

# 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.

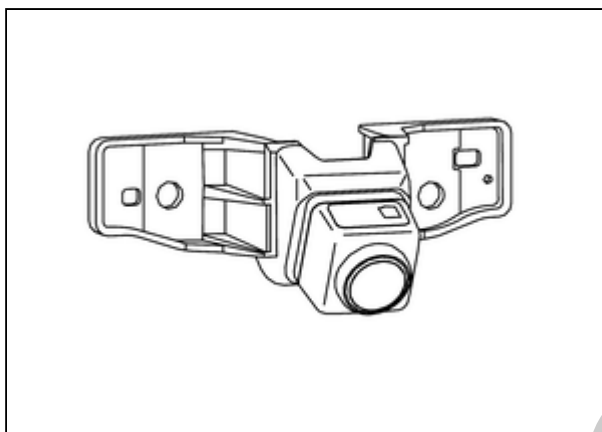
## 2016 Nissan Quest Service and Repair Manual

[Go to manual page](#)

Sample

## Component Function Within The System

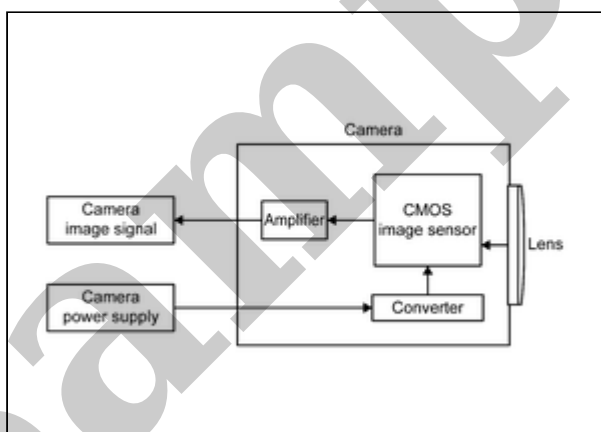
The front camera converts the vehicle front image into a digital code, and outputs it to around view monitor control unit.



SIEMD-7110476-03-000357582

## Individual Component Function

The front camera converts analog image information photographed through a lens into a digital code and outputs it.



SIEMD-7110476-02-SNIB1865GB

### Specification

Image pickup element	1/4-inch CMOS image sensor
Image output signal	LVDS
Effective number of pixels	Approx. 1,228,800 pixels (1280 × 960)
Minimum brightness	1 lx
Angle of view	<ul style="list-style-type: none"> <li>• Horizontal view angle: Approx. 213.0°</li> <li>• Vertical view angle: Approx. 151.0°</li> </ul>

## Component Operation

A power supply is supplied from around view monitor control unit in power switch ON position, and outputs the vehicle front image signal to the around view monitor control unit.



**NOTE:**

When a image is not displayed, the camera outputs a image signal to regular around view monitor control unit.

## Component Parts Location

---

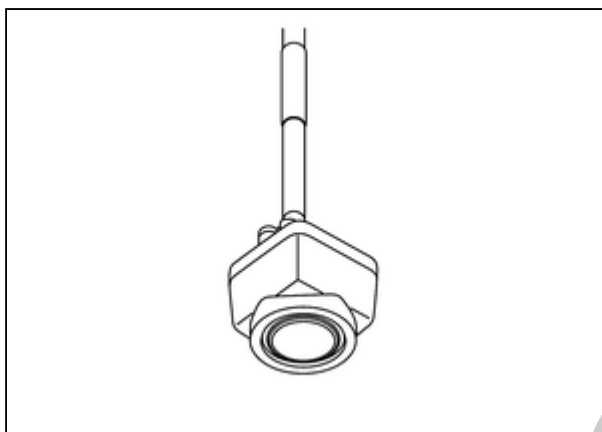
Front camera is installed to the front grille.

Refer to [Component Parts Location](#).

Sample

## Component Function Within The System

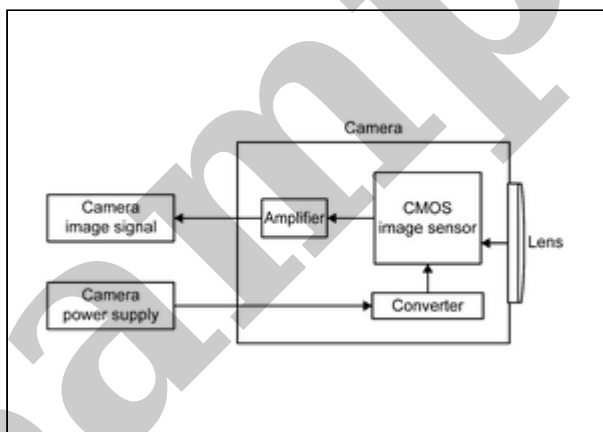
The side camera converts the vehicle side image into a digital code, and outputs it to around view monitor control unit.



SIEMD-7110429-01-000222769

## Individual Component Function

The side camera converts analog image information photographed through a lens into a digital code and outputs it.



SIEMD-7110429-02-SNIB1865GB

### Specification

Image pickup element	1/4-inch CMOS image sensor
Image output signal	LVDS
Effective number of pixels	Approx. 1,228,800 pixels (1280 × 960)
Minimum brightness	1 lx
Angle of view	<ul style="list-style-type: none"> <li>• Horizontal view angle: 213.0°</li> <li>• Vertical view angle: 151.0°</li> </ul>

## Component Operation

A power supply is supplied from around view monitor control unit in power switch ON position, and outputs the vehicle side image signal to the around view monitor control unit.



**NOTE:**

When a image is not displayed, the camera outputs a image signal to regular around view monitor control unit.

## Component Parts Location

---

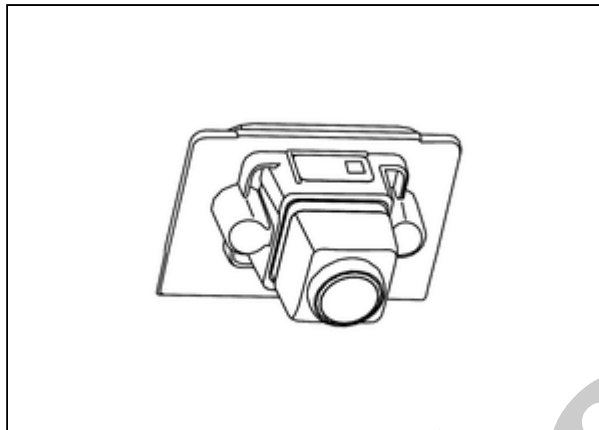
Side camera is installed to the left and right door mirror.

Refer to [Component Parts Location](#).

Sample

## Component Function Within The System

- The rear camera converts the vehicle rear image into a digital code, and outputs it to around view monitor control unit.

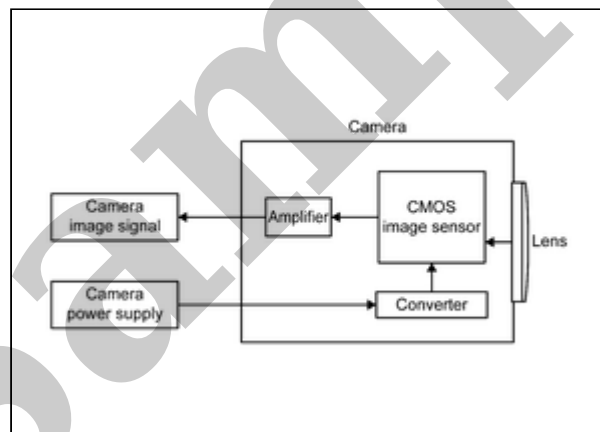


SIEMD-7110405-03-000357585

- With the mirror processing function, a mirror image is sent as if it is viewed by a rear view mirror.

## Individual Component Function

The rear camera converts analog image information photographed through a lens into a digital code and outputs it.



SIEMD-7110405-02-SNIB1865GB

### Specification

Image pickup element	1/4-inch CMOS image sensor
Image output signal	LVDS
Effective number of pixels	Approx. 1,228,800 pixels (1280 × 960)
Minimum brightness	1 lx
Angle of view	<ul style="list-style-type: none"> <li>Horizontal view angle: 213.0°</li> <li>Vertical view angle: 151.0°</li> </ul>
Image	With mirror processing function

## Component Operation

A power supply is supplied from around view monitor control unit in power switch ON position, and outputs the vehicle rear image signal to the around view monitor control unit.



**NOTE:**

When a image is not displayed, the camera outputs a image signal to regular around view monitor control unit.

## Component Parts Location

---

Rear camera is installed to the center of back door.

Refer to [Component Parts Location](#).

Sample



## PRECAUTIONS FOR THE HANDLING OF CAMERA SYSTEM

---

- The camera system assists the detection of obstacles. When operating the vehicle, the safety must be confirmed and ensured directly by sight, using the mirrors.
- Distance shown by vehicle width guiding lines and predicted course lines may differ from actual distance depending on the number of passengers and fuel capacity. For this reason, these lines must be used only as a guide.
- With the camera lens characteristics, a distance shown on the screen may look different from actual distance or obstacles may look deformed.
- The camera is a precision instrument. Always prevent a strong impact, such as high-pressure car wash. Failure to do this results in a malfunction.
- Adhesion of dirt, rain drops, and snow to the camera lens may lower the sharpness of camera image or cause an improper operation in MOD (Moving Object Detection) function or parking frame recognition function. These adherents must be removed with a soft wet cloth first, then with a dry soft cloth.
- Never damage the camera. Failure to do this may affect camera images.

## PRECAUTIONS FOR THE HANDLING OF MOD (MOVING OBJECT DETECTION)

---

- MOD (Moving Object Detection) does not inform the driver of stationary objects.
- MOD (Moving Object Detection) detects a moving object by processing image data of an image shown on the display. The detection performance of a moving object is limited.
- MOD (Moving Object Detection) may not operate properly when any of the following conditions is satisfied:
  - Color and brightness of a moving object are similar to those of its background.
  - Existence of blinking light, such as turn signal lamp
  - Reflection of a strong light, such as head lamp light from other vehicles or sun light.
  - Inappropriate orientation of camera due to folded mirror.
  - Non-moving objects, such as water droplets dripping on the camera lens, white smoke from the muffler or moving shadow may be detected.
  - Detection may not be performed properly depending on the speed, direction, distance, and shape of moving object.

## CONSULT FUNCTIONS

CONSULT performs the following functions via the communication with the around view monitor control unit.

Diagnosis mode	Description
Self Diagnostic Result	Around view monitor control unit and AV communication circuit connection diagnosis is performed. Current and previous malfunctions are displayed collectively.
Data Monitor	Diagnosis of vehicle signal that is received by around view monitor control unit can be performed.
Work support	<ul style="list-style-type: none"> <li>• Display of predicted course line can be switched to ON/OFF.</li> <li>• Correction of turning radius display can be performed.</li> <li>• MOD function can be switched to ON/OFF.</li> <li>• Calibration and initialization of each camera can be performed.</li> <li>• Fine tuning of Birds-Eye view can be performed.</li> <li>• MAC KEY can be writing.</li> </ul>
ECU Identification	Around view monitor control unit part number, software version, and hardware version can be identified.
Replace ECU	Writes the vehicle specification when replacing around view monitor control unit.

## SELF DIAGNOSTIC RESULT

Refer to [DTC Index](#).

- In CONSULT self-diagnosis, self-diagnosis results and error history are displayed collectively.
- The current malfunction indicates “CRNT”. The past malfunction indicates “PAST”.

## Freeze Frame Data (FFD)

The following vehicle status is recorded when DTC is detected and is displayed on CONSULT.

Item name [Unit]	Display content
ODO/TRIP METER [km]	Total driving distance (odometer value) upon DTC detection is displayed.
DTC occurrence Counter [count]	Displays the number of times DTC was detected
VehicleSpeed1 [km/h]	Displays the vehicle speed when DTC is detected.
Power supply state	Displays the power supply status when DTC is detected.
GADE	Displays the DTC detection function status
AVM Gear Engaged	Displays the shift position when DTC is detected.

## DATA MONITOR



### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

- Displays the status of the following vehicle signals inputted into the around view monitor control unit.
- For each signal, actual signal can be compared with the condition recognized on the system.

Display Item	Remarks
Reverse signal [ON/OFF]	Receiving status of shift position (reverse) signal received from VCM is displayed by ON/OFF.
Camera switch signal [ON (PUSHED)/OFF (RELEASED)]	Receiving status of camera switch signal received