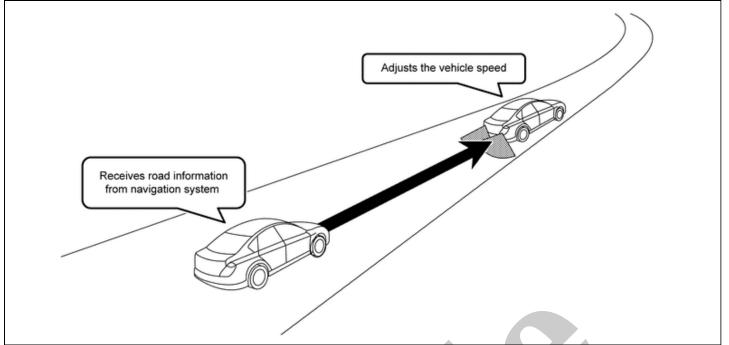


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2017 NISSAN Skyline Sedan OEM Service and Repair Workshop Manual

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SIEMD-7106215-03-000312497

OPERATION DESCRIPTION

- When ProPILOT Assist is OFF, pressing the ProPILOT Assist steering wheel switch for less than 1.5 seconds displays the ProPILOT Assist status, and the set wait condition is engaged.
- ADAS control unit 2 performs the control as per the following:

| Constant speed | The ADAS control unit compares the set vehicle speed with the current vehicle speed, transmits the command to VCM via CAN communication to reach the set vehicle speed, and controls the electric throttle control actuator. |
|--|---|
| The ADAS control unit 2 sends commands to the VCM and the ABS actuator and electric unit (controlunit) and controls the vehicle speed for keeping the proper distance between vehicles coord the vehicle speed changes of the vehicle ahead. | |
| Following → Stop | The ADAS control unit 2 sends commands to the ABS actuator and electric unit (controlunit) and stops the vehicle. After the vehicle stops, it is held at a stop. |
| Starting from stop → Following | The ADAS control unit 2 judges that the RES+ switch is pressed by the ProPILOT Assist steering switch signal from the VCM or the accelerator pedal is depressed by the accelerator pedal position signal from VCM, transmits the command to VCM to resume following driving, and controls the electric throttle control actuator. |

- When the ADAS control unit 2 judges that a vehicle moves into own traveling lane near own vehicle by the distance sensor signal from the distance sensor, it transmits the meter display signal to the combination meter to turn ON the vehicle ahead detection indicator.
- When the ADAS control unit 2 judges that own vehicle comes closer to the vehicle ahead due to rapid deceleration of that vehicle or another vehicle cuts in by the distance sensor signal from the distance sensor, it performs the following operations:
 - Transmits the meter display signal to the combination meter to turn ON ProPILOT Assist system display.
 - Transmits the buzzer output signal to the combination meter to sound the buzzer.
- When the ADAS control unit 2 judges that the turn signal is activated to the left while the own vehicle is following a slower vehicle (below set speed) at 70 km/h (44 MPH) or more, it transmits the command to the VCM to accelerate the vehicle.
- When the ADAS control unit 2 judges that new speed limit sign is indicated while the ProPILOT Assist is activing, it applies to the vehicle set speed. (With Full TFT meter)
- When the ADAS control unit 2 receives the road information (curves, junctions and exits) from the navigation system, it transmits the command to the VCM to adjust the vehicle speed. (With Full TFT meter)

OPERATION CONDITION

- ProPILOT Assist system: ON
- Vehicle speed: Between approximately 30 and 144 km/h (20 and 90 MPH)

CANCEL CONDITION

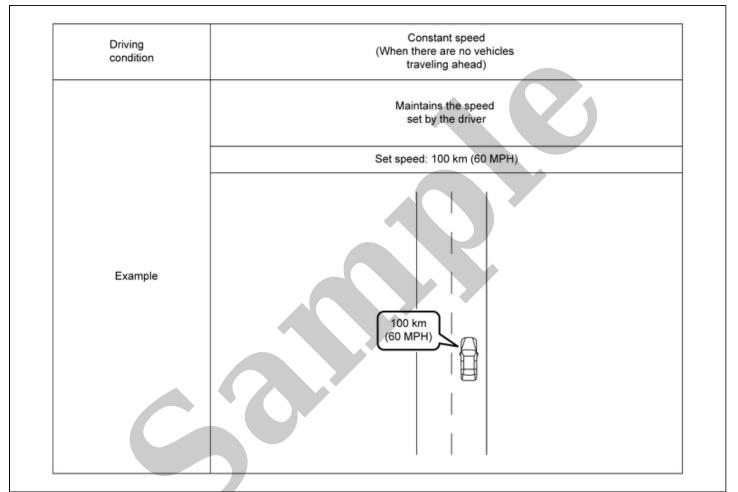
- · Push the CANCEL switch
- Tap the brake pedal (except at a standstill)
- Push the ProPILOT Assist switch to turn the system OFF (The ProPILOT Assist status indicator turn OFF)
- Any door is open
- · The driver's seat belt is not fastened
- The vehicle ahead is not detected and own vehicle is traveling below the speed of 25 km/h (15 MPH)
- Own vehicle has been stopped by the ProPILOT Assist system for approximately 3 minutes or longer
- The shift lever is not in the D (Drive) position or manual shift mode
- · The electronic parking brake is applied
- · The VDC system is turned OFF
- · The FEB applies harder braking
- VDC (including the traction control system) operates
- The SNOW mode or OFF-ROAD mode is selected (AWD models)
- · A wheel slips
- When distance measurement becomes impaired due to adhesion of dirt or obstruction to the distance sensor
- · When the radar signal is temporarily interrupted

FUNCTION DESCRIPTION

The conventional (fixed speed) cruise control mode allows driving at a speed between 30 and 144 km/h (20 and 90 MPH) without keeping own foot on the accelerator pedal.



Unlike the vehicle-to-vehicle distance control mode of the distance from the vehicle ahead is not performed. The ProPILOT Assist system warning and brake control are not performed.



SIEMD-7106231-02-000312498

OPERATION DESCRIPTION

• When the vehicle-to-vehicle distance control mode is OFF, pressing and holding the ProPILOT Assist switch for 1.5 seconds or more illuminates the speed control indicator and sets the control to the set wait condition.



When switching to vehicle-to-vehicle distance control mode, first turn the system OFF, and then press the ProPILOT Assist switch for less than 1.5 seconds to set the vehicle-to-vehicle distance control mode to the set wait condition.

- The system compares the current vehicle speed and the set vehicle speed, sends commands via CAN communication to the VCM, and controls the torque to bring the current speed closer to the set speed.
- When the system is in the set wait condition and the vehicle speed is between approximately 30 and 144 km/h (20 and 90 MPH), the vehicle speed at the time when the SET- switch is pressed is saved as the set vehicle speed, and control is started.
- ADAS control unit 2 performs the control as per the following:

Constant speed

Comparing the set vehicle speed with the current vehicle speed, transmits the command to VCM via CAN communication to reach the set vehicle speed, and controls electronic throttle control actuator.

OPERATION CONDITION

• Conventional (fixed speed) cruise control mode: ON



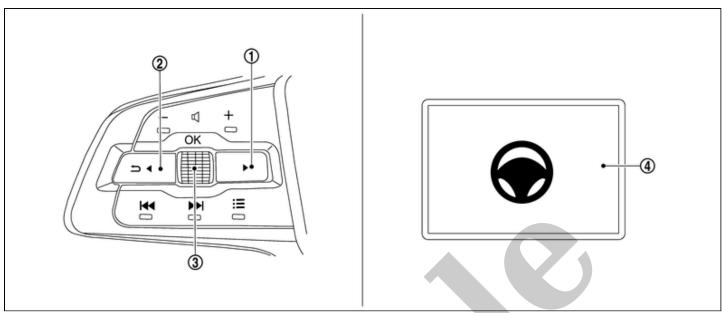
When the vehicle-to-vehicle distance control mode is OFF, pressing and holding the ProPILOT Assist switch for 1.5 seconds or more illuminates the speed control indicator and sets the control to the set wait condition.

• Vehicle speed: Between approximately 30 and 144 km/h (20 and 90 MPH)

CANCEL CONDITION

- · Push the CANCEL switch
- Tap the brake pedal
- Push the ProPILOT Assist switch to turn the system OFF (The ProPILOT Assist status indicator turn OFF)
- Any door is open
- · The driver's seat belt is not fastened
- Own vehicle is traveling below the speed of 25 km/h (15 MPH)
- The shift lever is not in the D (Drive) position or manual shift mode
- · The electronic parking brake is applied
- · The VDC system is turned OFF
- The FEB applies harder braking
- VDC (including the traction control system) operates
- The SNOW mode or OFF-ROAD mode is selected (AWD models)
- · A wheel slips

SWITCH NAME AND FUNCTION

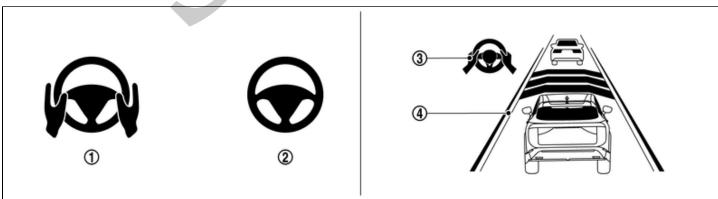


SIEMD-7106216-07-000349848

| No. | Switch name | Description |
|-----|------------------------|---|
| 1 | RIGHT SW | 1. Using the steering switch, select the [Settings] menu in the information display |
| 2 | LEFT/BACK SW | 2. Select the [Driver Assistance] menu |
| 3 | OK SW/Jog dial | 3. Select the [Steering Assist] item to turn the system ON/OFF |
| 4 | Steering assist switch | The steering wheel assistance function can be turned ON/OFF |

SYSTEM DISPLAY AND WARNING

SYSTEM DISPLAY



SIEMD-7106216-04-000349849

| No. | Function | Description |
|-----|--|---|
| 1 | Hands OFF warning lamp | Illuminates when the steering wheel is not operated or the driver takes own hands Off the steering wheel for a period of time |
| 2 | Steering assist status indicator/warning | The steering assist status is indicated by different colors and shapes |
| 3 | Steering assist status indicator | The steering assist status is indicated by different colors and shapes |

| No. | Function | Description |
|-----|-----------------------|--|
| 4 | Lane marker indicator | Notifies the driver of the lane detection status |

SYSTEM CONTROL CONDITION DISPLAY

When ProPILOT MAIN switch is OFF, pressing the ProPILOT MAIN switch for less than 1.5 seconds illuminates the displays the set vehicle speed, displays the set following distance, illuminates the steering assist indicator/warning, illuminates the steering indicator, and engages set wait condition.

| Condition | Display on information display |
|-------------------------|---|
| Steering Assist standby | Steering assist status indicator: Gray |
| | SIEMD-7106216-02-000383216 |
| Steering Assist active | Steering assist status indicator: Green SIEMD-7106216-03-000383217 |

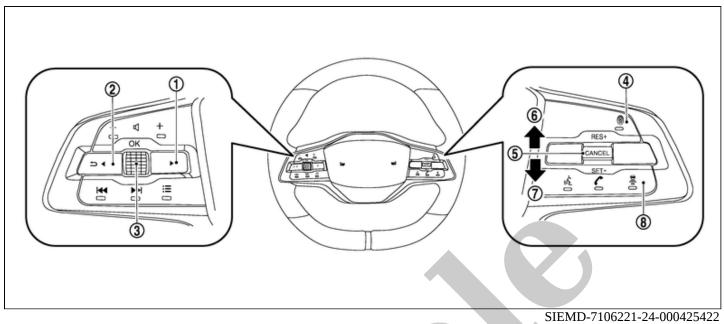
WARNING LAMP AND AUTOMATIC CANCELLATION DISPLAY

| Condition | Description | Display on information display | Warning lamp | Buzzer |
|---|--|-------------------------------------|-----------------|--------|
| When the driver releases the steering wheel | Steering assist continues NOTE: When the driver holds and operates the steering wheel again, the warnings turn OFF | Warning SIEMD-7106216-06-000184568 | ON | OFF |
| After the warning has been displayed, when the driver does not operate the steering | An audible alert sounds and the warning flashes in the information display NOTE: When the driver holds and operates the steering wheel | Warning SIEMD-7106216-08-000184569 | Blink | ON |

| Condition | Description | Display on information display | Warning lamp | Buzzer |
|-----------|---------------------------------|--------------------------------|-----------------|--------|
| | again, the warnings turn OFF | | | |



SWITCH NAME AND FUNCTION

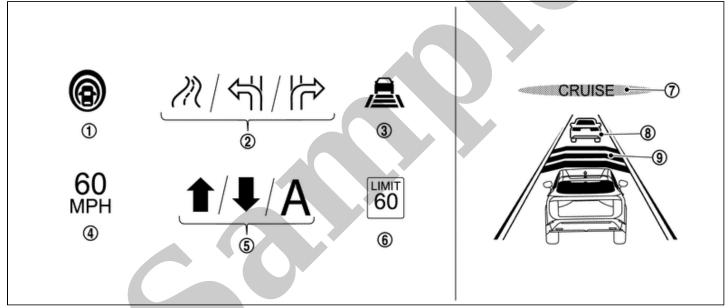


| No. | Switch name | Description | | |
|-----|--------------------------------|---|--|--|
| 1 | RIGHT switch | The setting of Speed Adjust by Route 1. Using the steering switch, select the [Settings] menu in the information display 2. Select the [Driver Assistance] menu 3. Select [Route speed adjust], and press the OK button to turn the system ON or OFF. The setting of Speed Limit Assist | | |
| 2 | LEFT/BACK switch | Using the steering switch, select the [Settings] menu in the information display Select the [Driver Assistance] menu Select [Spd. limit assist], and push the scroll dial to select [Auto] or [Manual] to enable (not activate) the system. To deactivate the system, select [Off]. The setting of Speed Limit Assist (Offset) Using the steering switch, select the [Settings] menu in the information display | | |
| 3 | OK switch/Jog dial | 2. Select the [Driver Assistance] menu 3. Select [Speed Offset] and push the scroll dial to select tolerance value NOTE: It is possible to set whether the speed limit should be accepted exactly, or with a tolerance of –10 km/h (-5 MPH) to +10 km/h (+5 MPH). | | |
| 4 | ProPILOT Assist MAIN switch | Master switch to activate the system (Press for less than 1.5 seconds) | | |
| (5) | CANCEL switch | Pressing the switch cancels ProPILOT Assist control | | |
| 6 | RES+ switch | Resumes set speed | | |

| No. | Switch name | Description | |
|-----|-----------------|--|--|
| | | Increases speed incrementally | |
| 0 | | Sets desired cruise speed Reduces speed incrementally | |
| 7 | SET- switch | NOTE: The minimum set speed is 30 km/h (20 MPH) | |
| 8 | DISTANCE switch | Changes the following distance from: Long, Middle, Short | |

SYSTEM DISPLAY AND WARNING

SYSTEM DISPLAY



SIEMD-7106221-01-000430608

| No. | Function | Description |
|-----|--|---|
| 1 | ProPILOT Assist status indicator | Indicates the status of ProPILOT Assist system |
| 2 | Road information indicator | Indicates when the system adjusts the speed depending on turns or exits |
| 3 | Speed control status indicator/warning | The vehicle speed control status is indicated by different colors and shapes |
| 4 | Set vehicle speed indicator | Indicates the set vehicle speed Indicates 30 km/h (20 MPH) when setting less than 30 km/h (20 MPH) |
| ⑤ | Speed Limit Assist indicator | Indicates the Speed Limit Assist activation mode or system operation |
| 6 | Detected speed limit sign indicator | Indicates the currently detected speed limit sign |
| 7 | ProPILOT Assist activation | Indicates once the ProPILOT Assist system is activated |
| 8 | Vehicle ahead detection indicator | Indicates whether it detects a vehicle ahead |
| 9 | Set distance indicator | Indicates the selected distance between vehicles set with the DISTANCE switch |

SYSTEM CONTROL CONDITION DISPLAY