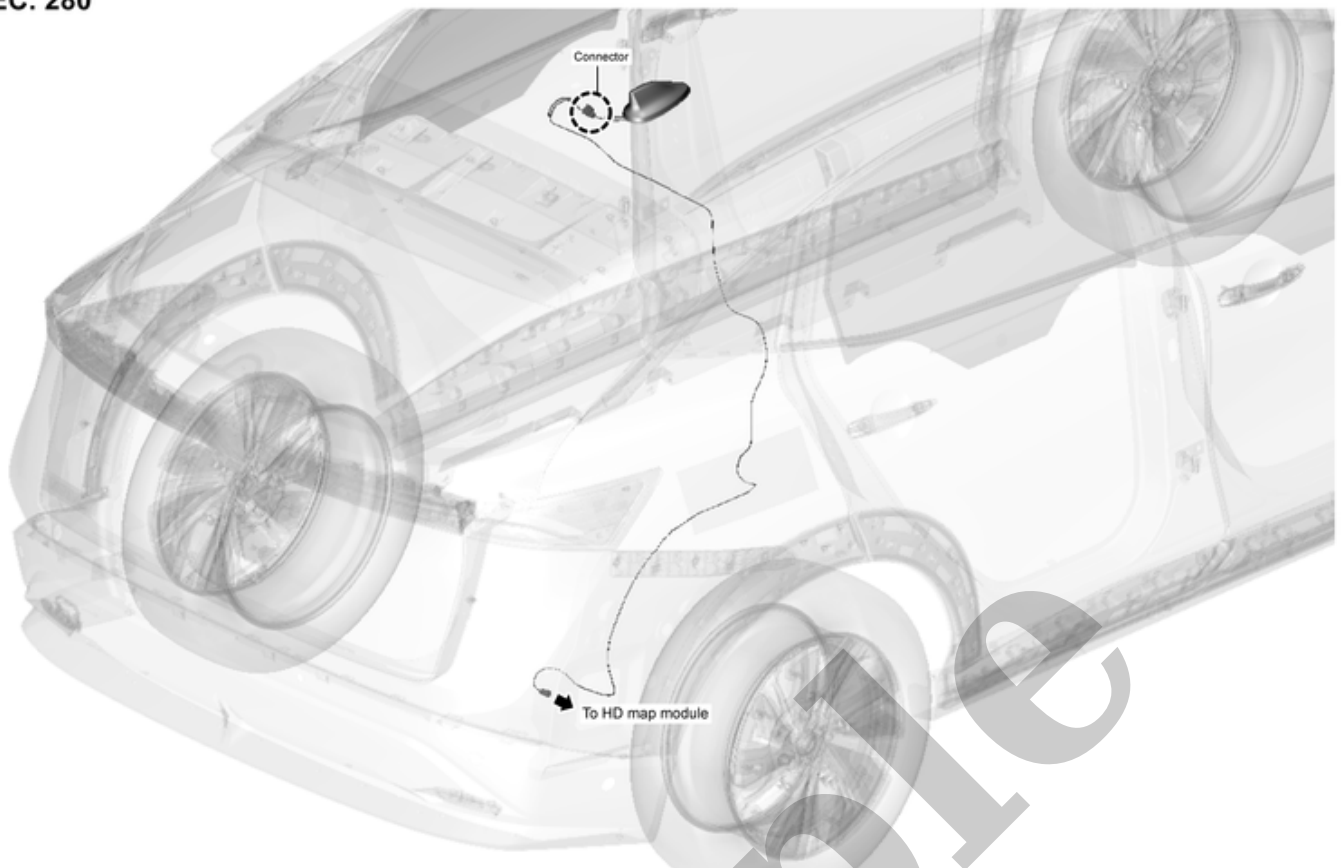
INDIVIDUAL OPERATION

GNSS antenna is supplied power from HD map module and receives positioning information from quasi-zenith satellite.

PARTS LOCATION

Refer to [Component Parts Location](#).

ANTENNA FEEDER



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FUNCTIONS WITHIN THE SYSTEM

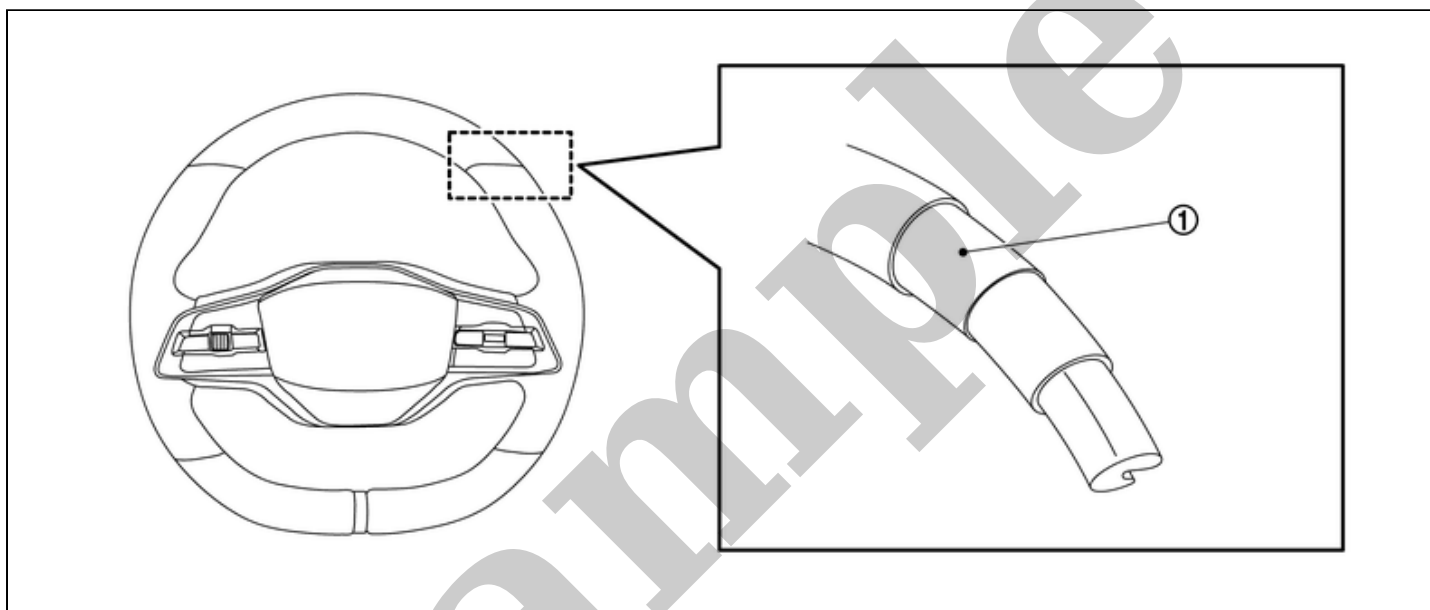
The steering wheel touch sensor detects driver's steering wheel holding status and transfer its signal to ADAS control unit 2 via LIN communication.

INDIVIDUAL FUNCTIONS WITHIN THE SYSTEM

The steering wheel touch sensor judges if the steering wheel is held or not.

INDIVIDUAL OPERATION

The steering wheel touch sensor ① is integrated with the entire steering wheel and utilizes electrostatic capacity change between the electrode of sensor and the hand to judge whether the steering wheel is held or not.



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PARTS LOCATION

Refer to [Component Parts Location](#).

FUNCTIONS WITHIN THE SYSTEM

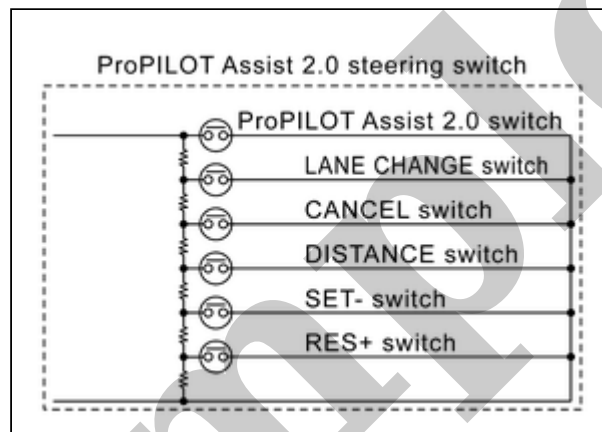
- By operating the switch located on the steering wheel, it is easy to operate ON/OFF of ProPILOT Assist 2.0 and set vehicle speed/vehicle-to-vehicle distance.
- The steering switch operation by the driver is input to VCM and transmitted to ADAS control unit 2 via CAN communication.

INDIVIDUAL FUNCTIONS WITHIN THE SYSTEM

- The steering switch operation by the driver is detected.

INDIVIDUAL OPERATION

- ProPILOT Assist 2.0 steering switch consists of a normal open type switch and a combination of resistors.



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- When each switch is pressed, the voltage changes according to the resistance value specified to each switch. VCM reads which switch is operated depending on the voltage.

PARTS LOCATION

Refer to [Component Parts Location](#).