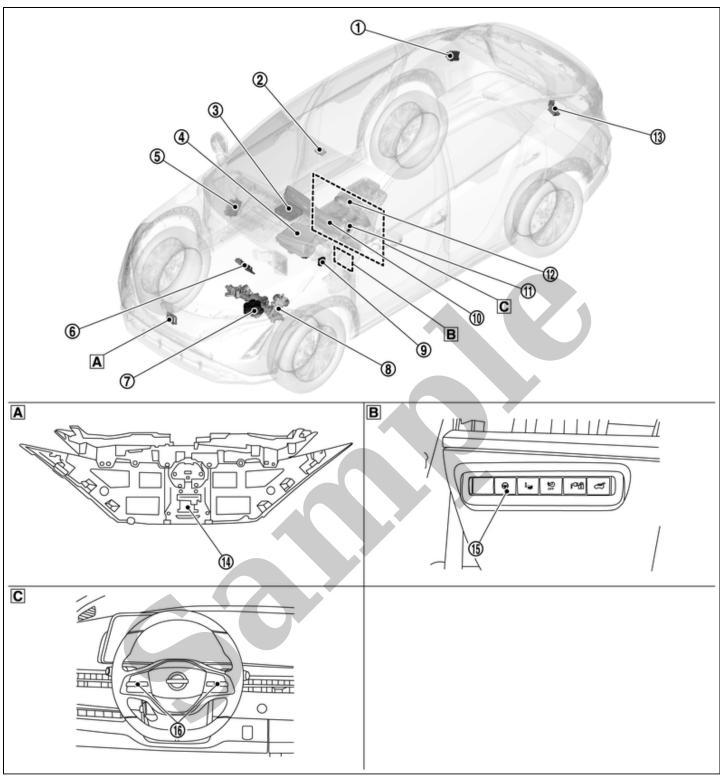


# Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2017 NISSAN Teana OEM Service and Repair Workshop Manual

Go to manual page



SIEMD-7106235-01-000386292

Α	Front grill (view with front grill removed)			B	Instrument lower panel LH			O	Steering wheel
1	ADAS control unit 2  Refer to Component Parts Location for detailed installation location.	@	Front camera unit  Refer to Component Parts Location for detailed installation location.			3	AV control unit  Refer to Component Parts Location for detailed installation location		
4	Head Up Display unit  Refer to Component Parts Location for detailed installation location.	(5)			ent Parts Location lation location.	6			nent Description for ion location.

7	ABS actuator and electric unit (control unit)  Refer to Component Parts Location for detailed installation location.	8	Power steering control module  Refer to Component Parts Location for detailed installation location.	9	Chassis control module  Refer to Component Description for detailed installation location
10	Combination meter  Refer to Component Parts Location for detailed installation location	11)	Steering angle sensor  Refer to Component Parts Location for detailed installation location.	12	Steering wheel touch sensor
13	Sonar control unit  Refer to Component Parts Location for detailed installation location	14)	Distance sensor  Refer to Component Parts Location for detailed installation location.	15)	Steering assist switch
16	Steering switch				



#### **FUNCTIONS WITHIN THE SYSTEM**

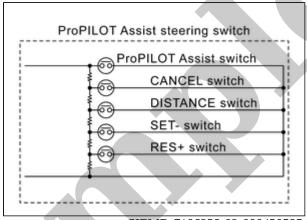
- ProPILOT Assist steering switch allows the ON/OFF of the ProPILOT Assist and the settings of a vehicle speed and distance between vehicles.
- ProPILOT Assist steering switch signal is transmitted to VCM. VCM transmits the signal to the ADAS control unit 2 via CAN communication.

#### INDIVIDUAL FUNCTIONS WITHIN THE SYSTEM

• ProPILOT Assist steering switch detects a switch operation by the driver.

#### INDIVIDUAL OPERATION

• The steering switch is composed of a combination of a normal open switch and a resistor.



SIEMD-7106238-02-000430595

• When each switch is pressed, the VCM detects which switch is operated according to input voltage.

### PARTS LOCATION

Refer to Component Parts Location.

# FUNCTIONS WITHIN THE SYSTEM

• Steering assist switch allows the ON/OFF of steering assistance function.

# INDIVIDUAL FUNCTIONS WITHIN THE SYSTEM

• Transmits a steering assist switch signal to ADAS control unit 2.

### INDIVIDUAL OPERATION

- Steering assist switch changes the switch operation of driver to the voltage change (ON: 0V / OFF: 12V)
- ECU reads the state of the switch by the voltage change.

# **PARTS LOCATION**

Refer to Component Parts Location.



# **FUNCTIONS WITHIN THE SYSTEM**

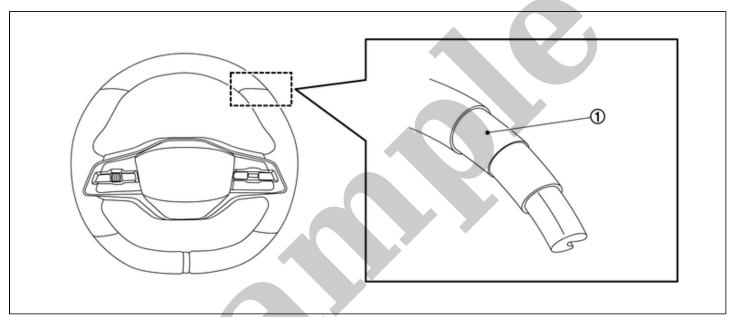
The steering wheel touch sensor detects driver's steering wheel holding status and transfer its signal to ADAS control unit 2 via LIN communication.

# 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 the sensor and hands to judge whether the steering wheel is held or not.



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# PARTS LOCATION

Refer to Component Parts Location.

#### DISTANCE SENSOR HANDLING

Refer to Precautions for Intelligent Forward Collision Warning.

#### FRONT CAMERA UNIT HANDLING

Refer to Precautions for Lane Departure Warning.

#### PRECAUTIONS FOR USING ProPILOT Assist

- Failure to follow the following warnings and instructions for proper use of the ProPILOT Assist systems, as applicable, could result in an accident causing serious injury or death.
- Always drive carefully and attentively when using the ProPILOT Assist systems. Read and understand the Owner's Manual thoroughly before using the ProPILOT Assist systems. To avoid serious injury or death, do not rely on the systems to prevent accidents or to control the vehicle's speed in emergency situations.
- Do not use the ProPILOT Assist systems except in appropriate road and traffic conditions.
- The ProPILOT Assist systems are for limited access freeway use only and are not intended for city driving.
- The ProPILOT Assist systems are not self-driving systems. Within the limits of their capabilities, as described in this manual, they help the driver with certain driving activities.
- The ProPILOT Assist systems are not replacements for proper driving procedures and will not correct careless, inattentive or absent-minded driving. Regardless of which system or function is being used, it is the driver's responsibility to stay alert, drive safely, and be in control of the vehicle at all times. Failure to apply the brakes or steer the vehicle when necessary may result in a serious accident.
- The ProPILOT Assist systems are only aids to assist the driver and are not collision warning or avoidance devices.
- There are limitations to the ProPILOT Assist systems' capabilities. Never rely solely on these systems. The ProPILOT Assist systems do not function in all driving, traffic, weather and road conditions.
- Never unfasten your safety seat belt when using the ProPILOT Assist. Doing so automatically cancels the ProPILOT Assist systems.
- When using the ProPILOT Assist systems, always observe posted speed limits and do not set the speed over them.
- When the accelerator pedal is depressed, the ProPILOT Assist systems will not provide automatic braking and/or the approach
  warning. The driver must manually control the vehicle speed to maintain a safe distance to the vehicle ahead. Failure to do so
  could result in severe personal injury or death.
- Do not rely on the ProPILOT Assist systems to prevent accidents. The driver must maintain a safe distance to the vehicle ahead by braking or accelerating, depending on the surrounding circumstances.
- When using Steering Assist, it is the driver's responsibility to stay alert, drive safely, keep the vehicle in the traveling lane and be in control of the vehicle at all times. Never take your hands off the steering wheel while driving unless the driving conditions allow and the ProPILOT Assist system is in Hands Off mode. Keep your hands on the steering wheel and drive the vehicle safely.
- Steering Assist is intended for use on limited access freeways with gentle (moderate) curves. To avoid risk of an accident, do not use this system on local or nonhighway/freeway roads.
- Steering Assist only steers the vehicle to maintain its position in the center of a lane. The vehicle will not steer to avoid
  objects in the road in front of the vehicle, to avoid a vehicle moving into own lane or to avoid a vehicle approaching from the
  side.
- When using conventional (fixed speed) cruise control mode, a warning chime does not sound to warn you if you are too close
  to the vehicle ahead, as neither the presence of the vehicle ahead nor the vehicle-to-vehicle distance is detected. Pay special
  attention to the distance between own vehicle and the vehicle ahead, or a collision could occur.
- Always confirm the setting in the ICC system display.

- Do not use the conventional (fixed speed) cruise control mode when driving under the following conditions (doing so could cause a loss of vehicle control and result in an accident):
  - When it is not possible to keep the vehicle at a set speed
  - In heavy traffic or in traffic that varies in speed
  - On winding or hilly roads
  - On slippery roads (rain, snow, ice, etc.)
  - In very windy areas

If an improper repair is performed on the bumper (for example, application of putty made from different materials, repaint, etc.) the radar signal could be weakened or prevented from functioning properly. This may cause the radar sensor not to detect objects correctly. Improper repair may result in serious personal injury. If it is necessary to repair the bumper, it is recommended own visit a NISSAN certified ARIYA dealer for this service.

- These systems are primarily intended for use on freeways. It is not advisable to use these systems in city/urban traffic.
- These systems will not adapt automatically to all road conditions. They should be used in evenly flowing traffic. Do not use these systems on roads with sharp curves or in inclement weather or adverse road conditions.
- There are performance limits to all ProPILOT Assist functions. Never rely solely on these systems. These systems do not correct careless, inattentive, or absent-minded driving or overcome poor visibility in inclement weather.
- When using these systems, the driver must be attentive to the driving task. When necessary, decelerate the vehicle speed by
  using the brake pedal, accelerate using the accelerator pedal, and steer the vehicle as appropriate in order to maintain a safe
  distance between vehicles and manage changing or dynamic traffic, vehicle and roadway conditions.
- When the ProPILOT Assist function automatically brings the vehicle to a stop, own vehicle can automatically accelerate if the vehicle is stopped for less than approximately 30 seconds on the freeway. Always be prepared to apply the brakes and stop own vehicle if necessary.
- Always check own surroundings before restarting the vehicle when it has been at a stop.
- These systems are not designed to detect anything other than motorized vehicles travelling in the same direction on the roadway. In particular, the systems do not detect the following objects:
  - Pedestrians, animals or objects in the roadway
  - Oncoming vehicles in the same lane
  - Motorcycles travelling offset in the travel lane
  - Road debris
- In the following situations, the ProPILOT Assist functions and system may not operate properly. To avoid accidents or unwanted system operation, never use these systems under the following conditions:
  - On roads with heavy, highspeed traffic or sharp curves
  - On slippery or adverse road surfaces, such as on wet, icy or snowy roads, or when roadway traffic is causing adverse travel conditions (i.e. road spray from passing vehicles)
  - o On unpaved or uneven roadway surfaces, or on steep uphill or downhill roads
  - During inclement weather, such as rain, snow, fog, ice, sandstorms or dust storms
  - When sensor detection capabilities are reduced, for example:
    - When snow/ice/dirt are covering the sensors or the camera area of the windshield is fogged up
    - When objects, such as stickers, bike racks or cargo obstruct the vehicle sensors
    - When strong light (for example, sunlight or high beams from oncoming vehicles) enters the cameras or there is a sudden change in brightness (for example, entering or exiting a tunnel or driving under a bridge)
  - When traffic conditions make it difficult to keep a proper distance between vehicles because of frequent acceleration or deceleration, or when the cut-in detection function or approach warning activates frequently
  - When a complicated-shaped vehicle, such as a car carrier trailer or flatbed truck/trailer is near the vehicle ahead

- When there is interference by other radar sources
- When driving with vehicle equipment that is not original to the vehicle (for example, equipped with non-original brake, tire or suspension parts) or not within normal conditions (for example, tire wear, abnormal tire pressure, installation of tire chains, reduced headlight brightness)
- When excessively heavy baggage is loaded in the rear seat or cargo area of the vehicle, or when vehicle load capacity is exceeded.
- When towing a trailer or other vehicle (AWD models)
- When driving on roads with missing, unclear, discontinued or less detectable lane markers or roads with multiple parallel lane markers, or roads with markings or features that might be detected as lane markers (for example, wheel ruts and paving seams)
- When driving on roads where the lane markers or traffic patterns are changing, temporary or unusual (for example, merging or separating lanes, widering/narrowing lanes, exit ramps, toll gates, construction zones, lane closures)
- When the lane markers are not visible due to darkness and the headlights are off
- There are variety of conditions and situations in which the detection of a vehicle ahead may be delayed or the vehicle ahead may not be detected. A few examples include:
  - A vehicle suddenly cuts in front of own vehicle
  - When driving on a blind curve or winding road
  - A stationary vehicle or vehicle travelling at a much slower speed suddenly becomes apparent after the vehicle ahead changes lanes
  - When motorcycles are traveling offset from the center of the lane
- Drivers should always be attentive and take action if needed to manage the roadway and traffic situation.
- The side radar sensors may not detect or may have delayed detection of vehicles in adjacent lanes in some conditions, for example, vehicles approaching rapidly from behind, particularly high or low ground clearance vehicles, motorcycles, or a vehicle which has recently entered that zone from behind. Stay alert to surrounding vehicles and operate the steering wheel as needed for traffic conditions.
- In some conditions, a vehicle or object can unexpectedly come into the sensor detection zone and cause automatic braking. Always stay alert and avoid using the systems where not recommended.
- Excessive noise will interfere with the warning chime sound and the beep may not be heard.

When the accelerator pedal is depressed, the ICC system will not provide automatic braking and approach warning. The driver must manually control the vehicle speed to maintain a safe distance to the vehicle ahead. Failure to do so could result in severe personal injury or death.

To prevent the vehicle from moving or rolling unexpectedly, which could result in serious personal injury or property damage, before exiting the vehicle, make sure to push the ProPILOT Assist switch to turn the system off. Push the P (Park) position switch to shift to the P (Park) position, and turn the EV system off.

If a vehicle cuts in after own vehicle was stopped by the ICC system, it cannot be detected depending on its position or direction. Own vehicle may approach the cut-in vehicle when restarting. Operate the brake pedal to maintain a safe distance to the vehicle ahead.

To avoid accidentally engaging cruise control, make sure to turn the ProPILOT Assist switch off when not using the ICC system.

Listed below are the system limitations for Speed Adjust by Route. Failure to operate the vehicle in accordance with these system limitations could result in serious injury or death:

- There are limitations to Speed Adjust by Route system capability. The system does not function in all driving, traffic, weather and road conditions. It is the driver's responsibility to stay alert, drive safely, and be in control of the vehicle at all times.
- Speed Adjust by Route does not brake the vehicle to a stop. Whenever necessary, the driver must apply appropriate braking.
- It is the driver's responsibility to select the proper speed, follow all traffic regulations and observe other road users.
- Speed Adjust by Route will not function in Hawaii or US island territories.
- Speed Adjust by Route may not operate properly in some road and traffic conditions, and the system may unexpectedly
  change the speed. The driver must manually control the vehicle speed.

#### Below are some examples:

- When the data from the navigation system is not up-todate or is unavailable.
- When not driving along the route suggested by the navigation system.
- When the navigation system is recalculating the route.
- When driving in countries or areas not covered by the navigation system.
- When driving on a road under construction or newly constructed road.
- When driving near a road split or junction.
- When driving in bad weather or poor road conditions.

It is the drivers responsibility to always drive in a legal manner and obey all local and state regulations.

