FRONT WHEEL ALIGNMENT

ELS0003X

2WD

Item			Standard	
Wheel size			18 inch	20 inch
Camber Degree minute (Decimal degree)		Minimum	–0° 55′ (–0.91°)	–1° 00′ (–1.00°)
		Nominal	–0° 10′ (–0.17°)	–0° 15′ (–0.25°)
		Maximum	0° 35′ (0.58°)	0° 30′ (0.50°)
		Left and right difference	0° 33′ (0.55°) or less	
Caster Degree minute (Decimal degree)		Minimum	3° 10′ (3.17°)	
		Nominal	4° 30′ (4.50°)	
		Maximum	5° 50′ (5.83°)	
		Left and right difference	0° 39′ (0.65°) or less	
Kingpin inclination Degree minute (Decimal degree)		Minimum	6° 25′ (6.42°)	6° 30′ (6.50°)
		Nominal	7° 10′ (7.17°)	7° 15′ (7.25°)
		Maximum	7° 55′ (7.91°)	8° 00′ (8.00°)
Toe-in	Total toe-in Distance	Minimum	Out 1 mm (Out 0.03 in)	
		Nominal	In 1 mm (In 0.04 in)	
		Maximum	In 3 mm (In 0.11 in)	
	Total toe-angle Degree minute (Decimal degree)	Minimum	Out 0° 04′ 48″ (Out 0.08°)	
		Nominal	In 0° 04′ 48″ (In 0.08°)	
		Maximum	In 0° 14′ 24″ (In 0.24°)	

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

AWD

Item			Standard
Camber Degree minute (Decimal degree)		Minimum	–0° 50′ (–0.83°)
		Nominal	–0° 05′ (–0.08°)
		Maximum	0° 40′ (0.66°)
		Left and right difference	0° 33′ (0.55°) or less
Caster Degree minute (Decimal degree)		Minimum	2° 40′ (2.67°)
		Nominal	4° 00′ (4.00°)
		Maximum	5° 20′ (5.33°)
		Left and right difference	0° 39′ (0.65°) or less
Kingpin inclination Degree minute (Decimal degree)		Minimum	6° 20′ (6.34°)
		Nominal	7° 05′ (7.08°)
		Maximum	7° 50′ (7.83°)
Toe-in	Total toe-in Distance	Minimum	Out 1 mm (Out 0.03 in)
		Nominal	In 1 mm (In 0.04 in)
		Maximum	In 3 mm (In 0.11 in)
	Total toe-angle Degree minute (Decimal degree)	Minimum	Out 0° 04′ 48″ (Out 0.08°)
		Nominal	In 0° 04′ 48″ (In 0.08°)
		Maximum	In 0° 14′ 24″ (In 0.24°)

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

Relation between Illustrations and Descriptions

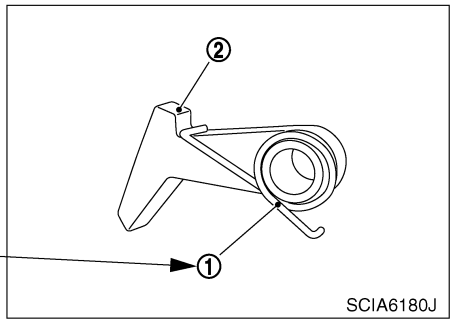
INFOID:0000000010101868

The following sample explains the relationship between the part description in an illustration, the part name in the text and the service procedures.

< Example 1 >

1. Remove return spring (1) from parking pawl (2).

The identifier number of the part name in the text is consistent with the identifier part number in the illustration.

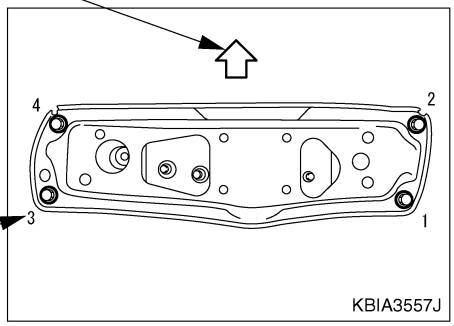


Direction mark

< Example 2 >

- : Vehicle front
- Tighten rear member mounting bolts following the numerical order shown in the illustration.
- Note : View upward

The numbers in the illustration are consistent with the service operation instructions.



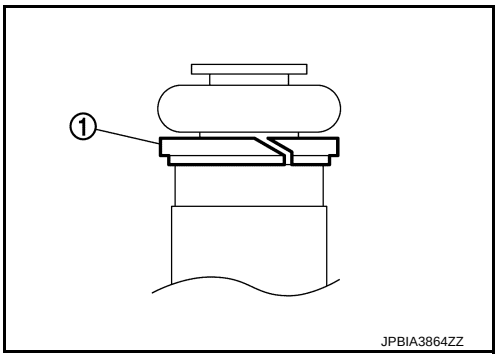
SAIA0519E

Components

INFOID:0000000010101869

- **THE LARGE ILLUSTRATIONS** are exploded views (see the following) and contain tightening torques, lubrication points, section number of the **PARTS CATALOG** (e.g. SEC. 440) and other information necessary to perform repairs.
  The illustrations should be used in reference to service matters only. When ordering parts, refer to the appropriate **PARTS CATALOG**.
  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.

- **Check that O-ring and its mating part are free of foreign material.**
- **When installing O-ring, be careful not to scratch it with tool or fingernails. Also be careful not to twist or stretch O-ring. If O-ring was stretched while it was being attached, never insert it quickly into fuel rail.**
- **Insert new O-ring straight into fuel rail. Never decenter or twist it.**
- **Always install the back up ring (1) in the right direction as instructed.**



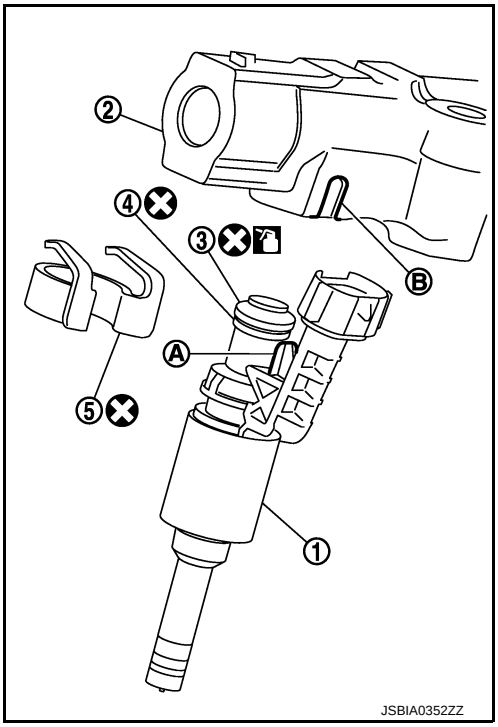
4. Install fuel injector (1) to fuel rail (2) as per the following:

   3 : O-ring (blue)
   4 : Back up ring

a. Install fuel injector holder (5) to fuel injector.
CAUTION:
- **Never reuse holder. Replace it with a new one.**
- **Be careful to keep fuel injector holder from interfering with O-ring. If interference occurs, replace O-ring.**

b. Insert fuel injector into fuel rail with fuel injector holder attached.
- Insert it while matching it to the axial center.
- Insert so that protrusion (A) of fuel injector is aligned to cutout (B).

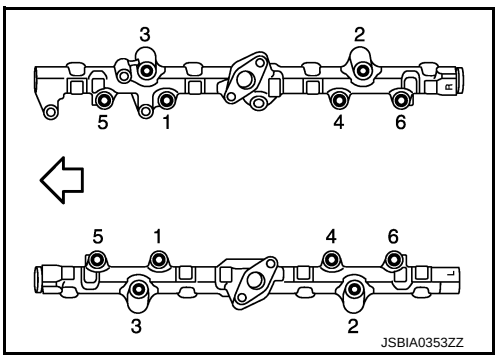
c. Check that installation is complete by checking that fuel injector does not rotate or come off.
- Check that protrusions of fuel injectors and fuel rail are aligned with cutouts of clips after installation.



5. Insert insulator into mounting hole of fuel injector of cylinder head.
6. Install fuel rail and fuel injector assembly to cylinder head.
- Tighten mounting bolts and nuts in two steps in numerical order as shown in the figure.

⇦ : Engine front

1st step : 10.0 N·m (1.0 kg-m, 7.4 ft-lb)
2nd step : 20.5 N·m (2.1 kg-m, 15 ft-lb)



7. Connect injector harness connector.
8. Install fuel feed tube (bank side) to fuel rail.
CAUTION:
- **Never reuse fuel feed tube (bank side).**
- **When installing fuel feed tube (bank side) to fuel rail, press the flange part to install the tube.**
- **Handle O-ring with bare hands. Never wear gloves.**

NO >> Replace EVAP control system pressure sensor. Refer to FL-14, "EXCEPT FOR MEXICO : Exploded View".

9.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000010096343

1.CHECK EVAP CONTROL SYSTEM PRESSURE SENSOR

1. Turn ignition switch OFF.
2. Remove EVAP control system pressure sensor with its harness connector.
   Always replace O-ring with a new one.
3. Install a vacuum pump to EVAP control system pressure sensor.
4. Turn ignition switch ON and check output voltage between ECM harness connector terminals under the following conditions.

ECM			Condition [Applied vacuum kPa (kg/cm^2, psi)]	Voltage (V)
Connector	+	–		
	Terminal	Terminal		
M107	102	112	Not applied	1.8 - 4.8
			-26.7 (-0.272, -3.87)	2.1 to 2.5 lower than above value

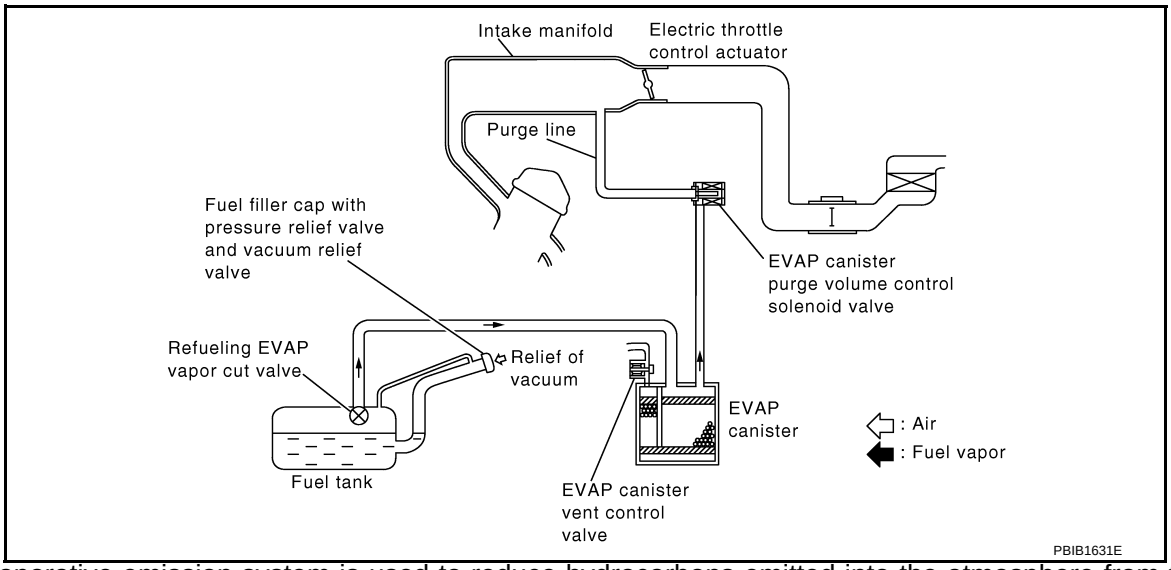
CAUTION:

- **Always calibrate the vacuum pump gauge when using it.**
- **Never apply below -93.3 kPa (-0.952 kg/cm^2, -13.53 psi) or pressure over 101.3 kPa (1.033 kg/cm^2, 14.69 psi).**

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace EVAP control system pressure sensor. Refer to FL-14, "EXCEPT FOR MEXICO : Exploded View".

SYSTEM DESCRIPTION

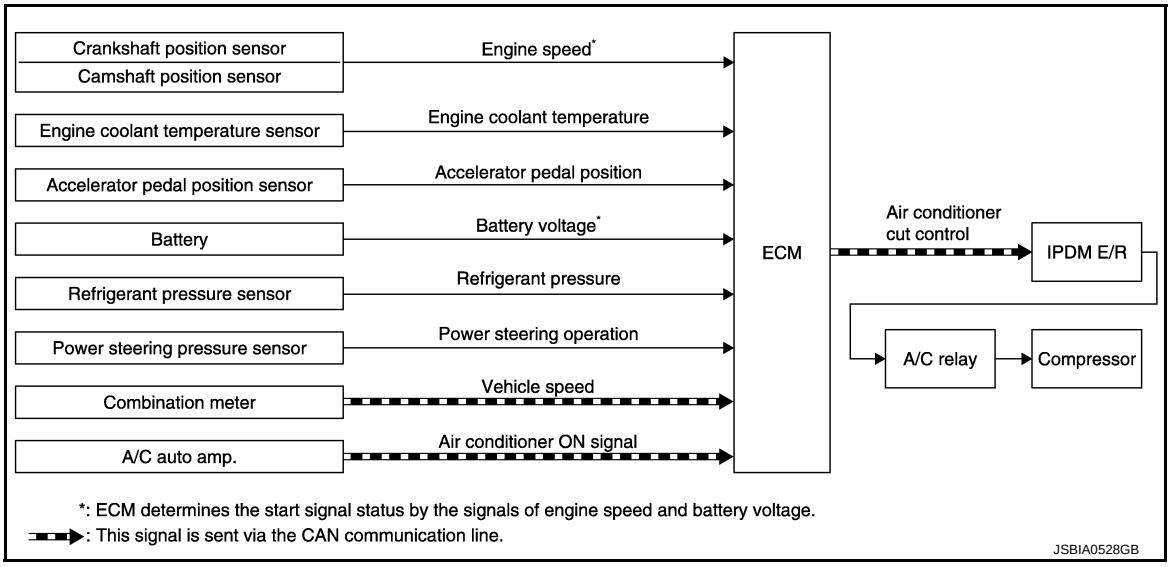


The evaporative emission system is used to reduce hydrocarbons emitted into the atmosphere from the fuel system. This reduction of hydrocarbons is accomplished by activated charcoals in the EVAP canister.
The fuel vapor in the sealed fuel tank is led into the EVAP canister which contains activated carbon and the vapor is stored there when the engine is not operating or when refueling to the fuel tank.
The vapor in the EVAP canister is purged by the air through the purge line to the intake manifold when the engine is operating. EVAP canister purge volume control solenoid valve is controlled by ECM. When the engine operates, the flow rate of vapor controlled by EVAP canister purge volume control solenoid valve is proportionally regulated as the air flow increases.
EVAP canister purge volume control solenoid valve also shuts off the vapor purge line during decelerating and idling.

AIR CONDITIONING CUT CONTROL

AIR CONDITIONING CUT CONTROL : System Diagram

INFOID:0000000010097000



AIR CONDITIONING CUT CONTROL : System Description

INFOID:0000000010097001

INPUT/OUTPUT SIGNAL CHART

DTC No.	VVEL control module			VVEL actuator motor		Continuity
	Bank	Connector	Terminal	Connector	Terminal	
P100A	1	E15	12	F73	1	Existed
					2	Not existed
			25		1	Not existed
					2	Existed
P100B	2		2	F71	1	Existed
					2	Not existed
			15		1	Not existed
					2	Existed

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.DETECT MALFUNCTIONING PART

Check the following.
- Harness for open or short between VVEL actuator motor and VVEL control module
- Loose or poor connection for each connector and harness

>> Repair open circuit, short to ground or short to power in harness or connectors.

3.CHECK VVEL ACTUATOR MOTOR

Refer to EC-1409, "Component Inspection (VVEL ACTUATOR MOTOR)".

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4.REPLACE VVEL ACTUATOR SUB ASSEMBLY

Replace VVEL actuator sub assembly. Refer to EM-253, "Exploded View".

>> INSPECTION END

5.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace.

6.REPLACE VVEL CONTROL MODULE

Replace VVEL control module. Refer to EC-1567, "Removal and Installation".

>> GO TO 7.

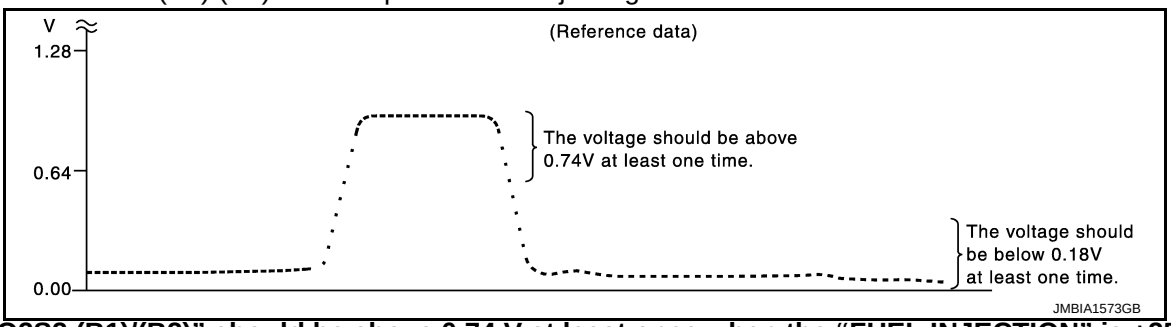
7.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Erase 1st trip DTC.
3. Perform DTC Confirmation Procedure.
   See EC-1407, "DTC Logic".

Is the DTC P100A or P100B displayed again?

YES >> GO TO 8.
NO >> INSPECTION END

5. Check “HO2S2 (B1)/(B2)” at idle speed when adjusting “FUEL INJECTION” to ±25%.



“HO2S2 (B1)/(B2)” should be above 0.74 V at least once when the “FUEL INJECTION” is +25%.
“HO2S2 (B1)/(B2)” should be below 0.18 V at least once when the “FUEL INJECTION” is −25%.

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 6.

3. CHECK HEATED OXYGEN SENSOR 2-I

WITHOUT CONSULT

1. Start engine and warm it up to the normal operating temperature.
2. Turn ignition switch OFF and wait at least 10 seconds.
3. Start engine and keep the engine speed between 3,500 and 4,000 rpm for at least 1 minute under no load.
4. Let engine idle for 1 minute.
5. Check the voltage between ECM harness connector terminals under the following conditions.

ECM			Condition	Voltage
Connector	+	–		
	Terminal	Terminal		
F111	96 [HO2S2 (bank 1)]	100	Revving up to 4,000 rpm under no load at least 10 times	The voltage should be above 0.74 V at least once during this procedure. The voltage should be below 0.18 V at least once during this procedure.
	87 [HO2S2 (bank 2)]			

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 4.

4. CHECK HEATED OXYGEN SENSOR 2-II

Check the voltage between ECM harness connector terminals under the following conditions.

ECM			Condition	Voltage
Connector	+	–		
	Terminal	Terminal		
F111	96 [HO2S2 (bank 1)]	100	Keeping engine at idle for 10 minutes	The voltage should be above 0.74 V at least once during this procedure. The voltage should be below 0.18 V at least once during this procedure.
	87 [HO2S2 (bank 2)]			

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 5.

5. CHECK HEATED OXYGEN SENSOR 2-III

Check the voltage between ECM harness connector terminals under the following conditions.

- Determine required line pressure, shifting point, lock-up operation, etc.
- Transmit required output signals to the respective solenoids.

A/T CONTROL SYSTEM : Fail-Safe

INFOID:0000000010098789

TCM has the electrical fail-safe mode. The mode is divided into a maximum of 3 phases (1st fail-safe, 2nd fail-safe and final fail-safe) and functions so that the operation can be continued even if the signal circuit of the main electronically controlled input/output parts is damaged.
Even if the electronic circuit is normal, the fail-safe mode may start under special conditions (such as when the brake pedal is depressed suddenly from a hard wheel spin status to stop the rotation of wheels). In this case, turn the ignition switch OFF and back to ON after 5 seconds to resume the normal shift pattern.
Consequently, the customer's vehicle may already return to the normal condition. Refer to TM-93, "Work Flow".

1st fail-safe	The mode that the vehicle can stop safely, to prompt the driver to stop if the malfunction occurs and to shift to 2nd fail-safe early. It shifts to 2nd fail-safe or final fail-safe after the vehicle stopped.
2nd fail-safe	The mode that the vehicle shifts to final fail-safe without changing the behavior, by identifying the malfunctioning parts in the condition that the driving force required for the driving is secured.
Final fail-safe	• Selects the shifting pattern that the malfunctioning parts identified at 1st fail-safe and 2nd fail-safe are not used, and then secure the driving force that is required for the driving. • The mode that the shifting performance does not decrease by normal shift control.

FAIL-SAFE FUNCTION

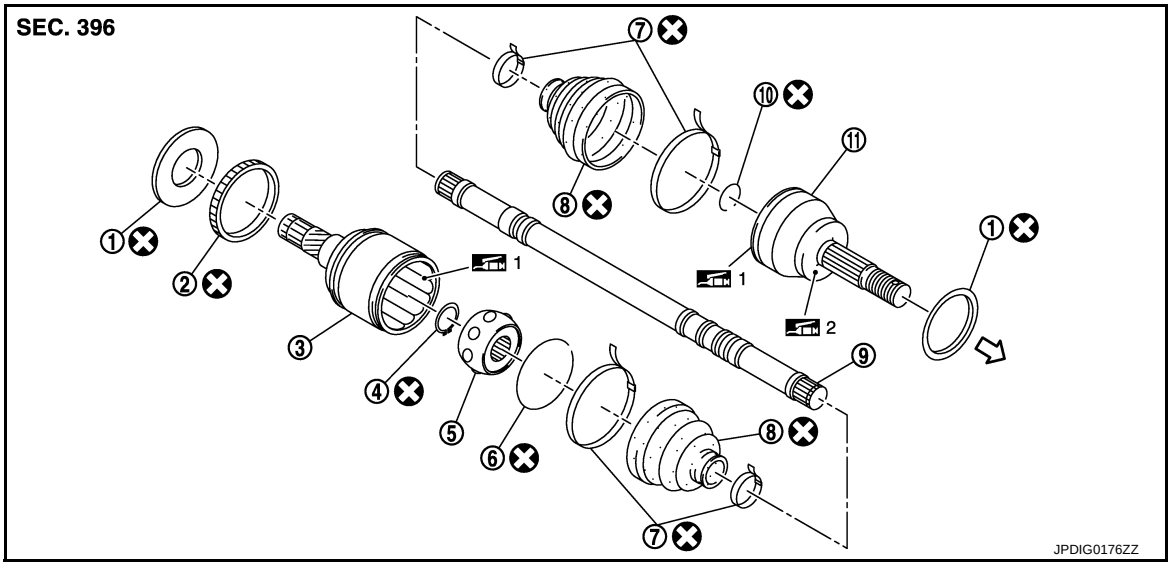
DTC	Vehicle condition	Vehicle behavior for 1st fail-safe	Vehicle behavior for 2nd fail-safe	Vehicle behavior for final fail-safe
P0615	—	Starter is disabled	—	Starter is disabled
P0705	—	• Fixed in the “D” position (The shifting can be performed) • Lock-up is prohibited when 30 km/h (19 MPH) or less • The shifting between the gears of 3 - 4 - 5 - 6 - 7 can be performed • Manual mode is prohibited • Shift position indicator is switched OFF • Starter relay is switched OFF (starter is disabled) • Back-up lamp is OFF • Large shift shock	—	• Fixed in the “D” position (The shifting can be performed) • Lock-up is prohibited when 30 km/h (19 MPH) or less • The shifting between the gears of 3 - 4 - 5 - 6 - 7 can be performed • Manual mode is prohibited • Shift position indicator is switched OFF • Starter relay is switched OFF (starter is disabled) • Back-up lamp is OFF • Large shift shock
P0710	Between the gears of 1 - 2 - 3	• The shifting between the gears of 1 - 2 - 3 can be performed • Manual mode is prohibited	—	• The shifting between the gears of 1 - 2 - 3 can be performed • Manual mode is prohibited
	Between the gears of 4 - 5 - 6 - 7	• Fix the gear while driving • Manual mode is prohibited	—	
P0717	Between the gears of 1 - 2 - 3	• The shifting between the gears of 1 - 2 - 3 can be performed • Manual mode is prohibited	—	• The shifting between the gears of 1 - 2 - 3 can be performed • Manual mode is prohibited
	Between the gears of 4 - 5 - 6 - 7	• Fix the gear while driving • Manual mode is prohibited	—	

REAR DRIVE SHAFT

Exploded View

INFOID:0000000010100262

VQ37VHR



1.	Dust shield	2.	Sensor rotor	3.	Housing
4.	Stopper ring	5.	Ball cage/steel ball/inner race assembly	6.	Stopper ring
7.	Boot band	8.	Boot	9.	Shaft
10.	Circular clip	11.	Joint sub-assembly		

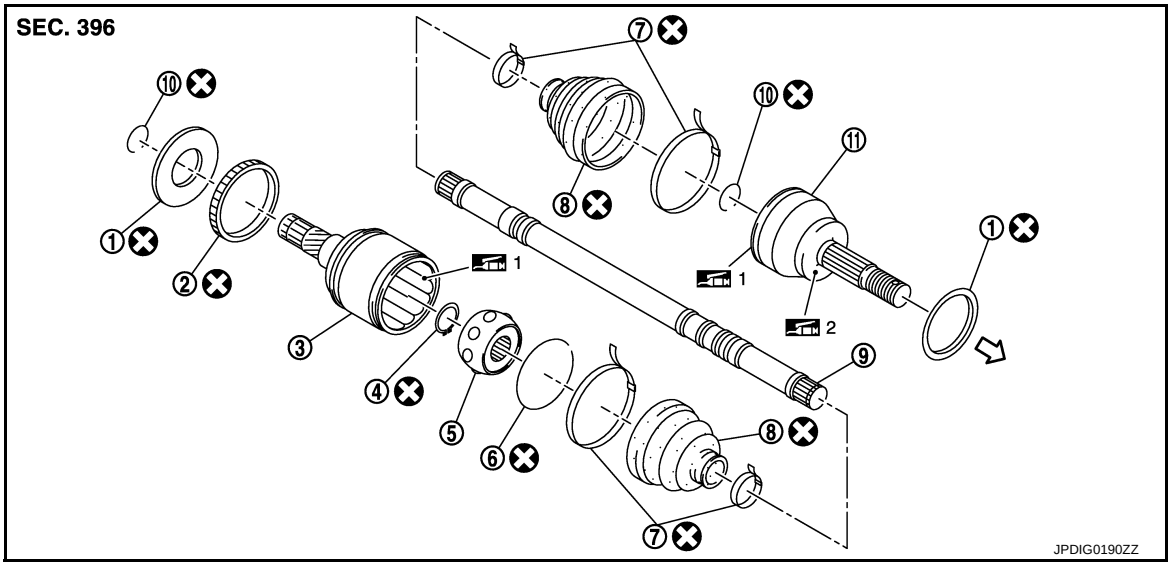
⇦: Wheel side

1: NISSAN genuine grease or an equivalent.

2: Apply paste [service parts (440037S000)].

Refer to GI-4, "Components" for symbols not described on the above.

VK56VD



1.	Dust shield	2.	Sensor rotor	3.	Housing
4.	Stopper ring	5.	Ball cage/steel ball/inner race assembly	6.	Stopper ring
7.	Boot band	8.	Boot	9.	Shaft

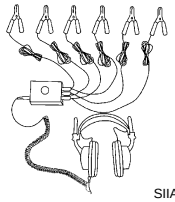
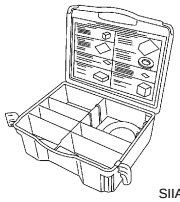
PREPARATION

PREPARATION

Special Service Tools

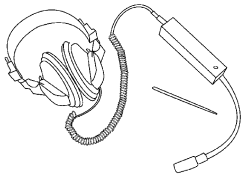
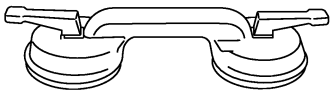
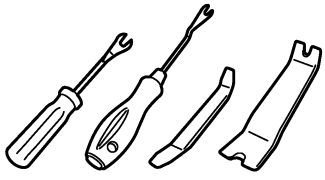
INFOID:0000000010098629

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
(J-39570) Chassis ear  SIIA0993E	Locates the noise
(J-50397) NISSAN Squeak and Rattle Kit  SIIA0994E	Repairs the cause of noise

Commercial Service Tools

INFOID:0000000010098630

Tool name	Description
Engine ear  SIIA0995E	Locates the noise
Suction lifter  PIIB1805J	Holds the windshield glass, side window glass and back door window glass
Remover tools  JMKIA3050ZZ	Removes the clips, pawls and metal clips

1. Turn ignition switch OFF.
2. Disconnect A/C auto amp. harness connector.
3. Check continuity between mode door motor LH harness connector and A/C auto amp. harness connector.

Mode door motor LH		A/C auto amp.		Continuity
Connector	Terminal	Connector	Terminal	
M316 (with Forest Air)	4	M304	71	Existed
M317 (without Forest Air)	5			

Is the inspection result normal?

YES >> GO TO 15.
NO >> Repair harness or connector.

13. CHECK MODE DOOR MOTOR (DRIVER SIDE) PBR GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect A/C auto amp. harness connector.
3. Check continuity between mode door motor LH harness connector and A/C auto amp. harness connector.

Mode door motor LH		A/C auto amp.		Continuity
Connector	Terminal	Connector	Terminal	
M316 (with Forest Air)	5	M304	79	Existed
M317 (without Forest Air)	7			

Is the inspection result normal?

YES >> GO TO 14.
NO >> Repair harness or connector.

14. CHECK MODE DOOR MOTOR (DRIVER SIDE) PBR

Check mode door motor (driver side) PBR. Refer to HAC-113, "Component Inspection (PBR)".

Is the inspection result normal?

YES >> GO TO 15.
NO >> Replace mode door motor (driver side). Refer to HAC-183, "MODE DOOR MOTOR : Removal and Installation".

15. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace A/C auto amp. Refer to HAC-175, "Removal and Installation".
NO >> Repair or replace malfunctioning parts.

Component Inspection (Motor)

INFOID:0000000010099470

1. CHECK MODE DOOR MOTOR (DRIVER SIDE)

1. Turn ignition switch OFF.
2. Disconnect the mode door motor LH harness connector.
3. Supply mode door motor (driver side) terminals with battery voltage and check by visually and operation sound that mode door motor (driver side) operates.

Terminal		Operation direction
+	–	
1	2	VENT
2	1	DEF

Is the inspection result normal?

LIFTING SWITCH (FRONT)

Component Function Check

INFOID:0000000010099613

1.CHECK FUNCTION

1. Select “LIFT FR SW-UP”, “LIFT FR SW-DN” in “Data monitor” mode with CONSULT.
2. Check lifting switch (front) signal under the following conditions.

Monitor item	Condition		Status
LIFT FR SW-UP	Lifting switch front (up)	Operate	ON
		Release	OFF
LIFT FR SW-DN	Lifting switch front (down)	Operate	ON
		Release	OFF

Is the indication normal?

YES >> INSPECTION END
NO >> Perform diagnosis procedure. Refer to ADP-79, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000010099614

1.CHECK LIFTING SWITCH (FRONT) SIGNAL

1. Turn ignition switch OFF.
2. Disconnect power seat switch connector.
3. Turn ignition switch ON.
4. Check voltage between power seat switch harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Power seat switch			
Connector	Terminals		
B518	17	Ground	12
	18		

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK LIFTING SWITCH (FRONT) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver seat control unit connector.
3. Check continuity between driver seat control unit harness connector and power seat switch harness connector.

Driver seat control unit		Power seat switch		Continuity
Connector	Terminal	Connector	Terminal	
B514	17	B518	17	Existed
	18		18	

4. Check continuity between driver seat control unit harness connector and ground.

Driver seat control unit			Continuity
Connector	Terminal	Ground	
B514	17		Not existed
	18		

Is the inspection result normal?

YES >> Replace driver seat control unit. Refer to ADP-145, "Removal and Installation".

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status of the moment a particular DTC is detected*	While turning BCM status from low power consumption mode to normal mode (Power supply position is “LOCK”*)
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is “OFF”.)
	LOCK>ACC		While turning power supply position from “LOCK” *to “ACC”
	ACC>ON		While turning power supply position from “ACC” to “IGN”
	RUN>ACC		While turning power supply position from “RUN” to “ACC” (Vehicle is stopping and selector lever is except P position.)
	CRANK>RUN		While turning power supply position from “CRANKING” to “RUN” (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from “RUN“ to “ACC” (Emergency stop operation)
	ACC>OFF		While turning power supply position from “ACC” to “OFF”
	OFF>LOCK		While turning power supply position from “OFF” to “LOCK”*
	OFF>ACC		While turning power supply position from “OFF” to “ACC”
	ON>CRANK		While turning power supply position from “IGN” to “CRANKING”
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is “OFF”.) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is “LOCK”*.) to low power consumption mode
	LOCK		Power supply position is “LOCK” (Ignition switch OFF with steering is locked.)*
	OFF		Power supply position is “OFF” (Ignition switch OFF with steering is unlocked.)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:
*: Power supply position shifts to “LOCK” from “OFF”, when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met.
- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to “ACC” when the push-button ignition switch (push switch) is pushed at “LOCK”.

RETAIND PWR

RETAIND PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000010169571

Data monitor

TCU BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000010101319

1.CHECK CONNECTOR

1. Turn the ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check the following terminals and connectors for damage, bend and loose connection (unit side and connector side).

- TCU
- Harness connector M26 and PCB harness side connector

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of TCU.
2. Check the resistance between the TCU harness connector terminals.

TCU harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M216	9	10	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.
NO >> GO TO 4.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the TCU. Refer to AV-395, "TCU : Diagnosis Procedure".

Is the inspection result normal?

YES (Present error)>>Replace the TCU. Refer to AV-404, "Removal and Installation".
YES (Past error)>>Error was detected in the TCU branch line.
NO >> Repair the power supply and the ground circuit.

4.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the harness connector M26.
2. Check the continuity between the TCU harness connector and the harness connector.

TCU harness connector		Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M216	9	M26	242	Existed
	10		262	Existed

Is the inspection result normal?

YES >> Replace the PCB harness.
NO >> Repair the harness between the TCU harness connector M216 and the harness connector M26.

MAIN LINE BETWEEN DLC AND ADP CIRCUIT

Diagnosis Procedure

INFOID:0000000010286157

1.CHECK CONNECTOR

1. Turn the ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
3. Check the following terminals and connectors for damage, bend and loose connection (connector side and harness side).

- Harness connector M20 and PCB harness side connector
- Harness connector M7
- Harness connector B1

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the terminal and connector.

2.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the harness connector M20.
2. Check the continuity between the data link connector and the PCB harness connector.

Data link connector		PCB harness connector	Continuity
Connector No.	Terminal No.	Terminal No.	
M182	13	24	Existed
	12	27	Existed

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace the PCB harness.

3.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the harness connectors M7 and B1.
2. Check the continuity between the harness connectors.

Harness connector		Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M20	24	M7	34	Existed
	27		35	Existed

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair the main line between the harness connectors M20 and M7.

4.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

Check the continuity between the harness connector terminals.

Connector No.	Terminal No.		Continuity
B1	34	32	Existed
	35	33	Existed

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.
YES (Past error)>>Error was detected in the main line between the data link connector and the driver seat control unit.
NO >> Replace the body harness.