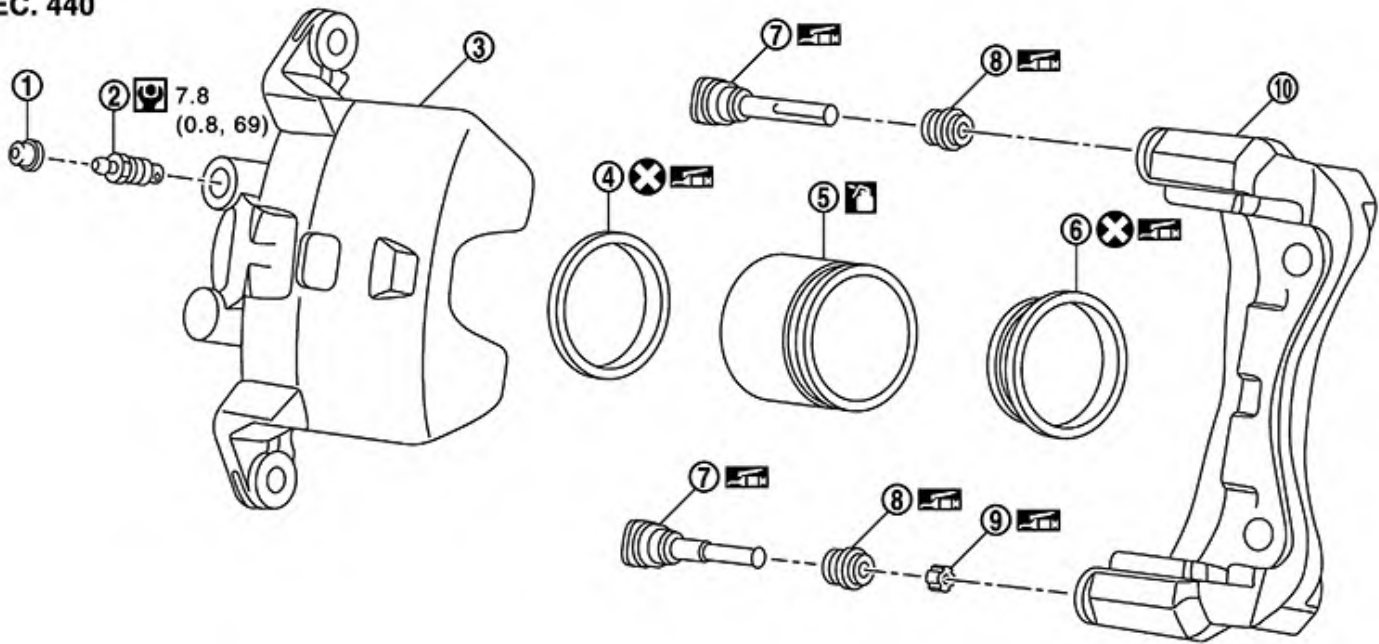


Components shown in an illustration may be identified by a circled number. When this style of illustration is used, the text description of the components will follow the illustration.

SEC. 440



GUID-NISJPFA0511GB

1.	Cap	2.	Bleeder valve	3.	Cylinder body
4.	Piston seal	5.	Piston	6.	Piston boot
7.	Sliding pin	8.	Sliding pin boot	9.	Bushing
10.	Torque member				
	: Apply rubber grease.				
	: Apply brake fluid.				
	: N·m (kg-m, in-lb)				
	: Always replace after every disassembly				

Symbols

①

Connector No.

M3

②

Connector Name

UNIT

③

Connector Type

NS06FW-M2

④

Connector Color

WHITE



⑤

⑥

3		2	1	
8	7	6	5	4

Terminal No.	Color of Wire	Signal Name
1	W	BAT
2	G	SWITCH B
4	V	SWITCH A
5	L	CAN-H
6	P	CAN-L

Connector No.

M4

Connector Name

UNIT

Connector Type

NS10FW-CS

Connector Color

WHITE



12	11		10	9	
18	17	16	15	14	13

Terminal No.	Color of Wire	Signal Name
9	B	GND
10	B	GND

GUID-NISAWAWA0024GB

Description

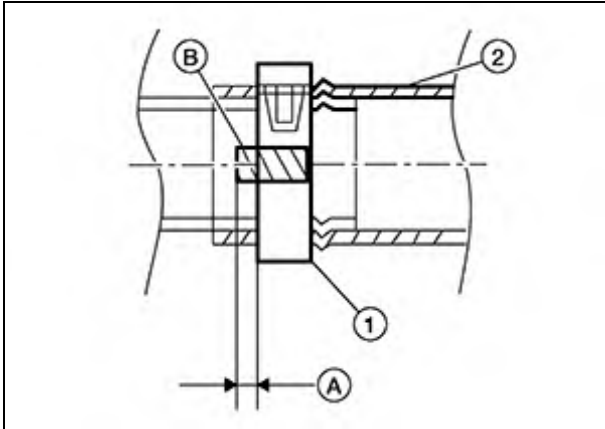
No.	Item	Description	
1	Connector number	- Alphabetic characters show to which harness the connector is placed. - Numeric characters show the identification number of connectors.	
2	Connector type	①: Connector model ②: Cavity ③: Male (M) and female (F) terminals ④: Connector color ⑤: Special type	Example: RS 04 F G - GY ① ② ③ ④ ⑤ GUID-NISJPMIA0113GB
3	Connector color	This means the color of a connector.	
4	Terminal number	This means the terminal number of a connector.	
5	Wire color	This shows a code for the color of the wire. B = Black W = White R = Red G = Green L = Blue LA = Lavender OR or O = Orange P = Pink PU or V (Violet) = Purple GY or GR = Gray	

EXHAUST MANIFOLD

Unit: mm (in)

Items	Limit
Surface distortion	0.3 (0.012)

- To install hose clamp (1), check that dimension (A) from end of paint mark (B) on hose (2) to edge of hose clamp (1) is within specification.



GUID-NISALBIA3090ZZ

(A)

: ± 1 mm**CAUTION:**

- When installing do not damage or scratch radiator core or condenser.
- Replace water hose clamp if it is removed.
- Use only Genuine NISSAN screws for cooling fan assembly and strictly follow tightening torque. Over tightening may damage radiator.

INSPECTION AFTER INSTALLATION

- Before starting engine, check oil/fluid levels, including engine coolant and engine oil. If less than required quantity, fill to specified level. Refer to [Fluids and Lubricants](#).
- Use procedure below to check for fuel leakage.
- Turn ignition switch ON (with engine stopped). With fuel pressure applied to fuel piping, check for fuel leakage at connection points.
- Start engine. With engine speed increased, check again for fuel leakage at connection points.
- Run engine to check for unusual noise and vibration.

Note:

If hydraulic pressure inside timing chain tensioner drops after removal and installation, slack in guide may generate a pounding noise during and just after engine start. However, this is normal. Noise will stop after hydraulic pressure rises.

- Warm up engine thoroughly to make sure there is no leakage of fuel, exhaust gas, or any oils/fluids, including engine oil and engine coolant.
- Bleed air from passages in lines and hoses, such as in cooling system.
- After cooling down engine, again check oil/fluid levels, including engine oil and engine coolant. Refill to specified level, if necessary.
- Summary of inspection items:

1. CHECK INTAKE MANIFOLD RUNNER CONTROL VALVE MOTOR OUTPUT SIGNAL CIRCUIT

1. Disconnect intake manifold runner control valve motor harness connector.
2. Check the continuity between intake manifold runner control valve motor harness connector and ECM harness connector.

Intake manifold runner control valve motor		ECM		Continuity
Connector	Terminal	Connector	Terminal	
F17	1	F29	6	Not existed
			11	Existed
	2		6	Existed
			11	Not existed

3. Also check harness for short to ground and short to power.

Is the inspection result normal?

YES >>

[GO TO 2.](#)

NO >>

Repair or replace malfunctioning part.

2. CHECK INTAKE MANIFOLD RUNNER CONTROL VALVE

1. Check intake manifold runner control valve. refer to [Component Inspection](#).

Is the inspection result normal?

YES >>

[GO TO 3.](#)

NO >>

Replace intake manifold. Refer to [Removal and Installation](#).

3. CHECK ECM POWER SUPPLY AND GROUND CIRCUIT

1. Check ECM power supply and ground circuit. Refer to [Diagnosis Procedure](#).

Is the inspection result normal?

YES >>

INSPECTION END

NO >>

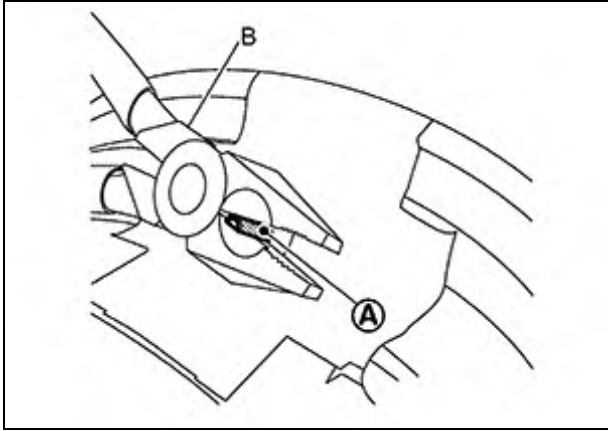
CONSULT DATA MONITOR STANDARD VALUE

- In CONSULT, electric shift timing or lock-up timing, i.e. operation timing of each solenoid valve, is displayed. Therefore, if there is an obvious difference between the shift timing estimated from a shift shock (or engine speed variations) and that shown on the CONSULT, the mechanism parts (including the hydraulic circuit) excluding the solenoids and sensors may be malfunctioning. In this case, check the mechanical parts following the appropriate diagnosis procedure.
- Shift point (gear position) displayed on CONSULT slightly differs from shift pattern described in Service Manual. This is due to the following reasons.
 - Actual shift pattern may vary slightly within specified tolerances.
 - While shift pattern described in Service Manual indicates start of each shift, CONSULT shows gear position at end of shift.
 - The solenoid display (ON/OFF) on CONSULT is changed at the start of gear shifting. In contrast, the gear position display is changed at the time when gear shifting calculated in the control unit is completed.



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

Monitor item	Condition	Value/Status (Approx.)
VSP SENSOR	While driving	Almost same as the speedometer display.
ESTM VSP SIG	While driving	Almost same as the speedometer display.
PRI SPEED SEN	In driving (lock-up ON)	A value obtained from dividing engine speed by counter gear ratio
SEC REV SENSOR	Auxiliary gearbox: 1GR	Approximately twice the “VHCL/S SE (RPM)”
	Auxiliary gearbox: 2GR	Almost same as the “VHCL/S SE (RPM)”
VHCL/S SE (REV)	Auxiliary gearbox: 1GR	Approximately half of the “SEC REV SENSOR”
	Auxiliary gearbox: 2GR	Almost same as the “SEC REV SENSOR”
ENG SPEED SIG	Engine running	Almost same reading as tachometer
LINE PRESSURE SEN	—	—
ATF TEMP SEN	CVT fluid: Approx. 20°C (68°F)	2.01 – 2.05 V
	CVT fluid: Approx. 50°C (122°F)	1.45 – 1.50 V
	CVT fluid: Approx. 80°C (176°F)	0.90 – 0.94 V

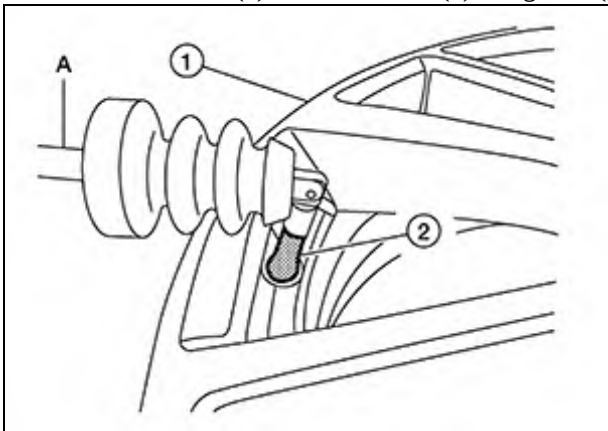


GUID-NISJSEIA1393ZZ

CAUTION:

Do not damage the wheel.

12 Remove the valve (2) from the wheel (1) using Tool (A).



GUID-NISALEIA0323ZZ

Tool (A) number

: J-51980

CAUTION:

Do not damage the wheel.

INSTALLATION

1 Clean the valve stem hole in the wheel.

CAUTION:

Make sure there are no burrs, foreign substances, or indications of damage to the wheel.

2 Apply a suitable non-silicone lubricant to the surface of the valve that touches the wheel and to the valve stem hole in the wheel.

CAUTION:

- **Do not reuse valve.**
- **Do not use silicone lubricant. Use of silicone lubricant will deteriorate the tire and wheel.**

Displayed item	Possible cause	Service procedure
Alignment condition is not ready.	▪ DTC is detected. ▪ The position of the target board is not correct. ▪ Vehicle is moving.	Check the vehicle condition and perform radar alignment again.
Alignment condition is not ready. (Stop the vehicle.)	Vehicle is moving.	Stop the vehicle and perform radar alignment again.
Target is not detected.	▪ A target is not-yet-placed. (The distance sensor cannot detect target) ▪ The position of the target board is not correct. ▪ The position of the distance sensor is not correct.	Check the target board condition and perform radar alignment again.
Sensor malfunction.	Distance sensor malfunction.	Check the vehicle condition and perform radar alignment again.



Replace distance sensor if “Sensor malfunction.” is repeatedly indicated.

8. Confirm displayed value.

Displayed item	Monitor item	Reference value
Alignment completed.	FACTORY AIM L/R	Less than ± 3.00 deg
	FACTORY AIM U/D	Less than ± 3.00 deg
	AIMING VALUE L/R	Less than ± 3.00 deg
	AIMING VALUE U/D	Less than ± 3.00 deg

- Within reference value: GO TO 9.
- Outside of reference value: Check the target board condition and perform radar alignment again.

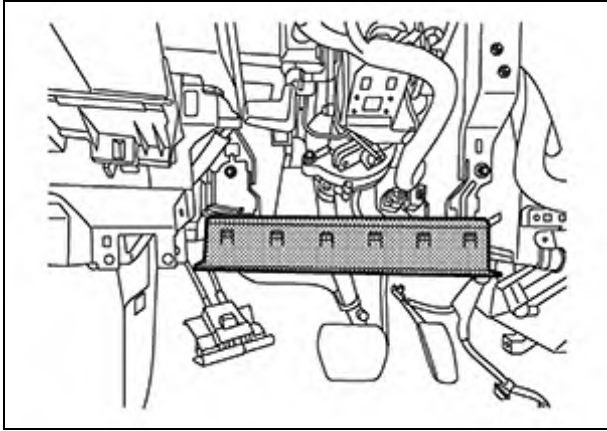


- **Check the condition of the distance sensor installation.**
- **Check the vehicle for damage.**

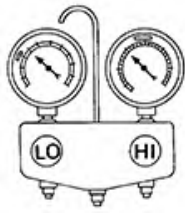
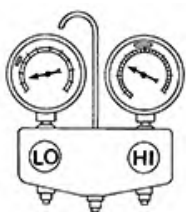
Left Knee Air Bag Module

GUID-A4AC3D3F-919D-4855-90F3-A1D74087341E

The left knee air bag module is single stage and located in the instrument panel assembly below the steering wheel. It operates with the SRS system in a frontal collision exceeding a specified level.



GUID-TGALHIA0116ZZ

Gauge indication	Refrigerant cycle	Probable cause	Corrective action
GUID-NISAC360A			
High-pressure side is too low and low-pressure side is too high.  GUID-NISAC356A	High- and low-pressure sides become equal soon after compressor operation stops.	Compressor pressure operation is improper. ↓ Damaged inside compressor packings.	Replace compressor.
	No temperature difference between high- and low-pressure sides.	Compressor pressure operation is improper. ↓ Damaged inside compressor packings.	Replace compressor.
Both high- and low-pressure sides are too low.  GUID-NISAC353A	- There is a big temperature difference between liquid tank outlet and inlet. Outlet temperature is extremely low. - Liquid tank inlet and expansion valve are frosted.	Liquid tank inside is slightly clogged.	- Replace liquid tank. - Check lubricant for contamination.
	- Expansion valve inlet temperature is extremely low as compared with areas near liquid tank. - Expansion valve inlet is frosted. - Temperature difference occurs somewhere in high-pressure side.	High-pressure pipe located between liquid tank and expansion valve is clogged.	- Check and repair malfunctioning parts. - Check lubricant for contamination.
	Expansion valve and liquid tank are warm or slightly cool when touched.	Low refrigerant charge. ↓ Leaking fittings or components.	Check refrigerant for leaks. Refer to Leak Test .
	There is a big temperature difference between expansion valve inlet and outlet while the valve itself is frosted.	Expansion valve closes a little compared with the specification. ↓ 1. Improper expansion valve adjustment.	- Remove foreign particles by using compressed air. - Replace expansion valve. - Check lubricant for contamination.

Regarding Wiring Diagram information, refer to [Wiring Diagram](#).

1. CHECK SYMPTOM

1. Check symptom (A or B).

Symptom	
A	Blower motor does not operate at any dial position.
B	Blower motor does not operate at any dial position other than 4th, or operation speed is not normal.

Which symptom is detected?

A>>

[GO TO 2.](#)

B>>

[GO TO 7.](#)

2. CHECK FUSE

1. Turn ignition switch OFF.
2. Check 15A fuses [Nos. 22 and 24, located in fuse block (J/B)].



Note:

Refer to [Wiring Diagram](#).

Is the inspection result normal?

YES>>

[GO TO 3.](#)

NO>>

Replace the blown fuse after repairing the affected circuit.

3. CHECK BLOWER MOTOR POWER SUPPLY

1. Disconnect blower motor connector.
2. Turn ignition switch ON.
3. Check voltage between blower motor harness connector and ground.

All doors do not lock/unlock using Intelligent Key button.



Before starting diagnosis check that vehicle condition is as shown in “Conditions of vehicle”, and check each symptom.

SYMPTOM TABLE (BOTH INTELLIGENT KEYS HAVE THE SAME SYMPTOMS)

Door lock operation (remote keyless entry)	Door lock operation (request switch) or back door open operation (opener switch of back door panel)	Engine started with push-button ignition switch operation (registered Intelligent Key is within the detection area of inside key antenna)	Engine started with push-button ignition switch operation (registered Intelligent Key placed next to push-button ignition switch)
NG	OK	OK	OK

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

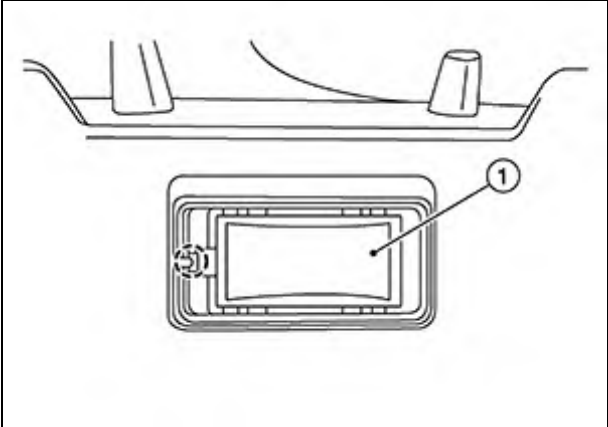
Registered Intelligent Key is within the detection area.

DIAGNOSIS PROCEDURE

Refer to [Diagnosis Procedure](#).

REMOVAL

1 Using a suitable tool release the pawl on the cargo lamp (1).



GUID-NISALLIA2101ZZ

	: Pawl
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2 Disconnect the harness connector from the cargo room lamp and remove.

INSTALLATION

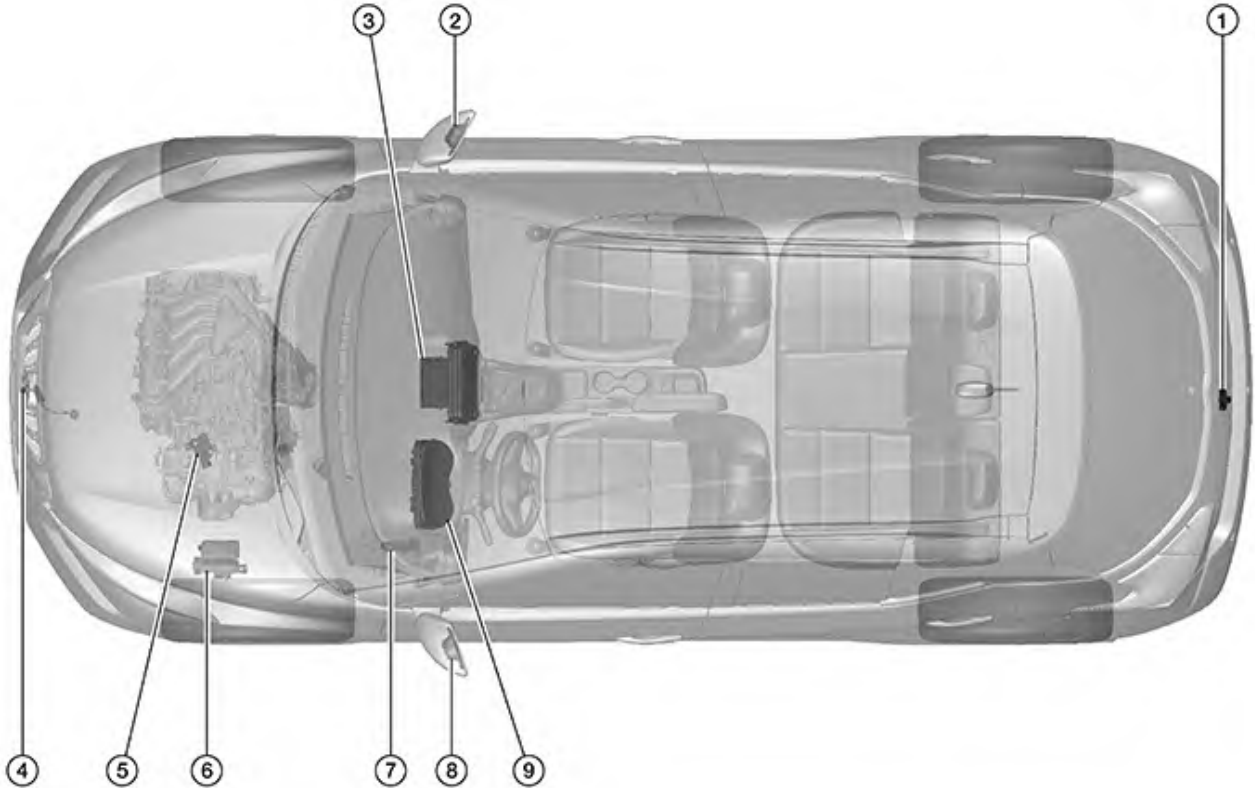
Installation is in the reverse order of removal.

Bulb Specifications

GUID-83B954AB-453E-4543-9879-538DA48E5963

Item	Wattage (W)*
Front room/map lamp	10
Interior room lamp	8
Cargo room lamp	5

*:Always check with the parts department for the latest parts information.



GUID-TGALNIA0170ZZ

No.	Component	Function
1.	Rear view camera	Refer to Rear View Camera .
2.	Door mirror RH	Refer to Side Camera .
3.	AV control unit	Refer to AV Control Unit .
4.	Front camera	Refer to Front Camera .
5.	Transmission range switch	Refer to Transmission Range Switch .
6.	IPDM E/R	Refer to Component Parts Location .
7.	Around view monitor control unit	Refer to Around View Monitor Control Unit .
8.	Door mirror LH	Refer to Side Camera .
9.	Combination meter	Refer to Combination Meter .