

SECTION **ST**
STEERING SYSTEM

A
B
C
D
E
F
ST
H
I
J
K
L
M
N
O
P

CONTENTS

PRECAUTION	2	REMOVAL AND INSTALLATION	11
PRECAUTIONS	2	STEERING WHEEL	11
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	2	Exploded View	11
Service Notice or Precautions for Steering System	2	Removal and Installation	11
Precaution for Work	2	STEERING COLUMN	12
PREPARATION	4	Exploded View	12
PREPARATION	4	Removal and Installation	12
Special Service Tools	4	Inspection	13
Commercial Service Tools	4	STEERING GEAR AND LINKAGE	14
SYMPTOM DIAGNOSIS	6	Exploded View	14
NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING	6	Removal and Installation	14
NVH Troubleshooting Chart	6	Inspection	15
BASIC INSPECTION	7	UNIT DISASSEMBLY AND ASSEMBLY ...	16
STEERING WHEEL	7	STEERING GEAR AND LINKAGE	16
Inspection	7	Exploded View	16
STEERING COLUMN	9	Disassembly and Assembly	16
Inspection	9	SERVICE DATA AND SPECIFICATIONS (SDS)	18
STEERING GEAR AND LINKAGE	10	SERVICE DATA AND SPECIFICATIONS (SDS)	18
Inspection	10	Steering Wheel	18
		Steering Angle	18
		Steering Column	18
		Steering Gear	19

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000010359152

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least three minutes before performing any service.

Service Notice or Precautions for Steering System

INFOID:000000010359150

- In case of removing steering gear, make the final tightening with grounded and unloaded vehicle condition, and then check wheel alignment.
- Observe the following precautions when disassembling.
 - Before disassembly, thoroughly clean the outside of the unit.
 - Disassembly should be done in a clean work area. It is important to prevent the internal parts from becoming contaminated by dirt or other foreign matter.
 - For easier and proper assembly, place disassembled parts in order on a parts rack.
 - Use nylon cloth or paper towels to clean the parts; common shop rags can leave lint that might interfere with their operation.
 - Do not reuse non-reusable parts.
 - Before assembling, apply the specified grease to the directed parts.
- During quick steering, rasping noise may be heard from around the steering wheel. This is not a malfunction. The noise is an operating noise of the EPS system under normal conditions. If the rasping noise occurs during slow steering, this may not be an operating noise of the system. In this case, it is necessary to find out the location of the noise and repair, if necessary.
- Do not repeat static steering. (Motor and EPS control unit could be heated.)

Precaution for Work

INFOID:000000010359151

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.

PRECAUTIONS

< PRECAUTION >

- Follow the steps below to clean components:
- Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, dry cloth.
- Oily dirt:
 - Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
 - Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

A

B

C

D

E

F

ST

H

I

J

K

L

M

N

O

P

PREPARATION

< PREPARATION >

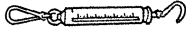
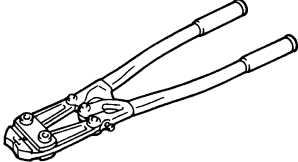
PREPARATION

PREPARATION

Special Service Tools

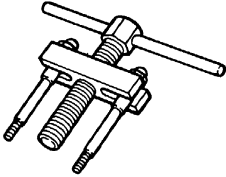
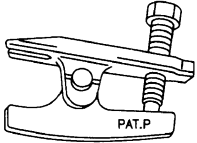
INFOID:000000009795700

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-44372) Pull gauge  LST024	Measuring steering wheel turning force, rack sliding force and ball joint swinging force
KV40107300 (—) Boot Band crimping tool  ZZA1229D	Installing boot bands (large diameter)

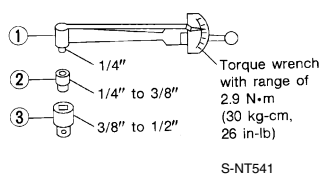
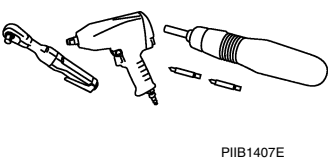
Commercial Service Tools

INFOID:000000009795701

Tool name	Description
Steering wheel puller  ZZA0819D	Removing steering wheel
Ball joint remover  PAT.P NT146	Removing ball joint

PREPARATION

< PREPARATION >

Tool name	Description
<p>ST3127S000 (J-25765-A) Preload gauge 1. GG9103000 (J-25765-A) Torque wrench 2. HT62940000 (-) Socket adapter 3. HT62900000 (-) Socket adapter</p>	<p>Inspecting of rotating torque for ball joint and steering column</p> <div style="text-align: center;">  </div>
<p>Power tool</p> <div style="text-align: center;">  </div>	<p>Loosening nuts, screws and bolts</p>

A
B
C
D
E
F
ST

H
I
J
K
L
M
N
O
P

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:000000009795695

Use the chart below to find the cause of the symptom. If necessary, repair or replace these parts.

Reference			ST-10	ST-10	ST-10	ST-7	ST-7	—	ST-7	ST-9	ST-9	ST-10	DLN-97	DLN-110	FSU-5	FAX-6	WT-55	FAX-37	BR-6		
Possible cause and SUSPECTED PARTS			Outer/inner socket ball joint swinging torque	Outer/inner socket ball joint rotating torque	Outer/inner socket ball joint end play	Steering wheel play	Improper steering wheel	Improper installation or looseness of tilt lock lever	Mounting looseness	Steering column deformation or damage	Improper installation or looseness of steering column	Steering linkage looseness	PROPELLER SHAFT (AWD)	DIFFERENTIAL (AWD)	SUSPENSION	AXLE	WHEEL AND TIRE	DRIVE SHAFT	BRAKE		
Symptom	Steering	Noise	x	x	x	x				x	x		x	x	x	x	x	x	x	x	
		Shake					x	x	x				x		x	x	x	x	x	x	x
		Vibration					x	x	x	x	x		x		x	x			x		
		Shimmy					x			x			x			x	x	x			x
		Shudder							x	x			x			x	x	x			x

x: Applicable

STEERING WHEEL

< BASIC INSPECTION >

BASIC INSPECTION

STEERING WHEEL

Inspection

INFOID:000000009795702

STEERING WHEEL AXIAL END PLAY

1. Check installation conditions of steering gear, front suspension assembly, axle and steering column.
2. Check if movement exists when steering wheel is moved up and down, to the left and right and to the axial direction.

Steering wheel axial end play : Refer to [ST-18, "Steering Wheel"](#).

3. Check the following items when steering wheel axial end play is out of the standard.
 - Check the steering column condition. Refer to [ST-12, "Exploded View"](#).
 - Check steering gear condition for looseness. Refer to [ST-14, "Exploded View"](#).

STEERING WHEEL PLAY

1. Turn steering wheel so that front wheels come to the straight-ahead position.
2. Start engine and lightly turn steering wheel to the left and right until front wheels start to move.
3. Measure steering wheel movement on the outer circumference.

Steering wheel play : Refer to [ST-18, "Steering Wheel"](#).

4. Check the following items when steering wheel play is out of the standard.
 - Check backlash for each joint of steering column.
 - Check installation condition of steering gear.

NEUTRAL POSITION STEERING WHEEL

1. Make sure that steering gear, steering column and steering wheel are installed in the correct position.
2. Perform neutral position inspection after wheel alignment. Refer to [FSU-7, "Inspection"](#).
3. Set vehicle to the straight-ahead position and confirm steering wheel is in the neutral position.
4. Loosen outer socket lock nut and turn inner socket to left and right equally to make fine adjustments if steering wheel is not in the neutral position.

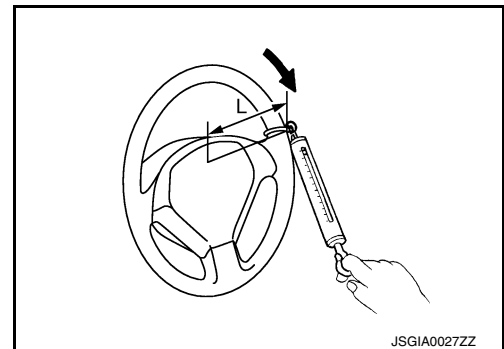
STEERING WHEEL TURNING FORCE

1. Park vehicle on a level and dry surface, set parking brake.
2. Tires need to be inflated normal pressure. Refer to [WT-65, "Tire Air Pressure"](#).
3. Start engine.
4. Check steering wheel turning force when steering wheel has been turned 360° from neutral position.

Steering wheel turning force : Refer to [ST-18, "Steering Wheel"](#).

NOTE:

Multiply the distance (L) from the hook of spring balance to the center of steering wheel by the measurement value with a spring balance.



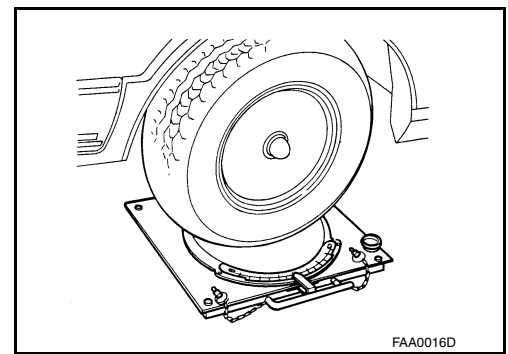
FRONT WHEEL TURNING ANGLE

1. Check front wheel turning angle after toe-in inspection. Refer to [FSU-7, "Inspection"](#).

STEERING WHEEL

< BASIC INSPECTION >

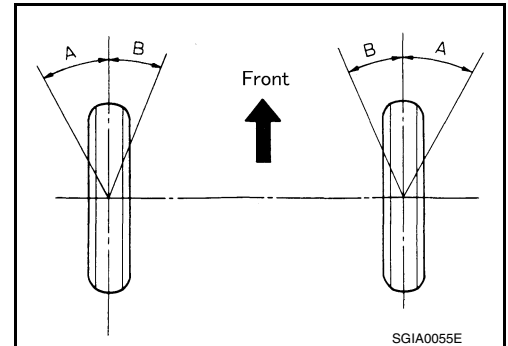
- Place front wheels on turning radius gauges and rear wheels on stands, so that vehicle can be level.
- Check the maximum inner and outer wheel turning angles for LH and RH road wheels.



- With the engine at idle, turn steering wheel from full left stop to full right stop and measure the turning angles.

Inner wheel (Angle: A) : Refer to [ST-18, "Steering Angle"](#).

Outer wheel (Angle: B) : Refer to [ST-18, "Steering Angle"](#).

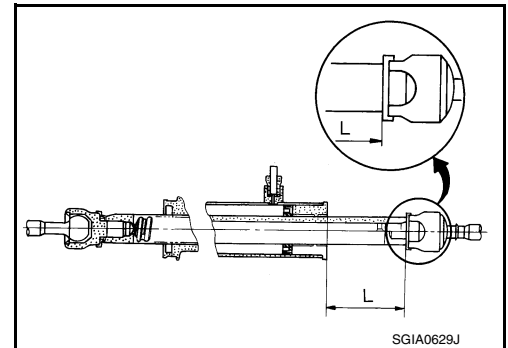


- Check the following items when turning angle is out of the standard.

- Check the neutral position of the rack stroke (L).

L : Refer to [ST-18, "Steering Column"](#).

- Disassemble steering gear to check the cause that rack stroke is outside of the standard.
 - Steering angles are not adjustable. Check steering gear, steering column and front suspension components for wear or damage if any of the turning angles are different from the specified value. Replace any of them, if any non-standard condition exists.



STEERING COLUMN

< BASIC INSPECTION >

STEERING COLUMN

Inspection

INFOID:000000010355870

HOLE COVER SEAL, HOLE COVER AND LOWER SHAFT

Check each part of hole cover seal, hole cover and steering column and lower shaft for damage or other malfunctions. Replace if necessary.

STEERING COLUMN

- Check each part of steering column for damage or other malfunctions. Replace entire steering column if any parts are damaged.
- Measure the steering column length (with the steering wheel and airbag module installed) if vehicle has been involved in a minor collision. Replace steering column if outside the specifications.

Steering column length (with steering wheel and air bag module installed) : Refer to [ST-18, "Steering Column"](#).

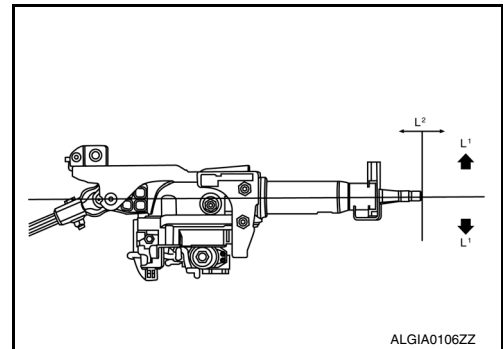
- Measure steering column rotating torque using suitable tool. Replace steering column if outside the standard.

Rotating torque : Refer to [ST-18, "Steering Column"](#).

- Check tilt and telescopic mechanism operating range (L^1), (L^2) as shown.

Tilt operating range (L^1) : Refer to [ST-18, "Steering Column"](#).

Telescopic operating range (L^2) : Refer to [ST-18, "Steering Column"](#).



STEERING GEAR AND LINKAGE

< BASIC INSPECTION >

STEERING GEAR AND LINKAGE

Inspection

INFOID:000000010355871

BOOT

Check boot for cracks. Replace if any damage is found.

OUTER SOCKET AND INNER SOCKET

Boot

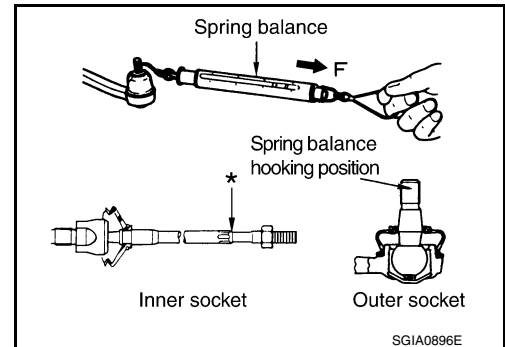
- Check boot for cracks, and replace it if a malfunction is detected.

Gear Housing

- Check gear housing for damage and scratches (inner wall). Replace if there are any abnormal conditions.
- Ball joint swinging torque
- Hook a spring balance to the ball stud and inner socket measuring point (*) and pull the spring balance. Make sure that the spring balance reads the specified value when ball stud and inner socket start to move. Replace outer socket and inner socket if they are outside the specification.

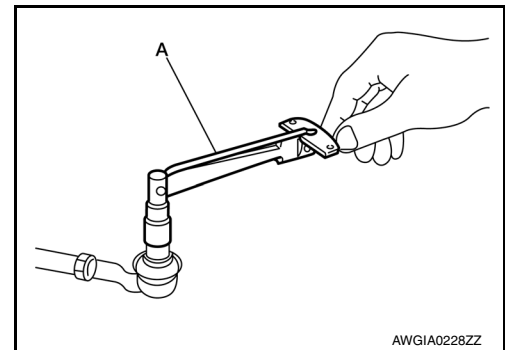
Tool number : — (J-44372)

Swinging torque : Refer to [ST-19, "Steering Gear"](#).



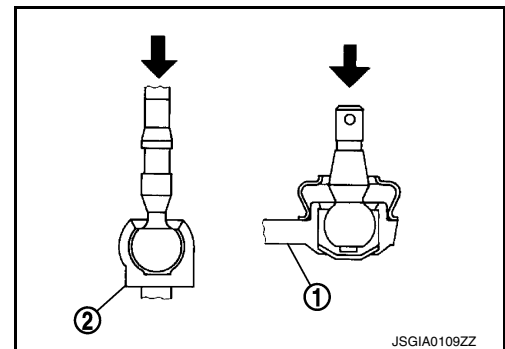
- Ball joint rotating torque
- Make sure that the reading is within the following specified range using suitable tool. Replace outer socket if the reading is outside the specification.

Rotating torque : Refer to [ST-19, "Steering Gear"](#)



- Ball joint axial end play
- Apply an axial load of 490 N (50 kg, 111 lb) to ball stud. Measuring the amount of stud movement using a dial gauge, make sure that the value is within specification. Replace outer socket (A) and inner socket (B) if the measured value is outside specification.

Axial end play : Refer to [ST-19, "Steering Gear"](#).



STEERING WHEEL

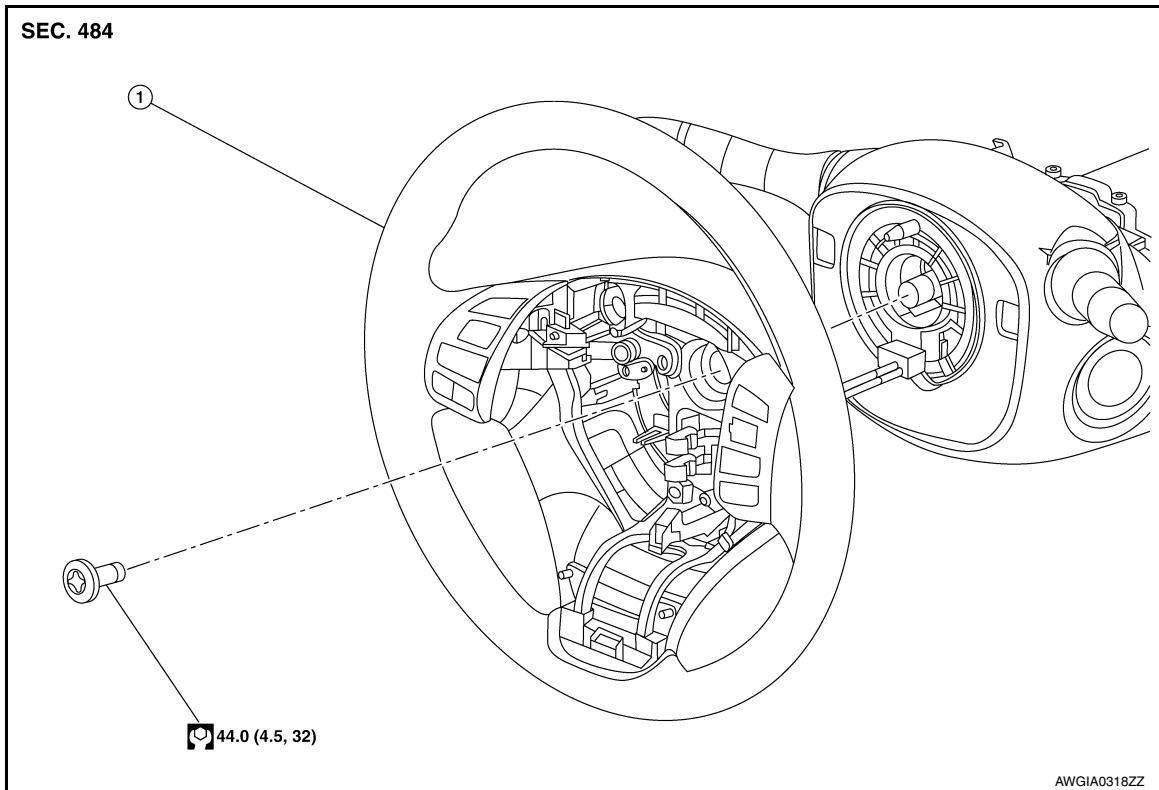
< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

STEERING WHEEL

Exploded View

INFOID:000000009795703



1. Steering wheel

Removal and Installation

INFOID:000000009795704

REMOVAL

1. Set the front wheels and tires in the straight-ahead position.
2. Remove driver air bag module. Refer to [SR-12. "Removal and Installation"](#).
3. Remove steering wheel bolt.
4. Disconnect harness connector for steering wheel switches.
5. Remove steering wheel using suitable tool.

CAUTION:

Place a piece of tape across the spiral cable so it will not be rotated out of position.

NOTE:

Put paint marks on the steering wheel and the column shaft head for supporting accurate positioning during the installation procedure.

6. Inspect steering wheel near the puller holes for damage. Replace as necessary.

INSTALLATION

Installation is in the reverse order of removal.

- Align spiral cable correctly before installing steering wheel. Make sure that the spiral cable is in the neutral position. Refer to [SR-15. "Removal and Installation"](#).
- Adjust the neutral position of the steering angle sensor. Refer to [BRC-70. "Work Procedure"](#).
- Tighten steering wheel center bolt to specification. Refer to [ST-11. "Exploded View"](#).

CAUTION:

The spiral cable may snap due to steering operation if the spiral cable is not installed in the correct position.

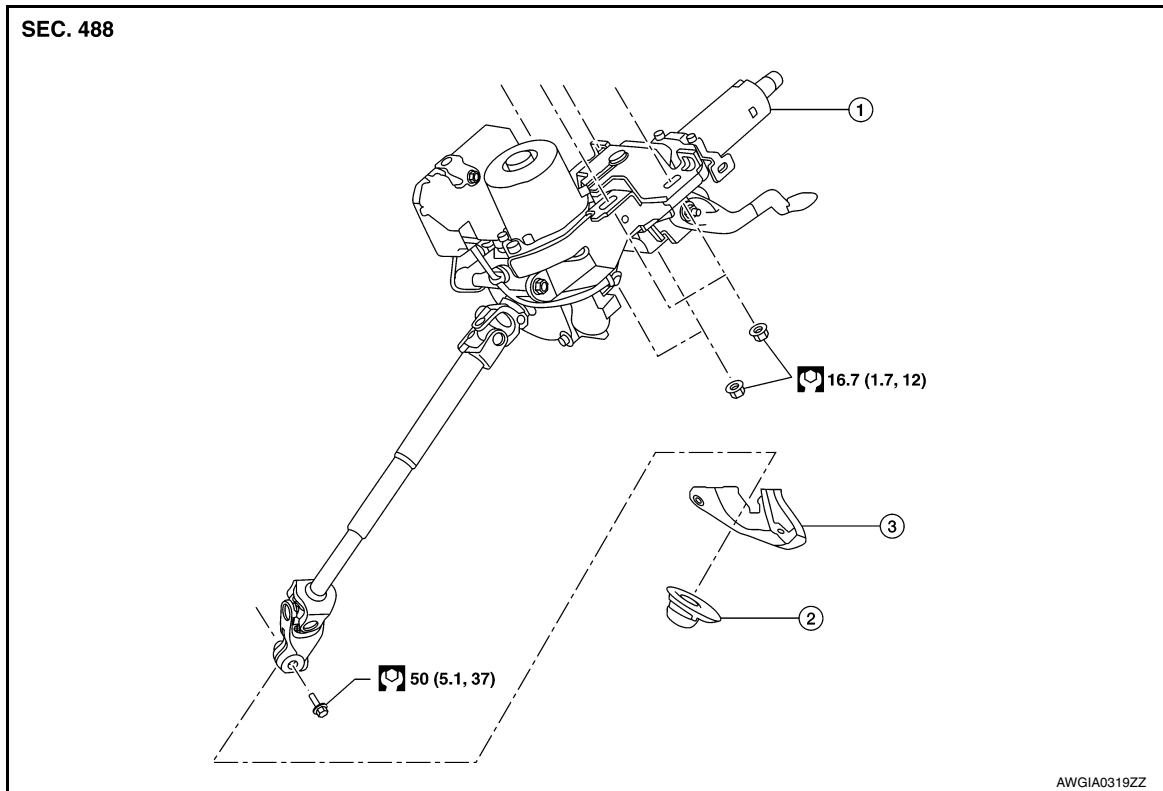
STEERING COLUMN

< REMOVAL AND INSTALLATION >

STEERING COLUMN

Exploded View

INFOID:000000009795705



1. Steering column

2. Floor cover

3. Floor seal

Removal and Installation

INFOID:000000009795706

CAUTION:

- Any time the ignition switch has been disconnected, removed or installed, the keys must be re-registered in the BCM. Refer to **CONSULT** operations manual.
- Do not cause impact to the steering column during removal and installation.

REMOVAL

1. Set front wheels and tires in the straight-ahead position.
2. Place the tilt to the highest level.
3. Remove combination switch. Refer to [BCS-76. "Removal and Installation"](#) (WITH INTELLIGENT KEY SYSTEM), [BCS-136. "Removal and Installation"](#) (WITHOUT INTELLIGENT KEY SYSTEM).
4. Remove instrument lower panel LH. Refer to [IP-22. "Removal and Installation"](#).
5. Disconnect the harness connectors from the steering column.
6. Remove bolt and separate steering column from steering gear pinion shaft.

CAUTION:

Do not move the steering gear during removal and installation of the steering column.

7. Remove nuts and remove steering column.

INSTALLATION

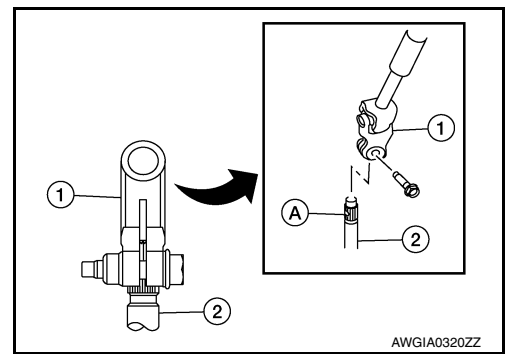
Installation is in the reverse order of removal.

CAUTION:

STEERING COLUMN

< REMOVAL AND INSTALLATION >

- When connecting the steering column yoke (1) to the steering gear pinion shaft (2), make sure that the groove (A) lines up with the steering column yoke hole.
- Make sure the bolt is in the correct direction, as shown, and engages the steering gear pinion shaft groove (A).



- When installing the steering column, finger-tighten all of the lower bracket and joint retaining bolts; then tighten them to specification. Do not apply undue stress to the steering column.
- Replace the steering column if it has been dropped or sustained an impact.
- After installation, turn steering wheel to make sure it moves smoothly while turning to the left and right stops. Make sure the number of turns are the same from the straight-forward position to left and right stops. Make sure that the steering wheel is in a neutral position when driving straight ahead.
- When installing steering column to steering member, install nut from front of vehicle.
- After installing the steering column, check the tilt mechanism for proper operation.
- Adjust the neutral position of the steering angle sensor. Refer to [BRC-70, "Work Procedure"](#).

Inspection

INFOID:000000009795707

INSPECTION AFTER REMOVAL

- Check each part of steering column for damage or other malfunctions. Replace if there are any abnormal conditions. Refer to [ST-9, "Inspection"](#).

INSPECTION AFTER INSTALLATION

- Check each part of steering column for damage or other malfunctions. Replace if there are any abnormal conditions. Refer to [ST-9, "Inspection"](#).
- Check the steering wheel play, neutral position steering wheel, steering wheel turning force, and front wheel turning angle. Refer to [ST-7, "Inspection"](#).

STEERING GEAR AND LINKAGE

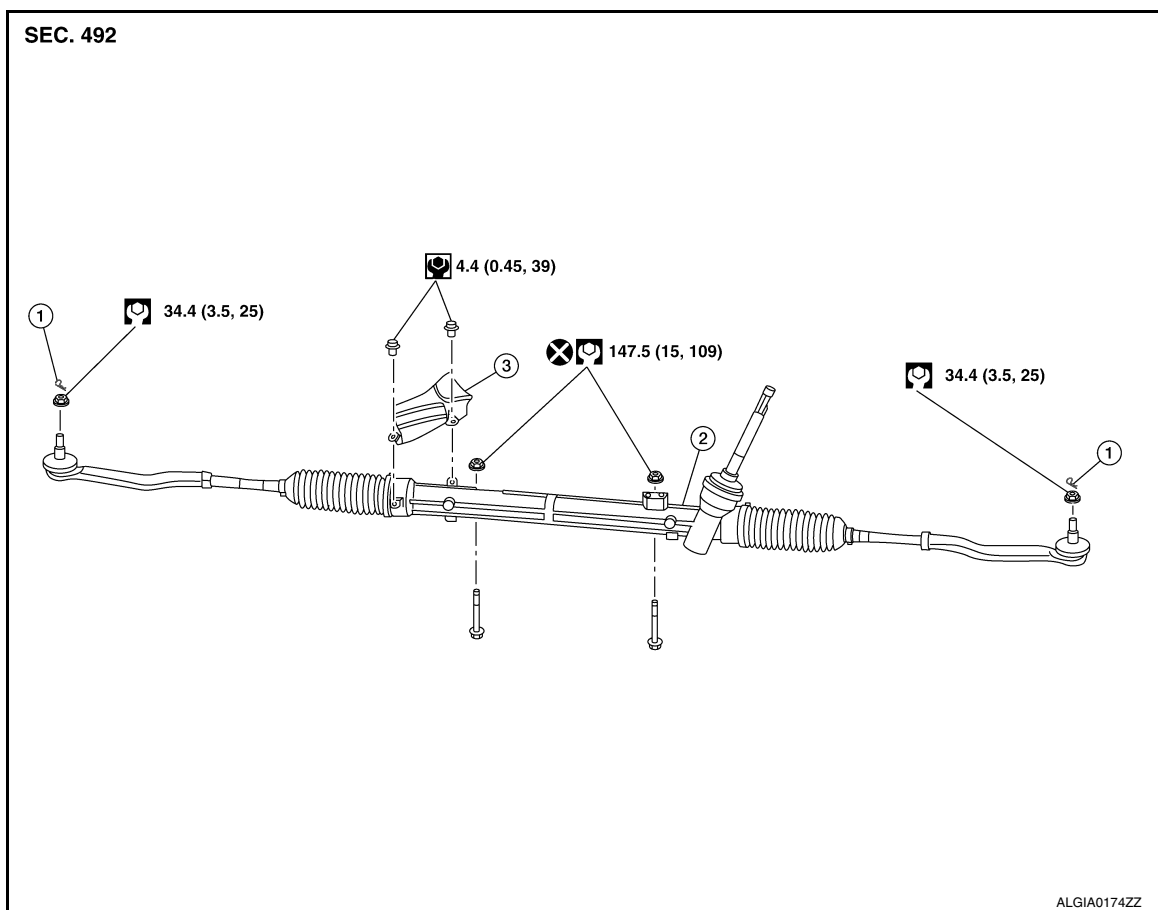
< REMOVAL AND INSTALLATION >

STEERING GEAR AND LINKAGE

Exploded View

INFOID:000000009795708

REMOVAL AND INSTALLATION



1. Cotter pin

2. Steering gear

3. Heat shield

Removal and Installation

INFOID:000000009795709

REMOVAL

1. Set the front wheels and tires to the straight-ahead position.
2. Remove the floor cover. Refer to [ST-12, "Exploded View"](#).
3. Remove the floor seal. Refer to [ST-12, "Exploded View"](#).
4. Remove the joint retaining bolt and separate the steering column yoke from the steering gear pinion shaft. Refer to [ST-12, "Exploded View"](#).
5. Remove the cotter pins (LH/RH), nuts (LH/RH) and disconnect the outer sockets (LH/RH).
6. Separate the stabilizer connecting rods (LH/RH) from the stabilizer bar. Refer to [FSU-20, "Exploded View"](#).
7. Disconnect the harness connector for oxygen sensor 2. Refer to [EX-5, "Exploded View"](#).
8. Remove the front exhaust tube. Refer to [EX-5, "Exploded View"](#).
9. Remove the center exhaust tube. Refer to [EX-5, "Exploded View"](#).
10. Remove the lower torque rod. Refer to [EM-81, "Exploded View"](#).
11. Remove front suspension member stay and support the front suspension using a suitable jack. Refer to [FSU-20, "Exploded View"](#).
12. Remove bolts and remove the steering gear.

STEERING GEAR AND LINKAGE

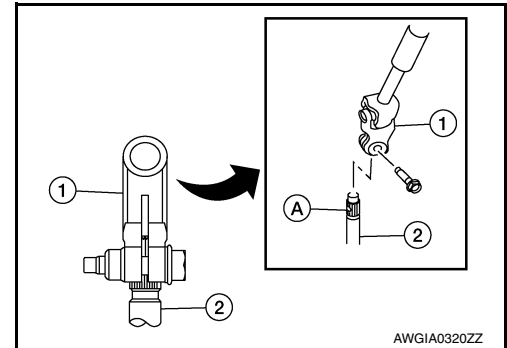
< REMOVAL AND INSTALLATION >

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- With the steering linkage disconnected, the spiral cable may snap by turning the steering wheel beyond the limited number of turns.
- When connecting the steering column yoke (1) to the steering gear pinion shaft (2), be sure that gap (A) lines up with the joint retaining bolt hole.



- When installing the steering column, finger-tighten all of the lower bracket and joint retaining bolts; then tighten them to specification. Do not apply undue stress to the steering column.
- Do not reuse steering gear nuts.
- Check wheel alignment. Refer to [FSU-7, "Inspection"](#).
- Adjust the neutral position of the steering angle sensor. Refer to [BRC-70, "Work Procedure"](#).

Inspection

INFOID:000000009795711

INSPECTION AFTER INSTALLATION

- Check if steering wheel turns smoothly when it is turned several times fully to the end of the left and right.
- Check the steering wheel play, neutral position steering wheel, steering wheel turning force, and front wheel turning angle. Refer to [ST-7, "Inspection"](#).

STEERING GEAR AND LINKAGE

< UNIT DISASSEMBLY AND ASSEMBLY >

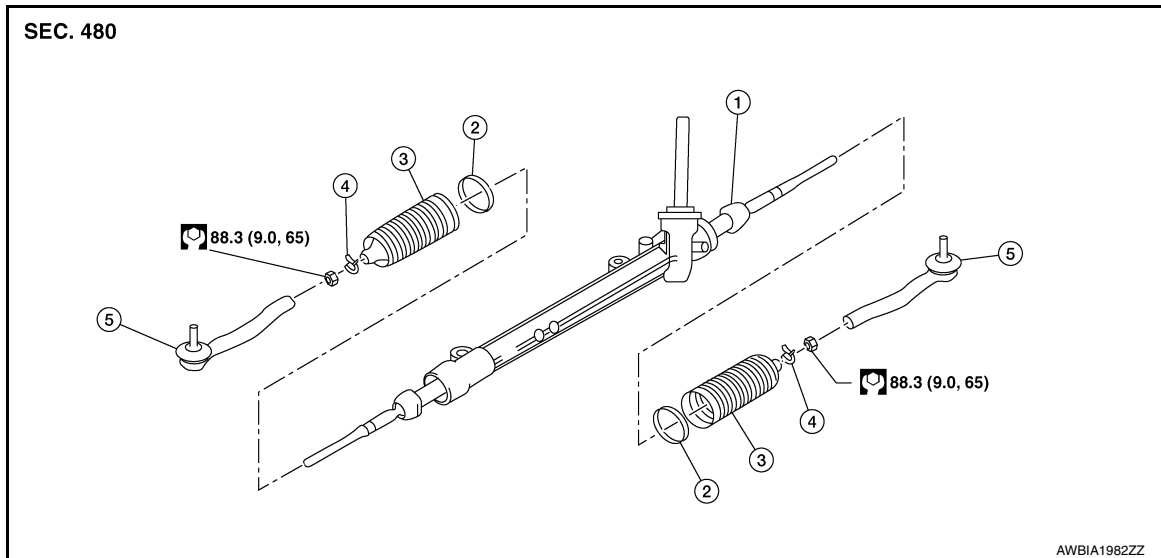
UNIT DISASSEMBLY AND ASSEMBLY

STEERING GEAR AND LINKAGE

Exploded View

INFOID:000000010338567

DISASSEMBLY AND ASSEMBLY



- | | | |
|---------------------|---------------------|---------|
| 1. Steering gear | 2. Inner boot clamp | 3. Boot |
| 4. Outer boot clamp | 5. Outer socket | |

Disassembly and Assembly

INFOID:000000009795710

DISASSEMBLY

1. Remove outer socket lock nut and remove outer socket.
2. Remove inner and outer boot clamps and remove boot.

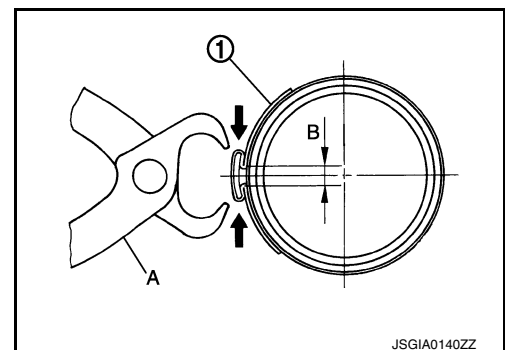
ASSEMBLY

1. Apply recommended grease to inner socket.
2. Install boot to steering gear.
3. Install inner boot clamp (1) to boot and secure using Tool (A).

Tool number : (KV40107300) (—)

CAUTION:

- Install inner boot clamp (1) securely to boot groove, and crimp it so as to have clearance (B) of 3 mm (0.12 in) or less as shown.
- Inspect boot clamps and replace as necessary.



4. Install outer boot clamp to boot.

CAUTION:

Inspect boot and replace as necessary.

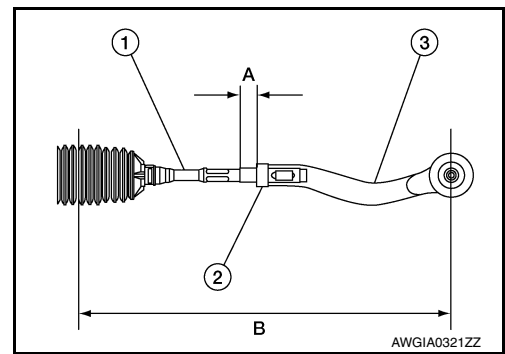
STEERING GEAR AND LINKAGE

< UNIT DISASSEMBLY AND ASSEMBLY >

5. Install outer socket (3) and lock nut (2) to achieve length (A). Check that inner socket (1) and outer socket (3) measure to standard length (B), then tighten lock nut (2) to the specified torque. Check length again after tightening lock nut (2).

B

: Refer to [ST-19, "Steering Gear"](#).



CAUTION:

- Adjust toe-in after this procedure. Length achieved after toe-in adjustment is not necessary the value above.
- When tightening lock nut, be sure to fix outer socket with a wrench or equivalent to prevent ball joint from getting contact with knuckle.

A
B
C
D
E
F
ST
H
I
J
K
L
M
N
O
P

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Steering Wheel

INFOID:000000009795713

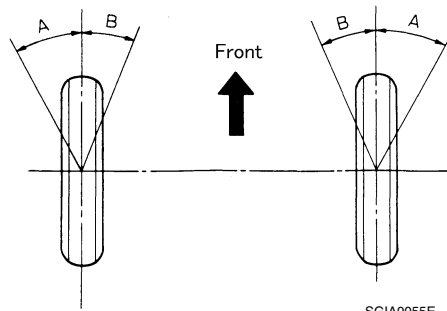
Unit: mm (in)

Item	Standard
Steering wheel axial end play	0 (0)
Steering wheel play	0 - 35 (0 - 1.38)
Steering wheel turning force	34 (3.5, 7.64) or less

Steering Angle

INFOID:000000009795715

Unit: Degree minute (Decimal degree)



Inner wheel angle (A)	Minimum	33°25' (33.42°)
	Nominal	36°25' (36.42°)
	Maximum	37°25' (37.42°)
Outer wheel angle (B)	Nominal	30°45' (30.75°)

Steering Column

INFOID:000000009795716

STEERING COLUMN LENGTH

Unit: mm (in)

Steering column length (with steering wheel installed)	Length (L)	577.2 (27.7)
	Telescopic maximum	602.2 (23.7)
	Telescopic minimum	552.2 (27.7)

STEERING COLUMN ROTATING TORQUE

Unit: N·m (kg-m, in-lb)

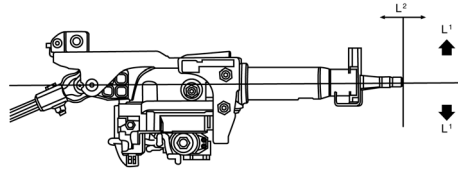
Rotating torque	1.9 (0.19, 17)
-----------------	----------------

TILT MECHANISM OPERATING RANGE

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

Unit: mm (in)



ALGIA0106ZZ

Tilt operating range (L ¹)	44 (1.7)
Telescopic operating range (L ²)	50 (2.0)

Steering Gear

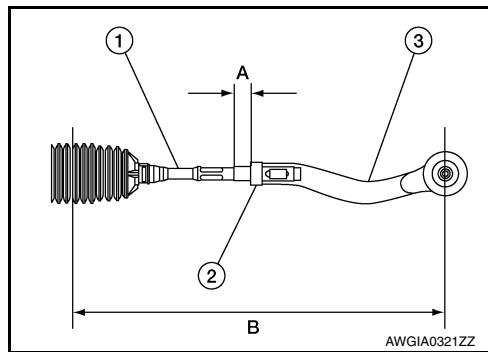
INFOID:000000009795717

STEERING OUTER SOCKET AND INNER SOCKET

Outer socket	Rocking torque	0.3 - 2.9 N·m (0.03 - 0.29 kg-m, 3.0 - 25 in-lb)
	Rotating torque	0.3 - 2.0 N·m (0.03 - 0.2 kg-m, 3.0 - 18 in-lb)
	Axial end play	0.4 mm (0.020 in) or less
Inner socket	Rocking torque	7.8 - 16.7 N·m (0.80 - 1.7 kg-m, 69 - 148 in-lb)
	Axial end play	0.2 mm (0.008 in) or less

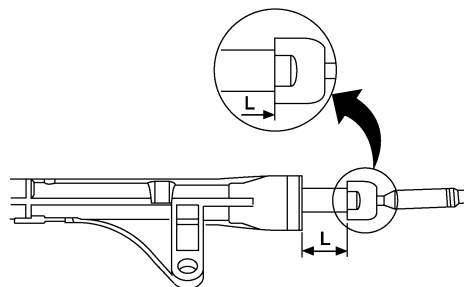
INNER AND OUTER SOCKET LENGTH

Inner and outer socket length	A	17 mm (0.67 in)
	B	329.9 mm (15.5 in)



AWGIA0321ZZ

RACK STROKE



AWGIA0003GB

Rack stroke in neutral position (L)	74 mm (2.9 in)
-------------------------------------	----------------

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

RACK SLIDING FORCE

Rack sliding force	115 - 175 N-f (11.7 - 17.9 kg-f, 25.9 - 39.3 lb-f)
--------------------	--