

# SECTION FAX

## FRONT AXLE

A  
B  
C

FAX

### CONTENTS

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#### FOR NISMO RS

|                                                                                                  |    |                                                                                                  |    |   |
|--------------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------|----|---|
| <b>PRECAUTION</b> .....                                                                          | 3  | 2WD : Inspection .....                                                                           | 19 | F |
| <b>PRECAUTIONS</b> .....                                                                         | 3  | <b>AWD</b> .....                                                                                 | 19 | G |
| Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" ..... | 3  | AWD : Exploded View .....                                                                        | 19 |   |
| Precautions for Drive Shaft .....                                                                | 3  | AWD : Removal and Installation .....                                                             | 20 |   |
| Precautions for Removing Battery Terminal .....                                                  | 4  | AWD : Inspection .....                                                                           | 24 |   |
| <b>PREPARATION</b> .....                                                                         | 5  | <b>FRONT DRIVE SHAFT</b> .....                                                                   | 26 | H |
| <b>PREPARATION</b> .....                                                                         | 5  | <b>2WD</b> .....                                                                                 | 26 | I |
| Special Service Tool .....                                                                       | 5  | 2WD : Exploded View .....                                                                        | 26 |   |
| Commercial Service Tools .....                                                                   | 6  | 2WD : Removal and Installation .....                                                             | 27 |   |
| <b>SYMPTOM DIAGNOSIS</b> .....                                                                   | 7  | 2WD : Disassembly and Assembly .....                                                             | 31 | J |
| <b>NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING</b> .....                                | 7  | 2WD : Inspection .....                                                                           | 42 |   |
| NVH Troubleshooting Chart .....                                                                  | 7  | <b>AWD</b> .....                                                                                 | 42 | K |
| <b>PERIODIC MAINTENANCE</b> .....                                                                | 8  | AWD : Exploded View .....                                                                        | 42 |   |
| <b>FRONT WHEEL HUB AND KNUCKLE</b> .....                                                         | 8  | AWD : Removal and Installation .....                                                             | 43 |   |
| Inspection .....                                                                                 | 8  | AWD : Disassembly and Assembly .....                                                             | 47 |   |
| <b>FRONT DRIVE SHAFT</b> .....                                                                   | 9  | AWD : Inspection .....                                                                           | 54 |   |
| Inspection .....                                                                                 | 9  | <b>SERVICE DATA AND SPECIFICATIONS (SDS)</b> .....                                               | 55 | L |
| <b>REMOVAL AND INSTALLATION</b> .....                                                            | 10 | <b>SERVICE DATA AND SPECIFICATIONS (SDS)</b> .....                                               | 55 | M |
| <b>FRONT WHEEL HUB AND KNUCKLE</b> .....                                                         | 10 | Wheel Bearing .....                                                                              | 55 |   |
| Exploded View .....                                                                              | 10 | Drive Shaft .....                                                                                | 55 | N |
| Removal and Installation .....                                                                   | 10 | <b>EXCEPT FOR NISMO RS</b>                                                                       |    |   |
| Inspection .....                                                                                 | 12 | <b>PRECAUTION</b> .....                                                                          | 56 | O |
| <b>FRONT DRIVE SHAFT BOOT</b> .....                                                              | 14 | <b>PRECAUTIONS</b> .....                                                                         | 56 | P |
| <b>2WD</b> .....                                                                                 | 14 | Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" ..... | 56 |   |
| 2WD : Exploded View .....                                                                        | 14 | Precautions for Drive Shaft .....                                                                | 56 |   |
| 2WD : Removal and Installation .....                                                             | 15 | Precautions for Removing Battery Terminal .....                                                  | 57 |   |
|                                                                                                  |    | <b>PREPARATION</b> .....                                                                         | 58 |   |
|                                                                                                  |    | <b>PREPARATION</b> .....                                                                         | 58 |   |

|                                          |           |                                        |            |
|------------------------------------------|-----------|----------------------------------------|------------|
| Special Service Tool .....               | 58        | 2WD : Inspection .....                 | 72         |
| Commercial Service Tools .....           | 59        |                                        |            |
| <b>SYMPTOM DIAGNOSIS .....</b>           | <b>60</b> | <b>AWD .....</b>                       | <b>72</b>  |
| <b>NOISE, VIBRATION AND HARSHNESS</b>    |           | AWD : Exploded View .....              | 72         |
| <b>(NVH) TROUBLESHOOTING .....</b>       | <b>60</b> | AWD : Removal and Installation .....   | 73         |
| NVH Troubleshooting Chart .....          | 60        | AWD : Inspection .....                 | 77         |
| <b>PERIODIC MAINTENANCE .....</b>        | <b>61</b> | <b>FRONT DRIVE SHAFT .....</b>         | <b>79</b>  |
| <b>FRONT WHEEL HUB AND KNUCKLE .....</b> | <b>61</b> | <b>2WD .....</b>                       | <b>79</b>  |
| Inspection .....                         | 61        | 2WD : Exploded View .....              | 79         |
| <b>FRONT DRIVE SHAFT .....</b>           | <b>62</b> | 2WD : Removal and Installation .....   | 80         |
| Inspection .....                         | 62        | 2WD : Disassembly and Assembly .....   | 84         |
| <b>REMOVAL AND INSTALLATION .....</b>    | <b>63</b> | 2WD : Inspection .....                 | 93         |
| <b>FRONT WHEEL HUB AND KNUCKLE .....</b> | <b>63</b> | <b>AWD .....</b>                       | <b>93</b>  |
| Exploded View .....                      | 63        | AWD : Exploded View .....              | 93         |
| Removal and Installation .....           | 63        | AWD : Removal and Installation .....   | 94         |
| Inspection .....                         | 65        | AWD : Disassembly and Assembly .....   | 98         |
| <b>FRONT DRIVE SHAFT BOOT .....</b>      | <b>67</b> | AWD : Inspection .....                 | 105        |
| <b>2WD .....</b>                         | <b>67</b> | <b>SERVICE DATA AND SPECIFICATIONS</b> |            |
| 2WD : Exploded View .....                | 67        | <b>(SDS) .....</b>                     | <b>106</b> |
| 2WD : Removal and Installation .....     | 68        | <b>SERVICE DATA AND SPECIFICATIONS</b> |            |
|                                          |           | <b>(SDS) .....</b>                     | <b>106</b> |
|                                          |           | Wheel Bearing .....                    | 106        |
|                                          |           | Drive Shaft .....                      | 106        |

## PRECAUTION

### PRECAUTIONS

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

INFOID:0000000011670672

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. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

**Always observe the following items for preventing accidental activation.**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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:**

**Always observe the following items for preventing accidental activation.**

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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 3 minutes before performing any service.

#### Precautions for Drive Shaft

INFOID:0000000011670673

- Observe the following precautions when disassembling and assembling drive shaft.
  - Never disassemble joint sub-assembly because it is non-overhaul parts.
  - Perform work in a location which is as dust-free as possible.
  - Clean the parts, before disassembling and assembling.
  - Prevent the entry of foreign objects during disassembly of the service location.
  - Reassemble disassembled parts carefully in the correct order. If work is interrupted, a clean cover must be placed over parts.
  - Use paper waste. Fabric shop cloths must not be used because of the danger of lint adhering to parts.
  - Clean disassembled parts (except for rubber parts) with kerosene which shall be removed by blowing with air or wiping with paper waste.

## PRECAUTIONS

< PRECAUTION >

[FOR NISMO RS]

### Precautions for Removing Battery Terminal

INFOID:0000000011670674

- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

**NOTE:**

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

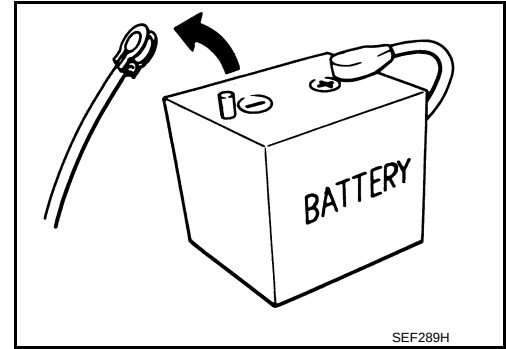
**NOTE:**

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

**NOTE:**

The removal of 12V battery may cause a DTC detection error.



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# PREPARATION

< PREPARATION >

[FOR NISMO RS]

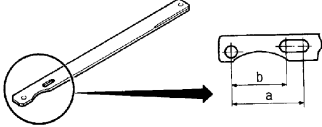
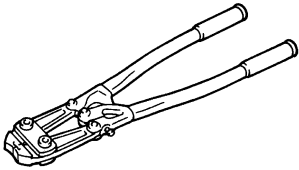
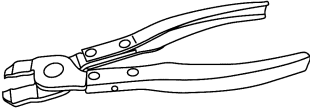
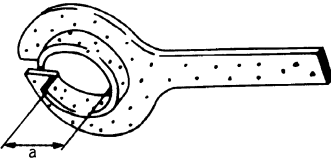
## PREPARATION

### PREPARATION

#### Special Service Tool

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The actual shapes of TechMate tools may differ from those of special service tools illustrated here.

| Tool number<br>(TechMate No.)<br>Tool name                                                         | Description                                 |
|----------------------------------------------------------------------------------------------------|---------------------------------------------|
| KV40104000<br>( — )<br>Hub lock nut wrench<br>a: 85 mm (3.35 in)<br>b: 65 mm (2.56 in)             | Removing and Installing wheel hub lock nut. |
| <br>ZZA0802D      |                                             |
| KV40107300<br>( — )<br>Boot band crimping tool                                                     | Installing boot band                        |
| <br>ZZA1229D      |                                             |
| KV40107310<br>( — )<br>Boot band crimping tool                                                     | Installing boot band (2WD)                  |
| <br>JSDIA6964ZZ |                                             |
| KV40107500<br>( — )<br>Drive shaft attachment                                                      | Removing drive shaft                        |
| <br>ZZA1230D    |                                             |
| KV38107900<br>( — )<br>Protector<br>a: 32 mm (1.26 in) dia.                                        | Installing drive shaft                      |
| <br>PDIA1183J   |                                             |

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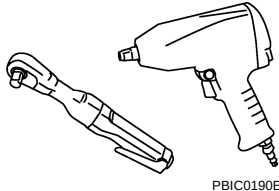
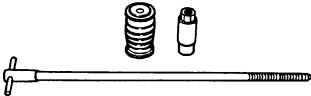
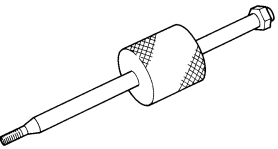
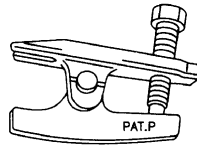
# PREPARATION

< PREPARATION >

[FOR NISMO RS]

## Commercial Service Tools

INFOID:000000011670676

| Tool name                                                                                                                  | Description                             |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Power tool<br><br><br>PBIC0190E           | Loosening bolts and nuts                |
| Drive shaft puller<br><br><br>JPDIG0152ZZ | Removing drive shaft joint sub assembly |
| Sliding hammer<br><br><br>ZZA0023D        | Removing drive shaft                    |
| Ball joint remover<br><br><br>NT146     | Removing hub bolt                       |

# NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

[FOR NISMO RS]

## SYMPTOM DIAGNOSIS

### NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

#### NVH Troubleshooting Chart

INFOID:0000000011670677

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

|                                    |             |                               |                       |                            |           |                                  |                    |                      |                                 |                             |                                   |                   |                   |                                    |                   |                   |
|------------------------------------|-------------|-------------------------------|-----------------------|----------------------------|-----------|----------------------------------|--------------------|----------------------|---------------------------------|-----------------------------|-----------------------------------|-------------------|-------------------|------------------------------------|-------------------|-------------------|
| Reference                          |             |                               | —                     | FAX-42 (2WD), FAX-54 (AWD) |           | —                                | FAX-10             | —                    | FAX-12                          | NVH in FAX and FSU sections | Refer to FRONT AXLE in this chart | NVH in WT section | NVH in WT section | Refer to DRIVE SHAFT in this chart | NVH in BR section | NVH in ST section |
| Possible cause and SUSPECTED PARTS |             |                               | Excessive joint angle | Joint sliding resistance   | Imbalance | Improper installation, looseness | Parts interference | Wheel bearing damage | FRONT AXLE AND FRONT SUSPENSION | FRONT AXLE                  | TIRE                              | ROAD WHEEL        | DRIVE SHAFT       | BRAKE                              | STEERING          |                   |
| Symptom                            | DRIVE SHAFT | Noise                         | ×                     | ×                          |           |                                  |                    | ×                    | ×                               | ×                           | ×                                 | ×                 |                   | ×                                  | ×                 |                   |
|                                    |             | Shake                         | ×                     |                            | ×         |                                  |                    | ×                    | ×                               | ×                           | ×                                 | ×                 |                   | ×                                  | ×                 |                   |
|                                    | FRONT AXLE  | Noise                         |                       |                            |           | ×                                | ×                  | ×                    | ×                               |                             | ×                                 | ×                 | ×                 | ×                                  | ×                 |                   |
|                                    |             | Shake                         |                       |                            |           | ×                                | ×                  | ×                    | ×                               |                             | ×                                 | ×                 | ×                 | ×                                  | ×                 |                   |
|                                    |             | Vibration                     |                       |                            |           | ×                                | ×                  | ×                    | ×                               |                             | ×                                 |                   | ×                 |                                    |                   | ×                 |
|                                    |             | Shimmy                        |                       |                            |           | ×                                | ×                  |                      | ×                               |                             | ×                                 | ×                 |                   | ×                                  | ×                 |                   |
|                                    |             | Judder                        |                       |                            |           | ×                                |                    |                      | ×                               |                             | ×                                 | ×                 |                   | ×                                  | ×                 |                   |
|                                    |             | Poor quality ride or handling |                       |                            |           | ×                                | ×                  |                      | ×                               |                             | ×                                 | ×                 |                   |                                    |                   |                   |

×: Applicable

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FAX

## PERIODIC MAINTENANCE

### FRONT WHEEL HUB AND KNUCKLE

#### Inspection

INFOID:0000000011670678

#### COMPONENT PART

Check that the mounting conditions (looseness, backlash) of each component and component conditions (wear, damage) are normal.

#### WHEEL HUB ASSEMBLY (BEARING-INTEGRATED TYPE)

Check the following items, and replace the part if necessary.

- Move wheel hub assembly in the axial direction by hand. Check there is no looseness of wheel bearing.

**Axial end play** : Refer to [FAX-55, "Wheel Bearing"](#).

- Rotate wheel hub assembly and check there is no unusual noise or other irregular conditions. If there is any of irregular conditions, replace wheel hub assembly.



## FRONT DRIVE SHAFT

## Inspection

INFOID:0000000011670679

Check the following items, and replace the part if necessary.

- Check drive shaft mounting point and joint for looseness and other damage.

**CAUTION:**

**Replace entire drive shaft assembly when noise or vibration occurs from drive shaft.**

- Check boot for cracks and other damage.

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# FRONT WHEEL HUB AND KNUCKLE

< REMOVAL AND INSTALLATION >

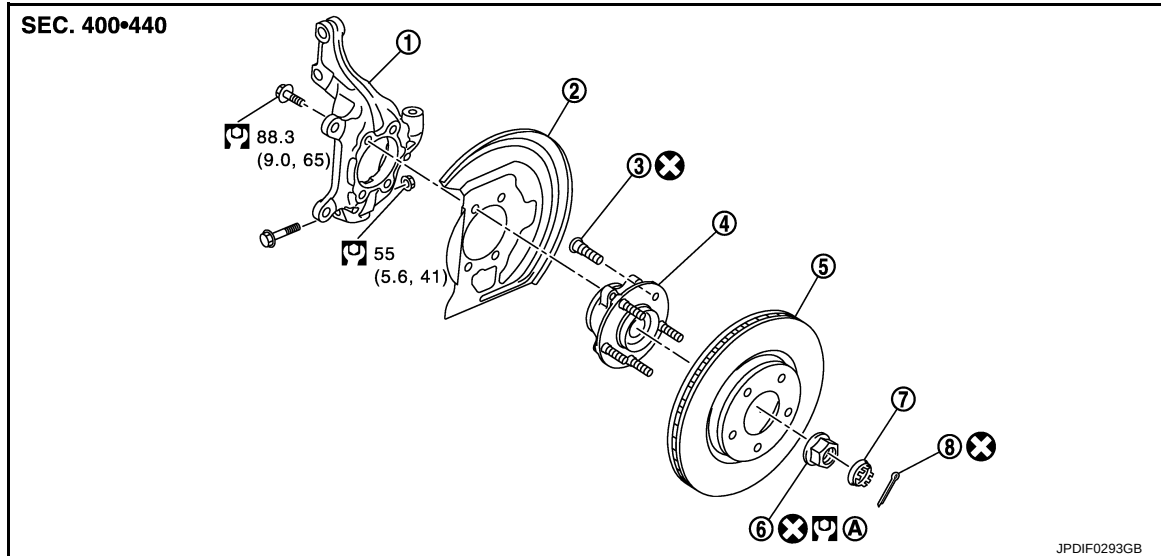
[FOR NISMO RS]

## REMOVAL AND INSTALLATION

### FRONT WHEEL HUB AND KNUCKLE

Exploded View

INFOID:0000000011670737



- |                                                                                                                                |                 |                       |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------|
| 1. Steering knuckle                                                                                                            | 2. Splash guard | 3. Hub bolt           |
| 4. Wheel hub assembly (Bearing-integrated type)                                                                                | 5. Disc rotor   | 6. Wheel hub lock nut |
| 7. Adjusting cap                                                                                                               | 8. Cotter pin   |                       |
| A. Tightening must be done following the installation procedure. Refer to <a href="#">FAX-10, "Removal and Installation"</a> . |                 |                       |

⊗: Always replace after every disassembly.

Ⓐ: N·m (kg·m, ft·lb)

## Removal and Installation

INFOID:0000000011670681

### REMOVAL

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

#### CAUTION:

**Never depress brake pedal while brake caliper is removed.**

5. Remove disc rotor.

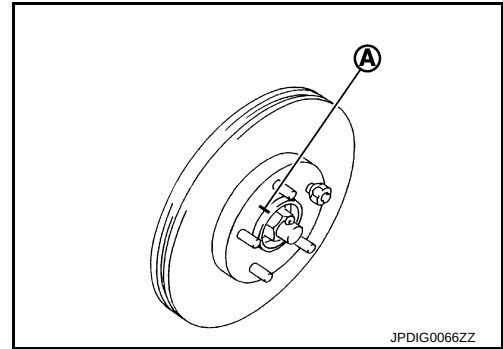
#### CAUTION:

# FRONT WHEEL HUB AND KNUCKLE

## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

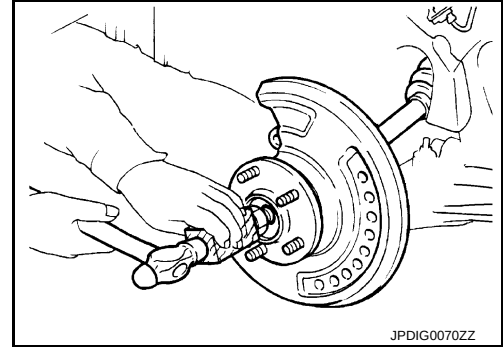
- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.
7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

### NOTE:

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
9. Remove steering outer socket from steering knuckle. Refer to [ST-17, "Removal and Installation"](#).
10. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
11. Suspend the drive shaft with suitable wire.

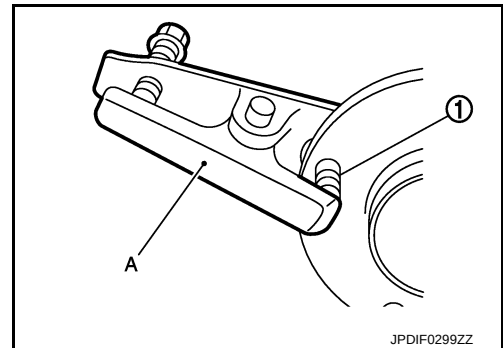
### CAUTION:

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

12. Remove steering knuckle from transverse link.
13. Remove wheel hub assembly and splash guard from steering knuckle.
14. Remove hub bolts (1) from wheel hub assembly, using the ball joint remover (A) (commercial service tool).

### CAUTION:

- Remove hub bolt only when necessary.
- Never hammer the hub bolt to avoid impact to the wheel hub assembly.
- Pull out the hub bolt in a direction perpendicular to the wheel hub assembly.



15. Perform inspection after removal. Refer to [FAX-12, "Inspection"](#).

## INSTALLATION

Note the following, and install in the reverse order of the removal.

# FRONT WHEEL HUB AND KNUCKLE

## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

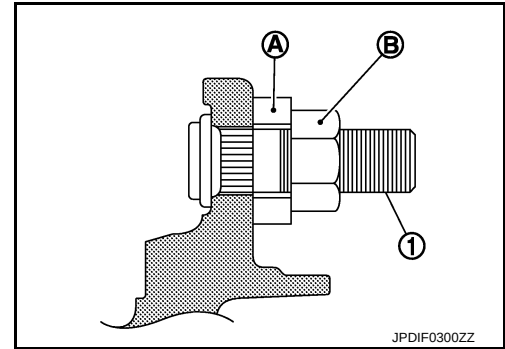
- Place a washer (A) as shown in the figure to install the hub bolts (1) by using the tightening force of the nut (B).

### CAUTION:

- Check that there is no clearance between wheel hub assembly, and hub bolt.
- Never reuse hub bolt.
- Never reuse steering knuckle and transverse link fixing nut.
- Clean the matching surface of wheel hub lock nut and wheel hub assembly.

### CAUTION:

Never apply lubricating oil to these matching surface.

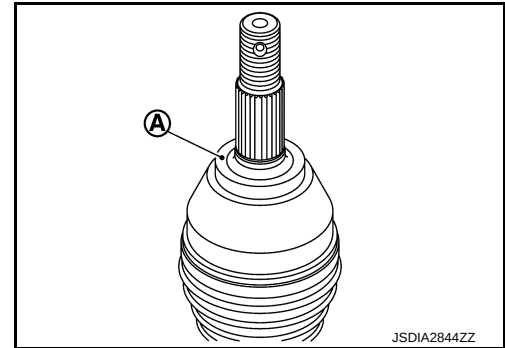


- Clean the matching surface of drive shaft, wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

### CAUTION:

Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.

Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)



- Use the following torque range for tightening the wheel hub lock nut.

 : 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)

### CAUTION:

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

### NOTE:

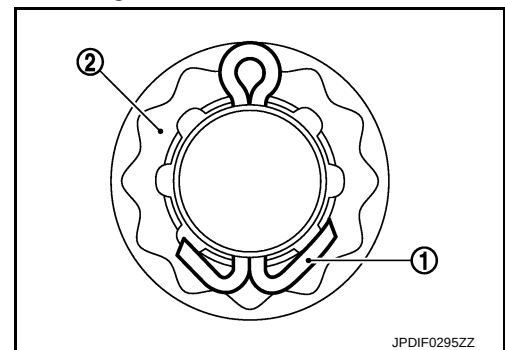
Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

- Align the matching marks that have been made during removal when reusing the disc rotor.
- When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

### CAUTION:

Never reuse cotter pin.

- Perform the final tightening of each of parts under unladen conditions, which were removed when removing wheel hub assembly and steering knuckle.
- Perform inspection after installation. Refer to [FAX-12, "Inspection"](#).



INFOID:000000011670682

## Inspection

### INSPECTION AFTER REMOVAL

Check the following items, and replace the part if necessary.

- Check components for deformation, cracks, and other damage.
- Check boots of transverse link and steering outer socket ball joint for breakage, axial end play, and swing torque. Refer to [FSU-13, "Inspection"](#) and [ST-19, "Inspection"](#).

### INSPECTION AFTER INSTALLATION

## FRONT WHEEL HUB AND KNUCKLE

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

1. Check wheel sensor harness for proper connection. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
2. Check the wheel alignment. Refer to [FSU-7, "Inspection"](#).
3. Adjust neutral position of steering angle sensor. Refer to [BRC-62, "Work Procedure"](#).

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# FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

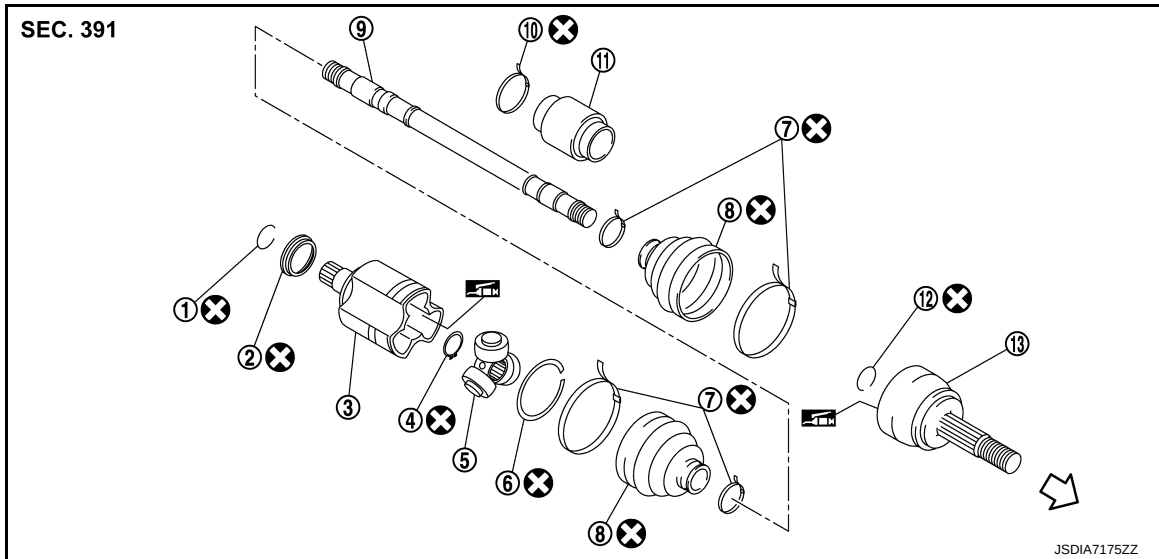
## FRONT DRIVE SHAFT BOOT

2WD

2WD : Exploded View

INFOID:000000011671084

LEFT SIDE



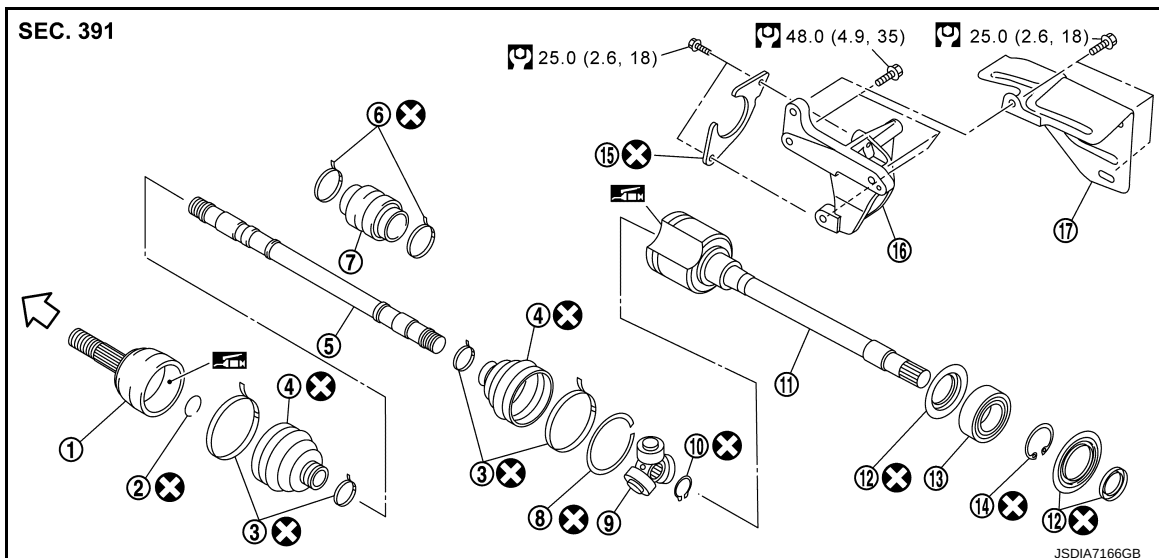
- |                        |                    |                   |
|------------------------|--------------------|-------------------|
| 1. Circular clip       | 2. Dust shield     | 3. Housing        |
| 4. Snap ring           | 5. Spider assembly | 6. Stopper ring   |
| 7. Boot band           | 8. Boot            | 9. Shaft          |
| 10. Damper band        | 11. Dynamic damper | 12. Circular clip |
| 13. Joint sub-assembly |                    |                   |

⇐ : Wheel side

: Fill NISSAN Genuine grease or equivalent.

⊗: Always replace after every disassembly.

RIGHT SIDE



- |                       |                  |                |
|-----------------------|------------------|----------------|
| 1. Joint sub-assembly | 2. Circular clip | 3. Boot band   |
| 4. Boot               | 5. Shaft         | 6. Damper band |

# FRONT DRIVE SHAFT BOOT

## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

- |                             |                    |                    |
|-----------------------------|--------------------|--------------------|
| 7. Dynamic damper           | 8. Stopper ring    | 9. Spider assembly |
| 10. Snap ring               | 11. Housing        | 12. Dust shield    |
| 13. Support bearing         | 14. Snap ring      | 15. Plate          |
| 16. Support bearing bracket | 17. Heat insulator |                    |

↩ : Wheel side

 : Fill NISSAN Genuine grease or equivalent.

⊗ : Always replace after every disassembly.

 : N·m (kg-m, ft-lb)

## 2WD : Removal and Installation

INFOID:0000000011671085

FAX

### REMOVAL

#### Wheel Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

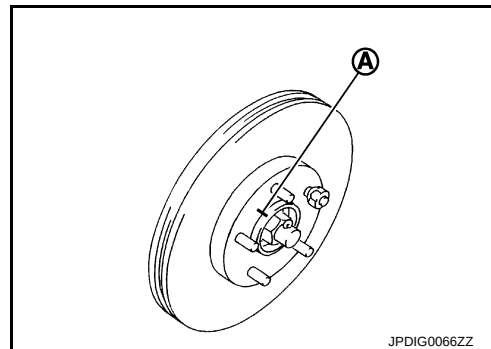
#### CAUTION:

**Never depress brake pedal while brake caliper is removed.**

5. Remove disc rotor.

#### CAUTION:

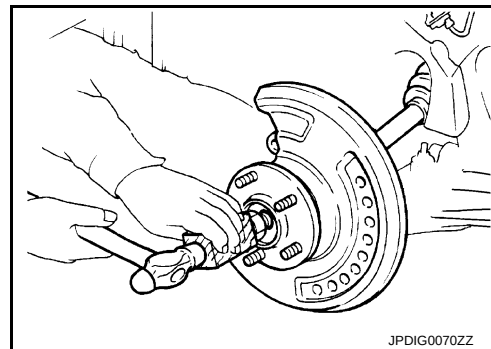
- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.
7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

#### NOTE:

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
10. Remove drive shaft from wheel hub assembly.

#### CAUTION:

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

# FRONT DRIVE SHAFT BOOT

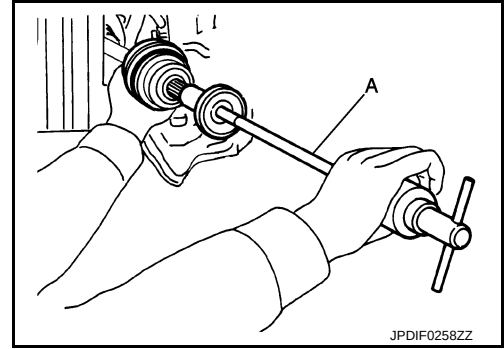
## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

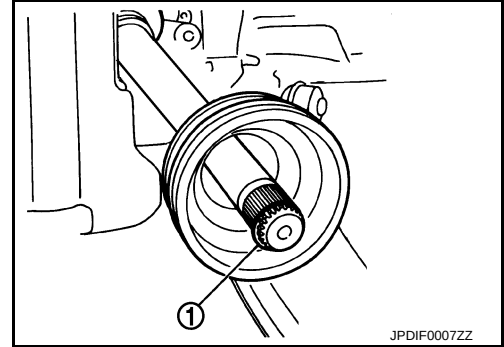
11. Remove boot bands, and then remove boot from joint sub-assembly.
12. Screw drive shaft puller (A) (commercial service tool) into joint sub-assembly screw part to a length of 30 mm (1.18 in) or more. Support drive shaft with one hand and pull out joint sub-assembly from shaft.

**CAUTION:**

- Align drive shaft puller and drive shaft and remove them by pulling firmly and uniformly.
- If joint sub-assembly cannot be pulled out, try after removing drive shaft from vehicle. Refer to [FAX-27, "2WD : Removal and Installation"](#).



13. Remove circular clip (1) from shaft.
14. Remove boot from shaft.



### Transaxle Side

- Remove boot after removing drive shaft.
- Remove: Refer to [FAX-27, "2WD : Removal and Installation"](#).
- Disassembly: Refer to [FAX-31, "2WD : Disassembly and Assembly"](#).

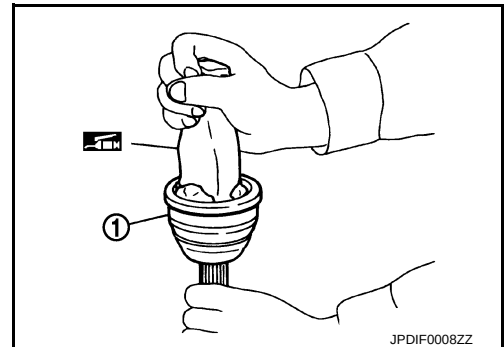
## INSTALLATION

### Wheel Side

1. Clean the old grease on joint sub-assembly with paper waste.
2. Fill serration slot joint sub-assembly (1) with NISSAN genuine grease or equivalent until the serration slot and ball groove become full to the brim.

**CAUTION:**

After applying grease, use a paper waste to wipe off old grease that has oozed out.



3. Install boot and boot bands to shaft.

**CAUTION:**

  - Wrap serration on shaft with tape to protect the boot from damage.
  - Never reuse boot and boot band.
4. Remove the tape wrapped around the serration on shaft.



# FRONT DRIVE SHAFT BOOT

## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

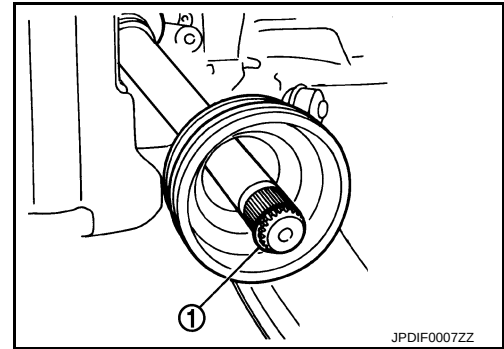
5. Position the circular clip (1) on groove at the shaft edge.

**CAUTION:**

**Never reuse circular clip.**

**NOTE:**

Drive joint inserter is recommended when installing circular clip.

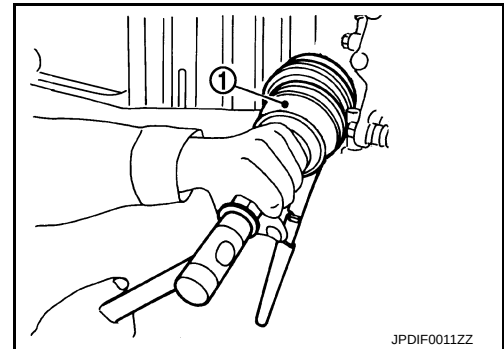


6. Align both center axes of the shaft edge and joint sub-assembly. Then assemble shaft with joint sub-assembly holding circular clip.

7. Install joint sub-assembly (1) to shaft using plastic hammer.

**CAUTION:**

- Check circular clip is properly positioned on groove of the joint sub-assembly.
- Confirm that joint sub-assembly is correctly engaged while rotating drive shaft.



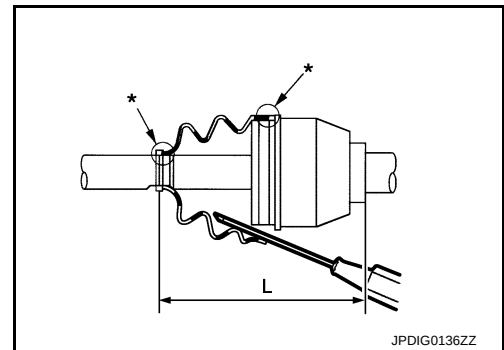
8. Apply the specified amount of grease into the boot inside from large diameter side of boot.

**Grease amount** : Refer to [FAX-55, "Drive Shaft"](#).

9. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or joint sub-assembly, boot may be removed. Remove all grease from the boot mounting surface.



10. To prevent the deformation of the boot, adjust the boot installation length (L) to the specified value shown below by inserting the suitable tool into inside of the boot from the large diameter side of the boot and discharging the inside air.

**L** : Refer to [FAX-55, "Drive Shaft"](#).

**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with a tip of tool.

# FRONT DRIVE SHAFT BOOT

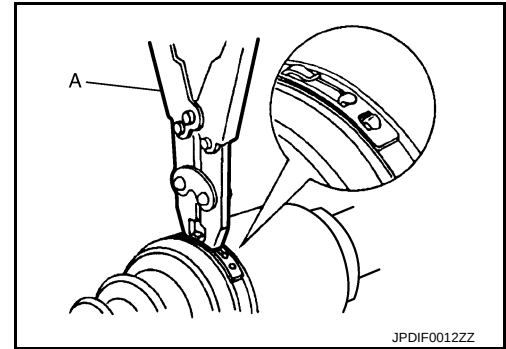
## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

11. Secure the large and small ends of the boot with boot bands using the boot band crimping tool (A) [SST:KV40107300 ( — )].

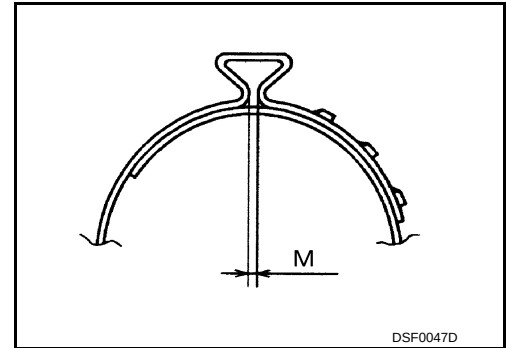
**CAUTION:**

- Never reuse boot band.



- Secure boot band so that dimension (M) meets the specification as shown in the figure.

**Dimension (M) : 1.0 – 4.0 mm (0.039 – 0.157 in)**



12. Check that displacement does not occur when boot is rotated with the joint sub-assembly and shaft fixed.

**CAUTION:**

- Reinstall them using boot bands when boot installation positions become incorrect.
- Never reuse boot band.

13. Clean the matching surface of wheel hub lock nut and wheel hub assembly.

**CAUTION:**

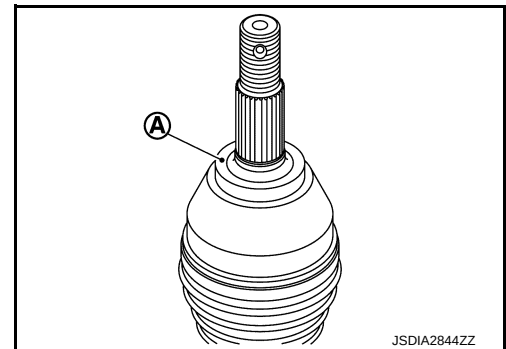
**Never apply lubricating oil to these matching surface.**

14. Clean the matching surface of drive shaft, wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

**CAUTION:**

**Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.**

**Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)**



15. Insert drive shaft to wheel hub assembly, and then temporarily tighten wheel hub lock nut.

**CAUTION:**

- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

16. Install strut assembly to steering knuckle. Refer to [FSU-9, "Exploded View"](#).

17. Install disc rotor. Refer to [FAX-10, "Removal and Installation"](#).

18. Install caliper assembly to steering knuckle. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

19. Install lock plate to strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).

20. Install wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).

21. Use the following torque range for tightening the wheel hub lock nut.

 : **180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)**

# FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

## CAUTION:

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

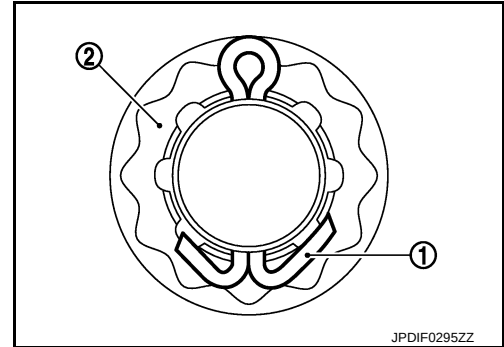
## NOTE:

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

22. When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

## CAUTION:

Never reuse cotter pin.



23. Install tires. Refer to [WT-39, "Exploded View"](#).

24. Perform inspection after installation. Refer to [FAX-19, "2WD : Inspection"](#).

Transaxle Side

- Install drive shaft to vehicle.
- Installation: Refer to [FAX-27, "2WD : Removal and Installation"](#).
- Assembly: Refer to [FAX-31, "2WD : Disassembly and Assembly"](#).

## 2WD : Inspection

INFOID:0000000011671086

## INSPECTION AFTER INSTALLATION

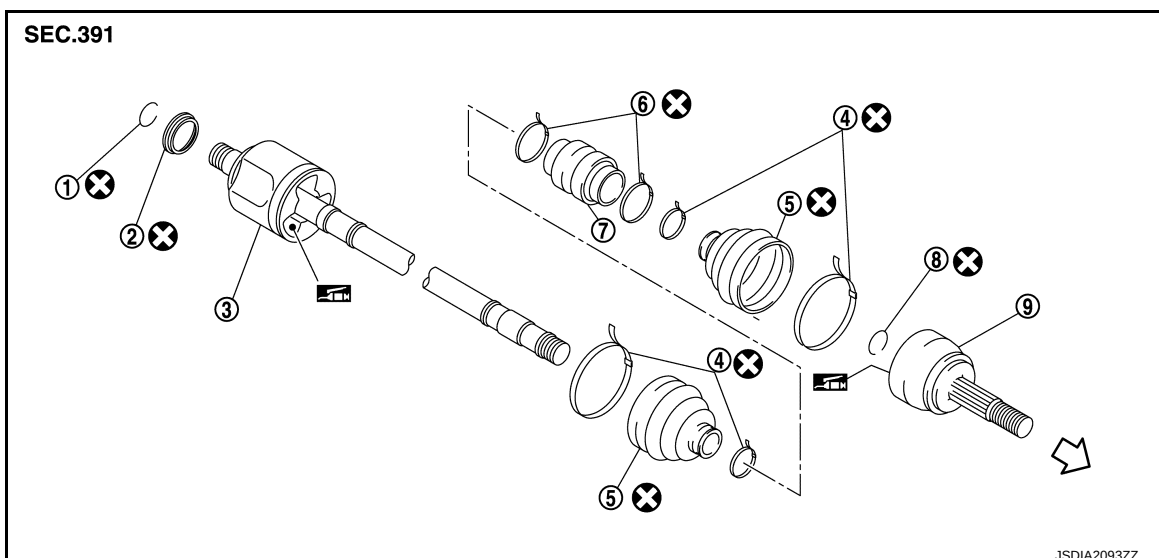
1. Check wheel sensor harness for proper connection. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
2. Check the wheel alignment. Refer to [FSU-7, "Inspection"](#).
3. Adjust neutral position of steering angle sensor. Refer to [BRC-62, "Work Procedure"](#).

## AWD

## AWD : Exploded View

INFOID:0000000011671718

LEFT SIDE



# FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

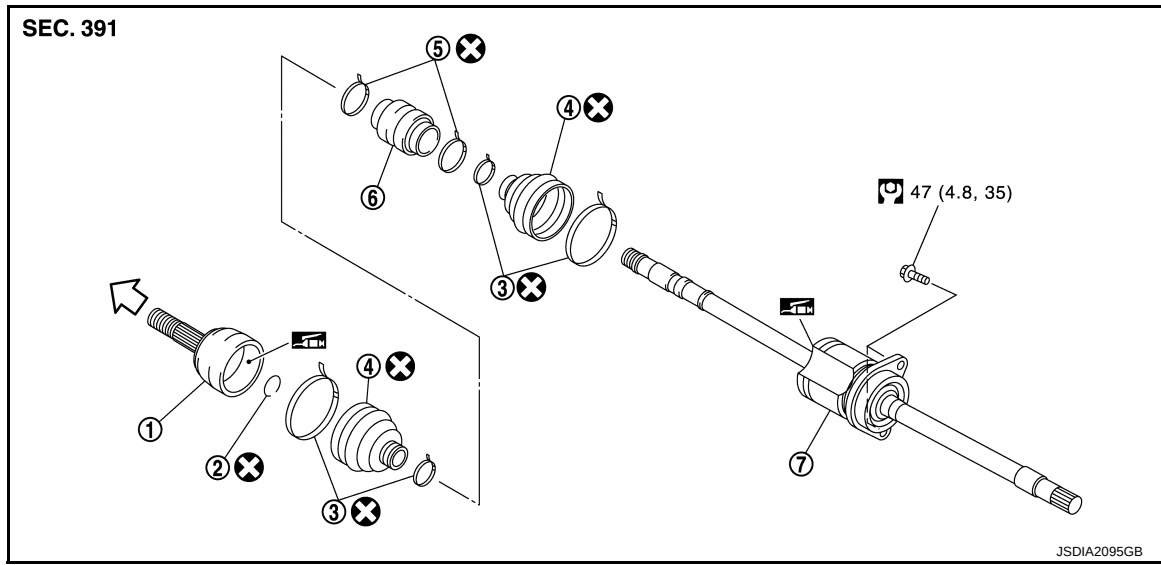
- |                   |                  |                       |
|-------------------|------------------|-----------------------|
| 1. Circular clip  | 2. Dust shield   | 3. Housing assembly   |
| 4. Boot band      | 5. Boot          | 6. Damper band        |
| 7. Dynamic damper | 8. Circular clip | 9. Joint sub-assembly |

⇐ : Wheel side

 : Fill NISSAN Genuine grease or equivalent.

 : Always replace after every disassembly.

## RIGHT SIDE



- |                       |                  |                   |
|-----------------------|------------------|-------------------|
| 1. Joint sub-assembly | 2. Circular clip | 3. Boot band      |
| 4. Boot               | 5. Damper band   | 6. Dynamic damper |

⇐ : Wheel side

 : Fill NISSAN Genuine grease or equivalent.

 : Always replace after every disassembly.

 : N·m (kg-m, ft-lb)

## AWD : Removal and Installation

INFOID:000000011671719

### REMOVAL

#### Wheel Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

#### CAUTION:

**Never depress brake pedal while brake caliper is removed.**

5. Remove disc rotor.

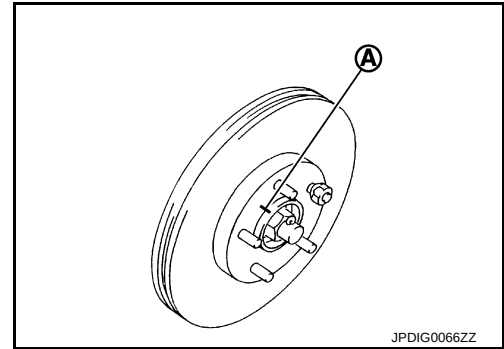
#### CAUTION:

# FRONT DRIVE SHAFT BOOT

## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

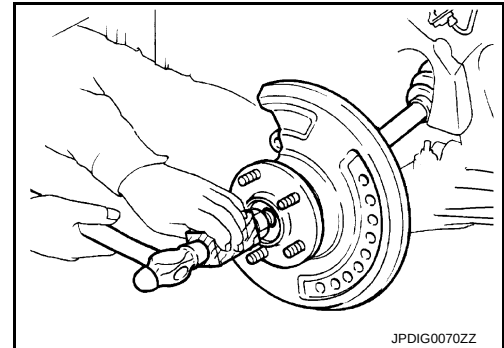
- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.
7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

### NOTE:

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
10. Remove drive shaft from wheel hub assembly.

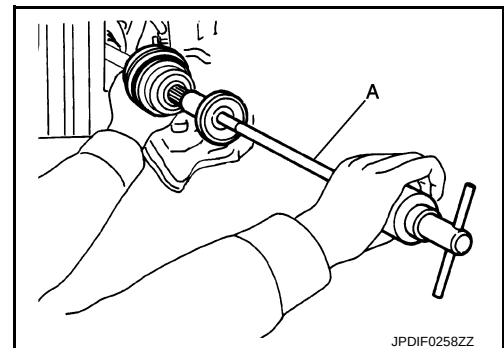
### CAUTION:

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

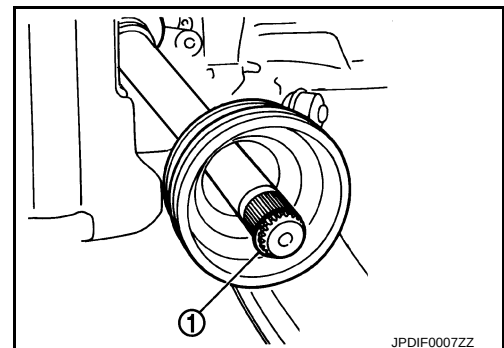
11. Remove boot bands, and then remove boot from joint sub-assembly.
12. Screw drive shaft puller (A) (commercial service tool) into joint sub-assembly screw part to a length of 30 mm (1.18 in) or more. Support drive shaft with one hand and pull out joint sub-assembly from shaft.

### CAUTION:

- Align drive shaft puller and drive shaft and remove them by pulling firmly and uniformly.
- If joint sub-assembly cannot be pulled out, try after removing drive shaft from vehicle. Refer to [FAX-43, "AWD : Removal and Installation"](#).



13. Remove circular clip (1) from shaft.
14. Remove boot from shaft.



Transaxle Side

- Remove boot after removing drive shaft.

# FRONT DRIVE SHAFT BOOT

## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

- Remove: Refer to [FAX-43, "AWD : Removal and Installation"](#).
- Disassembly: Refer to [FAX-47, "AWD : Disassembly and Assembly"](#).

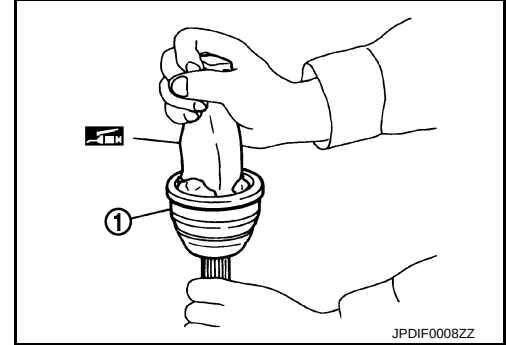
## INSTALLATION

### Wheel Side

1. Clean the old grease on joint sub-assembly with paper waste.
2. Fill serration slot joint sub-assembly (1) with NISSAN genuine grease or equivalent until the serration slot and ball groove become full to the brim.

#### **CAUTION:**

After applying grease, use a paper waste to wipe off old grease that has oozed out.



3. Install boot and boot bands to shaft.

#### **CAUTION:**

- Wrap serration on shaft with tape to protect the boot from damage.
- Never reuse boot and boot band.

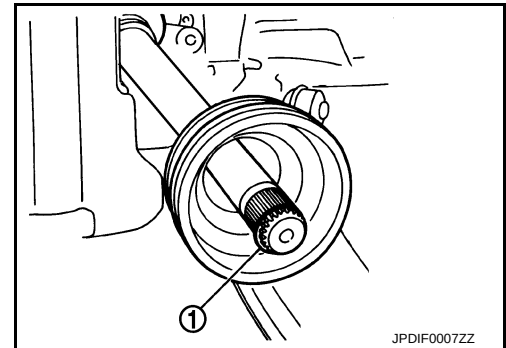
4. Remove the tape wrapped around the serration on shaft.
5. Position the circular clip (1) on groove at the shaft edge.

#### **CAUTION:**

Never reuse circular clip.

#### **NOTE:**

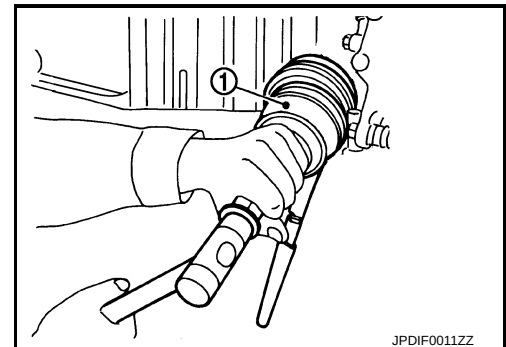
Drive joint inserter is recommended when installing circular clip.



6. Align both center axes of the shaft edge and joint sub-assembly. Then assemble shaft with joint sub-assembly holding circular clip.
7. Install joint sub-assembly (1) to shaft using plastic hammer.

#### **CAUTION:**

- Check circular clip is properly positioned on groove of the joint sub-assembly.
- Confirm that joint sub-assembly is correctly engaged while rotating drive shaft.



8. Apply the specified amount of grease into the boot inside from large diameter side of boot.

**Grease amount** : Refer to [FAX-55, "Drive Shaft"](#).

# FRONT DRIVE SHAFT BOOT

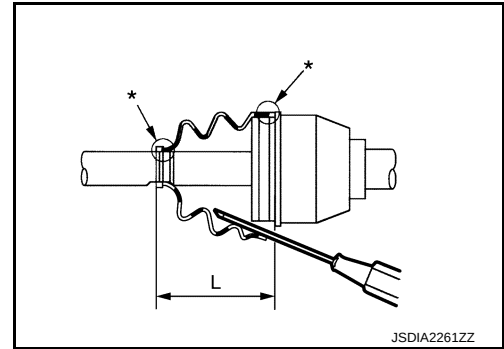
## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

9. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or joint sub-assembly, boot may be removed. Remove all grease from the boot mounting surface.



10. To prevent the deformation of the boot, adjust the boot installation length (L) to the specified value shown below by inserting the suitable tool into inside of the boot from the large diameter side of the boot and discharging the inside air.

**L** : Refer to [FAX-55, "Drive Shaft"](#).

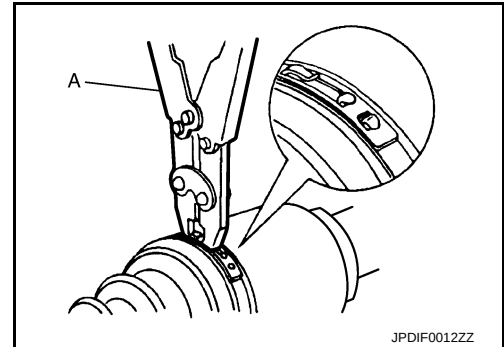
**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with a tip of tool.

11. Secure the large and small ends of the boot with boot bands using the boot band crimping tool (A) [SST:KV40107300 ( — )].

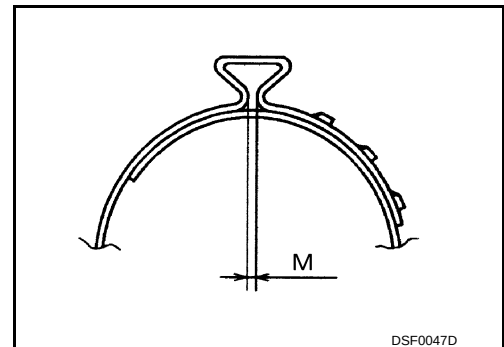
**CAUTION:**

- Never reuse boot band.



- Secure boot band so that dimension (M) meets the specification as shown in the figure.

**Dimension (M)** : 2.0 – 3.0 mm (0.079 – 0.118 in)



12. Check that displacement does not occur when boot is rotated with the joint sub-assembly and shaft fixed.

**CAUTION:**

- Reinstall them using boot bands when boot installation positions become incorrect.
- Never reuse boot band.

13. Clean the matching surface of wheel hub lock nut and wheel hub assembly.

**CAUTION:**

Never apply lubricating oil to these matching surface.

## FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

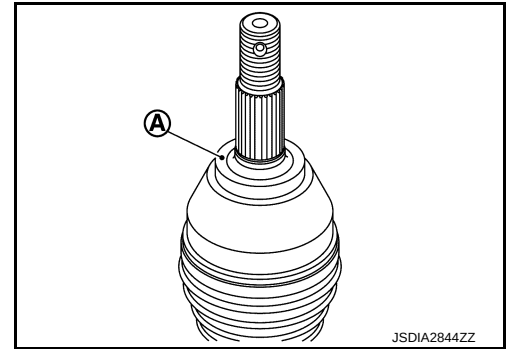
[FOR NISMO RS]

14. Clean the matching surface of drive shaft, wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

**CAUTION:**

Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.

Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)



15. Insert drive shaft to wheel hub assembly, and then temporarily tighten wheel hub lock nut.
- CAUTION:**
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
  - Never reuse wheel hub lock nut.
16. Install strut assembly to steering knuckle. Refer to [FSU-9, "Exploded View"](#).
17. Install disc rotor. Refer to [FAX-10, "Removal and Installation"](#).
18. Install caliper assembly to steering knuckle. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).
19. Install lock plate to strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
20. Install wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
21. Use the following torque range for tightening the wheel hub lock nut.

 : 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)

**CAUTION:**

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

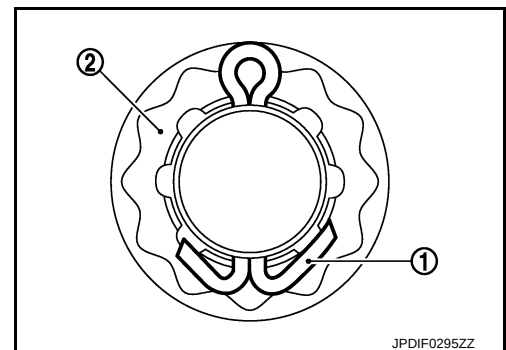
**NOTE:**

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

22. When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

**CAUTION:**

Never reuse cotter pin.



23. Install tires. Refer to [WT-39, "Exploded View"](#).
24. Perform inspection after installation. Refer to [FAX-24, "AWD : Inspection"](#).

Transaxle Side

- Install drive shaft to vehicle.
- Installation: Refer to [FAX-43, "AWD : Removal and Installation"](#).
- Assembly: Refer to [FAX-47, "AWD : Disassembly and Assembly"](#).

AWD : Inspection

INFOID:000000011671871

INSPECTION AFTER INSTALLATION



## FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

1. Check wheel sensor harness for proper connection. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
2. Check the wheel alignment. Refer to [FSU-7, "Inspection"](#).
3. Adjust neutral position of steering angle sensor. Refer to [BRC-62, "Work Procedure"](#).

A

B

C

FAX

E

F

G

H

I

J

K

L

M

N

O

P

# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

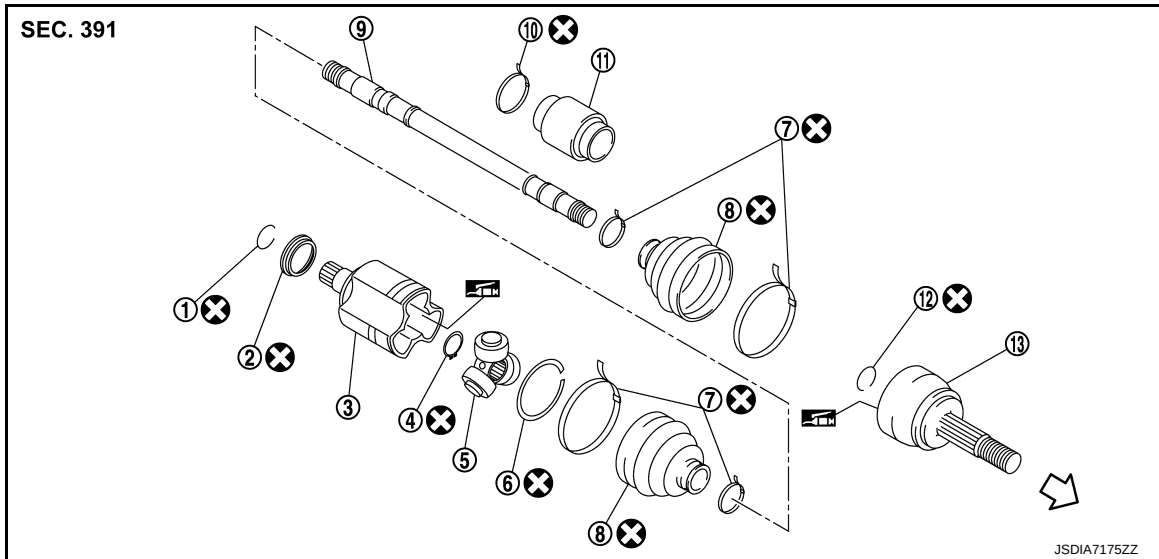
## FRONT DRIVE SHAFT

2WD

2WD : Exploded View

INFOID:000000011671869

LEFT SIDE



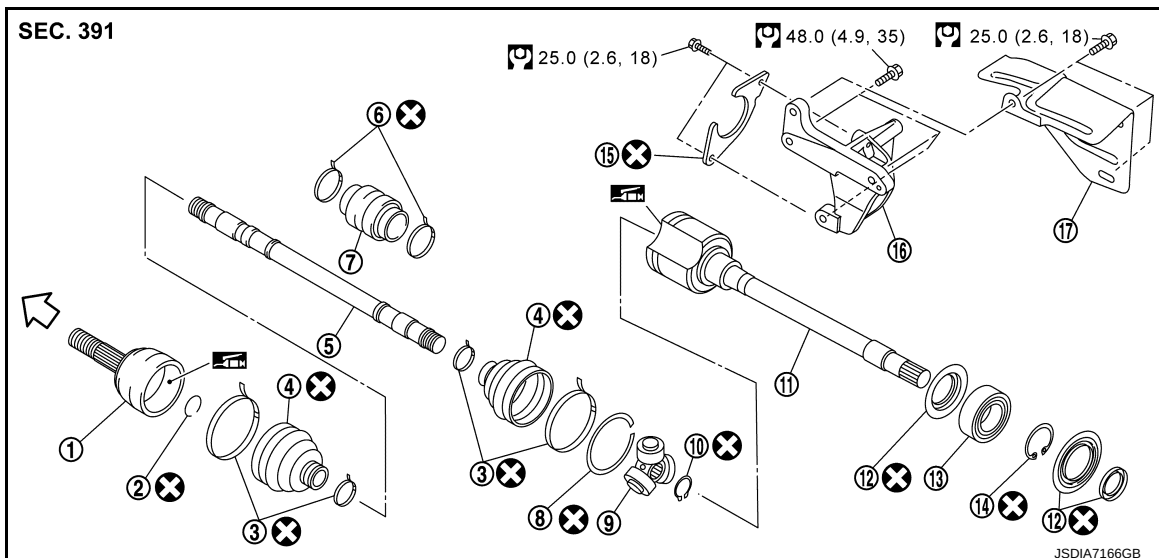
- |                        |                    |                   |
|------------------------|--------------------|-------------------|
| 1. Circular clip       | 2. Dust shield     | 3. Housing        |
| 4. Snap ring           | 5. Spider assembly | 6. Stopper ring   |
| 7. Boot band           | 8. Boot            | 9. Shaft          |
| 10. Damper band        | 11. Dynamic damper | 12. Circular clip |
| 13. Joint sub-assembly |                    |                   |

⇐ : Wheel side

: Fill NISSAN Genuine grease or equivalent.

⊗: Always replace after every disassembly.

RIGHT SIDE



- |                       |                  |                |
|-----------------------|------------------|----------------|
| 1. Joint sub-assembly | 2. Circular clip | 3. Boot band   |
| 4. Boot               | 5. Shaft         | 6. Damper band |

# FRONT DRIVE SHAFT

[FOR NISMO RS]

## < REMOVAL AND INSTALLATION >

- |                             |                    |                    |
|-----------------------------|--------------------|--------------------|
| 7. Dynamic damper           | 8. Stopper ring    | 9. Spider assembly |
| 10. Snap ring               | 11. Housing        | 12. Dust shield    |
| 13. Support bearing         | 14. Snap ring      | 15. Plate          |
| 16. Support bearing bracket | 17. Heat insulator |                    |

↩ : Wheel side

 : Fill NISSAN Genuine grease or equivalent.

⊗ : Always replace after every disassembly.

 : N·m (kg-m, ft-lb)

## 2WD : Removal and Installation

INFOID:000000011671710

FAX

### REMOVAL

#### Left Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

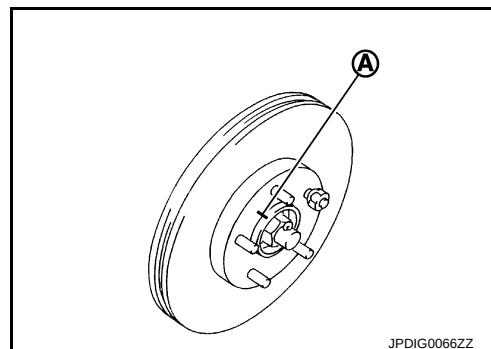
#### CAUTION:

**Never depress brake pedal while brake caliper is removed.**

5. Remove disc rotor.

#### CAUTION:

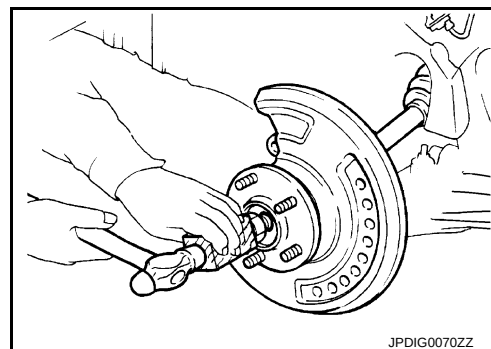
- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.
7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

#### NOTE:

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
  9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
  10. Remove drive shaft from wheel hub assembly.
- CAUTION:**
- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
  - Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

## FRONT DRIVE SHAFT

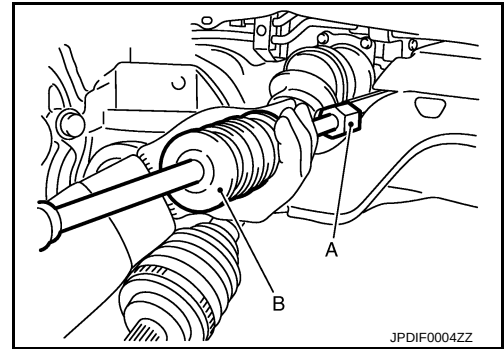
### < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

11. Use the drive shaft attachment (A) [SST:KV40107500 ( — )] and a sliding hammer (B) (commercial service tool) while inserting tip of the drive shaft attachment between shaft and transaxle assembly, and then remove drive shaft from transaxle assembly.

**CAUTION:**

- Never place drive shaft joint at an extreme angle when removing drive shaft. Also be careful not to overextend slide joint.
- Confirm that the circular clip is attached to the drive shaft.



#### Right Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

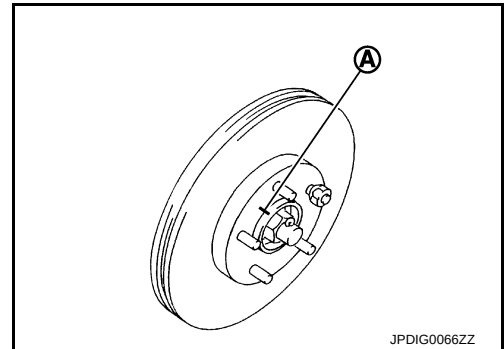
**CAUTION:**

Never depress brake pedal while brake caliper is removed.

5. Remove disc rotor.

**CAUTION:**

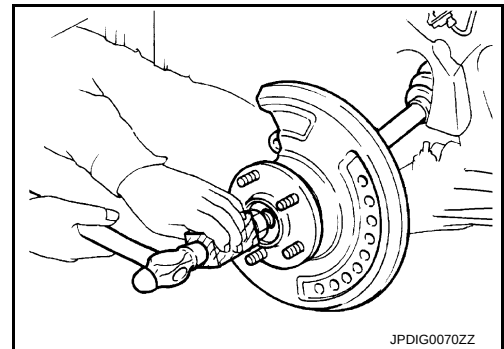
- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.
7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

**NOTE:**

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
10. Remove drive shaft from wheel hub assembly.

**CAUTION:**

  - Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
  - Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.
11. Remove plate from support bearing bracket.
12. Remove drive shaft assembly from transaxle assembly.

## FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

### CAUTION:

Never place drive shaft joint at an extreme angle when removing drive shaft. Also be careful not to overextend slide joint.

13. Remove heat insulator.

14. Remove support bearing bracket.

### INSTALLATION

Note the following, and install in the reverse order of removal.

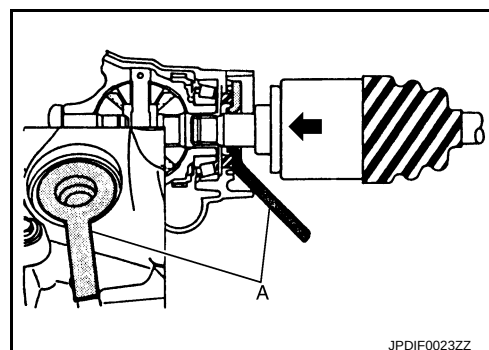
Left Side

- Always replace differential side oil seal with new one when installing drive shaft. Refer to [TM-80. "Removal and Installation"](#).

- Place the protector (A) [SST:KV38107900 ( — )] onto transaxle assembly to prevent damage to the differential side oil seal while inserting drive shaft. Slide drive shaft sliding joint and tap with a hammer to install securely.

### CAUTION:

- Check that circular clip is completely engaged.
- Never reuse circular clip.
- Never reuse differential side oil seal.



- Clean the matching surface of wheel hub lock nut and wheel hub assembly.

### CAUTION:

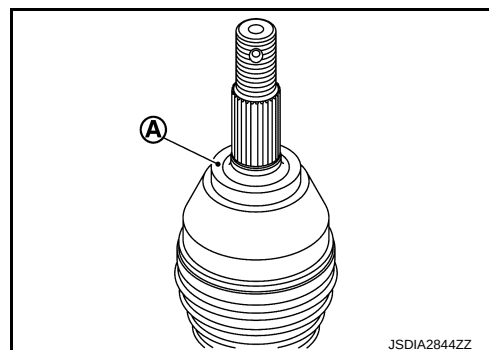
Never apply lubricating oil to these matching surface.

- Clean the matching surface of drive shaft and wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

### CAUTION:

Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.

Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)



- Use the following torque range for tightening the wheel hub lock nut.

 : 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)

### CAUTION:

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

### NOTE:

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

- Align the matching marks that have been made during removal when reusing the disc rotor.

## FRONT DRIVE SHAFT

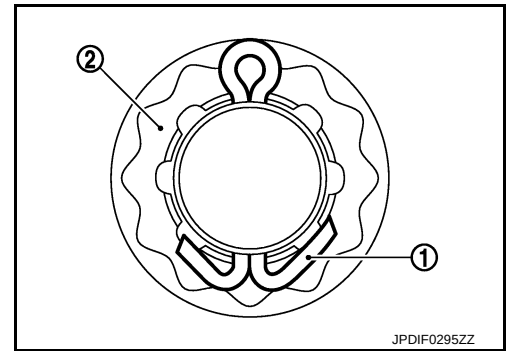
[FOR NISMO RS]

### < REMOVAL AND INSTALLATION >

- When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

**CAUTION:**

**Never reuse cotter pin.**



- Perform the final tightening of each of parts under unladen conditions, which were removed when removing wheel hub assembly and steering knuckle.
- Perform inspection after installation. Refer to [FAX-42, "2WD : Inspection"](#).

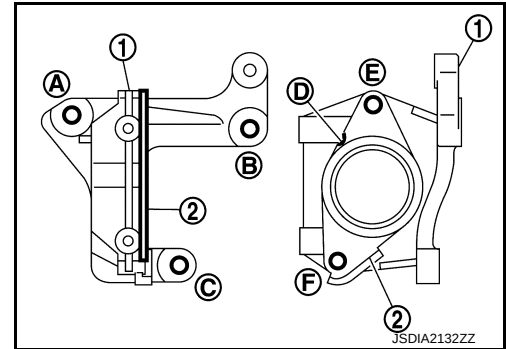
#### Right Side

- Always replace differential side oil seal with new one when installing drive shaft. Refer to [TM-80, "Removal and Installation"](#).

- Install support bearing bracket (1) in following procedure,
  - Temporarily tighten mounting bolts (A), (B), (C), then tighten them to specified torque.
  - Set plate (2) so that notch (D) becomes upper side. Temporarily tighten mounting bolts (E), (F), then tighten them to specified torque.

**CAUTION:**

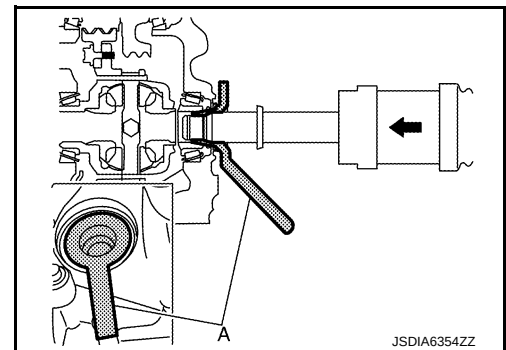
**Never reuse plate.**



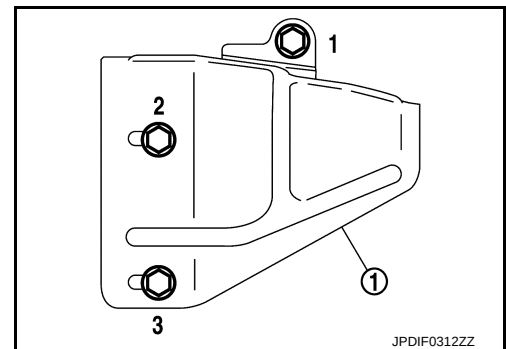
- Place the protector (A) [SST:KV38107900 ( — )] onto transaxle assembly to prevent damage to the differential side oil seal while inserting drive shaft. Slide drive shaft sliding joint and tap with a hammer to install securely.

**CAUTION:**

**Never reuse differential oil seal.**



- To install mounting nuts of the heat insulator (1), temporarily tighten them in numerical order shown in the figure and tighten them to the specified torque.



- Clean the matching surface of wheel hub lock nut and wheel hub assembly.

**CAUTION:**

**Never apply lubricating oil to these matching surface.**

# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

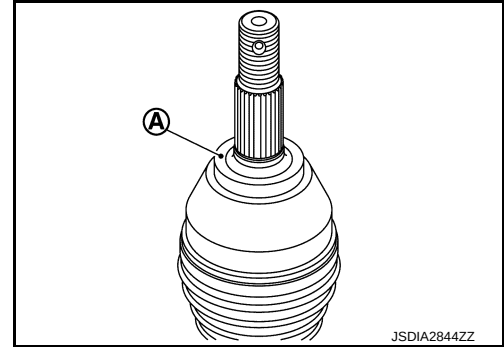
[FOR NISMO RS]

- Clean the matching surface of drive shaft and wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

**CAUTION:**

**Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.**

**Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)**



- Use the following torque range for tightening the wheel hub lock nut.

 **: 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)**

**CAUTION:**

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

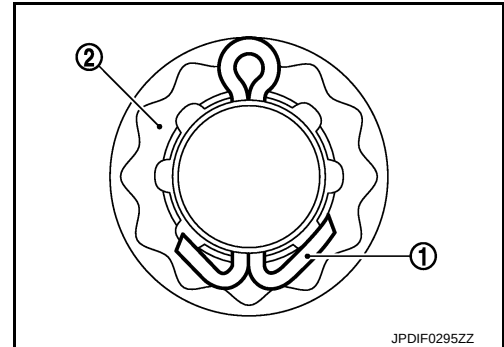
**NOTE:**

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

- Align the matching marks that have been made during removal when reusing the disc rotor.
- When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

**CAUTION:**

**Never reuse cotter pin.**



- Perform the final tightening of each of parts under unladen conditions, which were removed when removing wheel hub assembly and steering knuckle.
- Perform inspection after installation. Refer to [FAX-42, "2WD : Inspection"](#).

## 2WD : Disassembly and Assembly

INFOID:0000000011671711

### DISASSEMBLY

#### Wheel Side

1. Fix shaft with a vise.

**CAUTION:**

**Protect shaft using aluminum or copper plates when fixing with a vise.**

2. Remove boot bands, and then remove boot from joint sub-assembly.

## FRONT DRIVE SHAFT

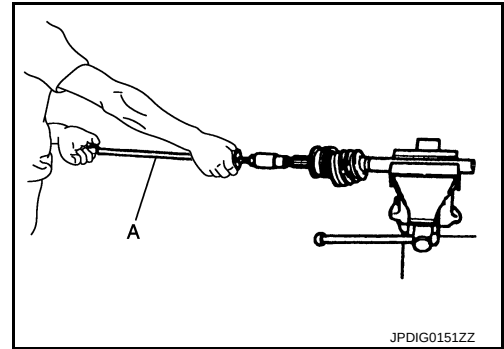
### < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

3. Screw drive shaft puller (A) (commercial service tool) into joint sub-assembly screw part to a length of 30 mm (1.18 in) or more. Support drive shaft with one hand and pull out joint sub-assembly from shaft.

**CAUTION:**

- Align drive shaft puller and drive shaft and remove them by pulling firmly and uniformly.
- If joint sub-assembly cannot be removed after five or more unsuccessful attempts, replace shaft and joint sub-assembly as a set.



4. Remove circular clip from shaft.
5. Remove boot from shaft.

#### Transaxle Side (Left Drive Shaft)

1. Fix shaft with a vise.

**CAUTION:**

**Protect shaft using aluminum or copper plates when fixing with a vise.**

2. Remove boot bands, and then remove boot from housing assembly.
3. Remove stopper ring.
4. Put matching marks on housing assembly and shaft, and then pull out housing assembly from shaft.

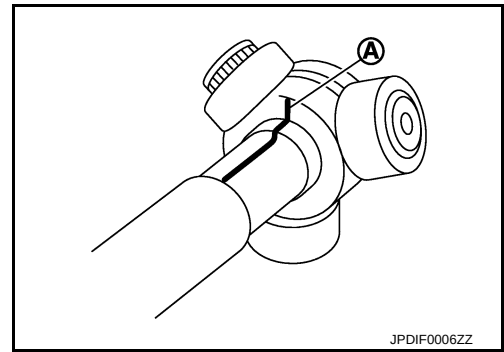
**CAUTION:**

**Use paint or an equivalent for matching marks. Never scratch the surfaces.**

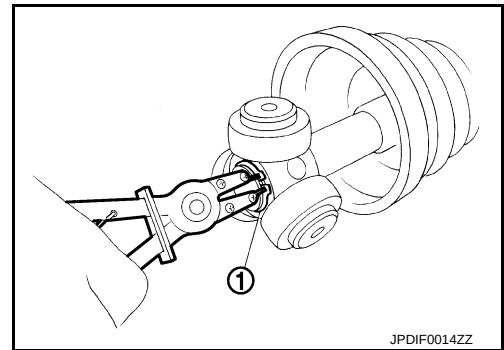
5. Clean old grease on housing with paper waste.
6. Put matching marks (A) on the spider assembly and shaft.

**CAUTION:**

**Use paint or an equivalent for matching marks. Never scratch the surfaces.**



7. Remove snap ring (1), and then remove spider assembly from shaft.



8. Remove boot from shaft.
9. Remove circular clip from housing assembly.
10. Remove dust shield from housing assembly.
11. Remove damper bands, then remove dynamic damper from shaft.

#### Transaxle Side (Right Drive Shaft)

1. Fix shaft with a vise.

**CAUTION:**

**Protect shaft using aluminum or copper plates when fixing with a vise.**



## FRONT DRIVE SHAFT

[FOR NISMO RS]

### < REMOVAL AND INSTALLATION >

2. Remove boot bands, and then remove boot from housing assembly.
3. Remove stopper ring.
4. Put matching marks on housing assembly and shaft, and then pull out housing assembly from shaft.

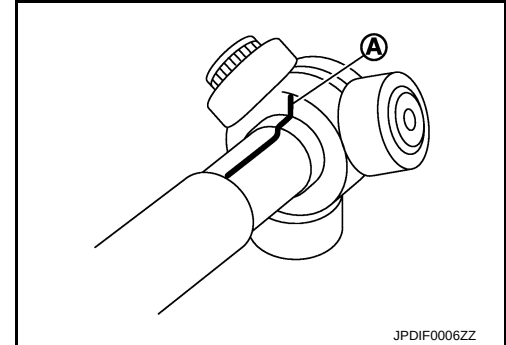
**CAUTION:**

**Use paint or an equivalent for matching marks. Never scratch the surfaces.**

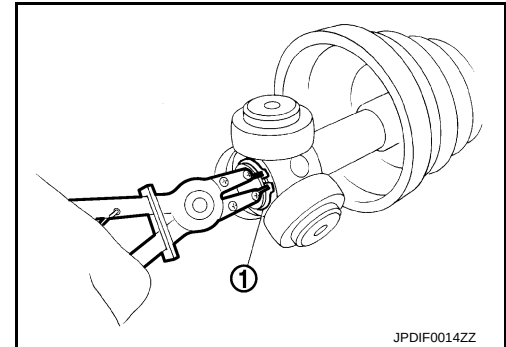
5. Clean old grease on housing with paper waste.
6. Put matching marks (A) on the spider assembly and shaft.

**CAUTION:**

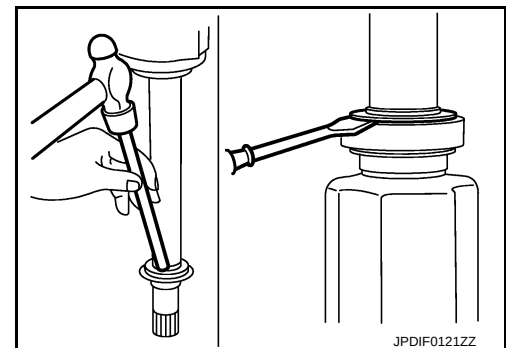
**Use paint or an equivalent for matching marks. Never scratch the surfaces.**



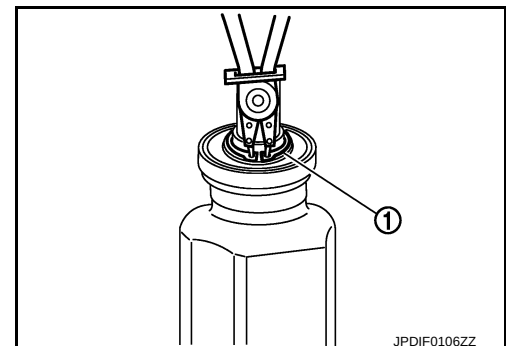
7. Remove snap ring (1), and then remove spider assembly from shaft.



8. Remove boot from shaft.
9. Remove support bearing, follow the procedur described below.
  - a. Remove dust shield from housing.



- b. Remove snap ring (1).



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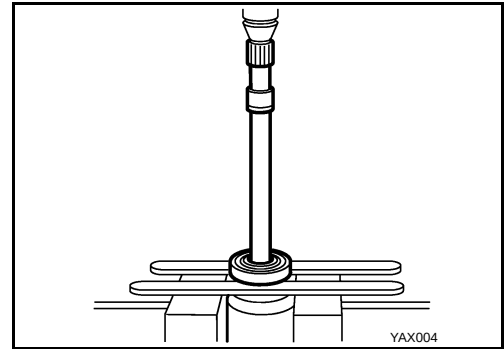
P

## FRONT DRIVE SHAFT

### < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

- c. Press out support bearing from housing.



- d. Remove dust shield from housing.  
10. Remove damper bands, then remove dynamic damper from shaft.

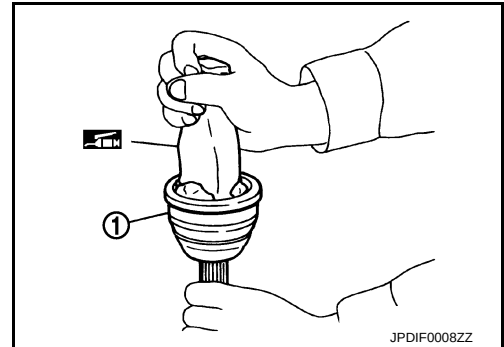
### ASSEMBLY

#### Wheel Side

1. Clean the old grease on joint sub-assembly with paper waste.
2. Fill serration slot joint sub-assembly (1) with NISSAN genuine grease or equivalent until the serration slot and ball groove become full to the brim.

#### **CAUTION:**

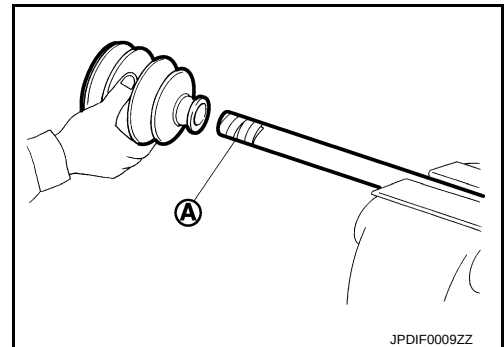
After applying grease, use a paper waste to wipe off old grease that has oozed out.



3. Install boot and boot bands to shaft.

#### **CAUTION:**

- Wrap serration on shaft with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



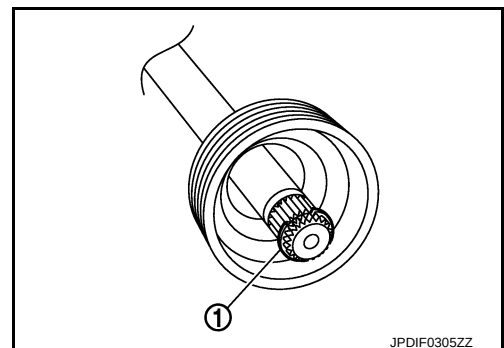
4. Remove the tape wrapped around the serration on shaft.
5. Position the circular clip (1) on groove at the shaft edge.

#### **CAUTION:**

Never reuse circular clip.

#### **NOTE:**

Drive joint inserter is recommended when installing circular clip.



## FRONT DRIVE SHAFT

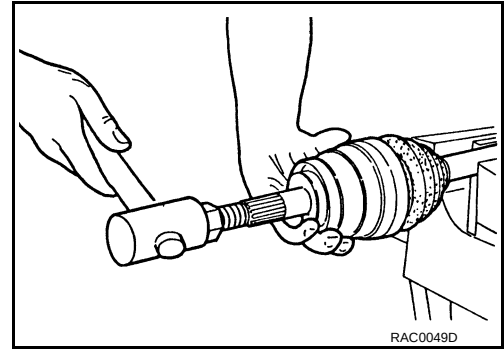
### < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

6. Align both center axes of the shaft edge and joint sub-assembly. Then assemble shaft with joint sub-assembly holding circular clip.
7. Install joint sub-assembly to shaft using plastic hammer.

**CAUTION:**

- Check circular clip is properly positioned on groove of the joint sub-assembly.
- Confirm that joint sub-assembly is correctly engaged while rotating drive shaft.



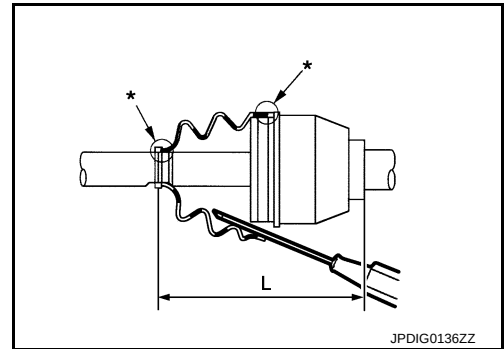
8. Apply the specified amount of grease into the boot inside from large diameter side of boot.

**Grease amount** : Refer to [FAX-55, "Drive Shaft"](#).

9. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or joint sub-assembly, boot may be removed. Remove all grease from the boot mounting surface.



10. To prevent the deformation of the boot, adjust the boot installation length (L) to the specified value shown below by inserting the suitable tool into inside of the boot from the large diameter side of the boot and discharging the inside air.

**L** : Refer to [FAX-55, "Drive Shaft"](#).

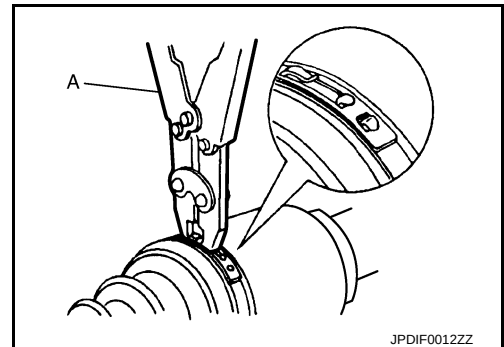
**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with a tip of tool.

11. Secure the large and small ends of the boot with boot bands using the boot band crimping tool (A) [SST:KV40107300 ( — )].

**CAUTION:**

- Never reuse boot band.



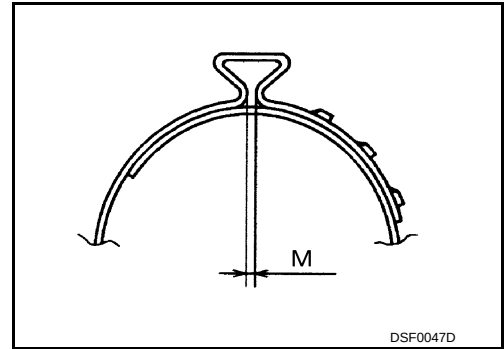
## FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

- Secure boot band so that dimension (M) meets the specification as shown in the figure.

**Dimension (M) : 1.0 – 4.0 mm (0.039 – 0.157 in)**



12. Check that displacement does not occur when boot is rotated with the joint sub-assembly and shaft fixed.

**CAUTION:**

- Reinstall them using boot bands when boot installation positions become incorrect.
- Never reuse boot band.

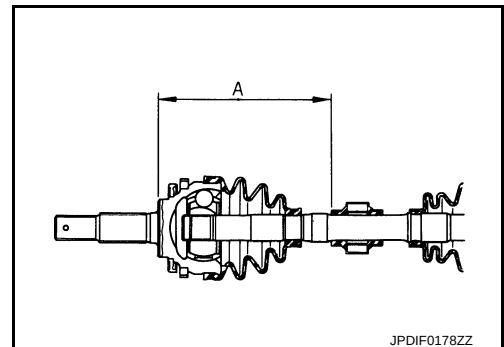
Transaxle Side (Left Drive Shaft)

1. Clean the old grease on housing with paper waste.
2. Install dust shield to housing assembly.  
**CAUTION:**  
**Never reuse dust shield.**
3. Install circular clip to housing assembly.  
**CAUTION:**  
**Never reuse circular clip.**
4. Install dynamic damper, follow the procedure described below.
  - a. Install dynamic damper to shaft.
  - b. Secure dynamic damper with bands in the following specified position (A) when installing.

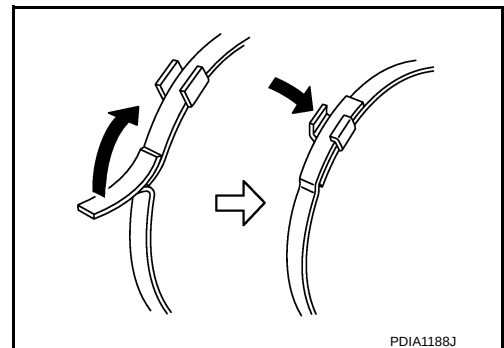
**CAUTION:**

**Never reuse boot bands.**

**A : Refer to FAX-55, "Drive Shaft".**



- c. Install boot bands securely as shown in the figure.



5. Install boot and boot bands to housing assembly.

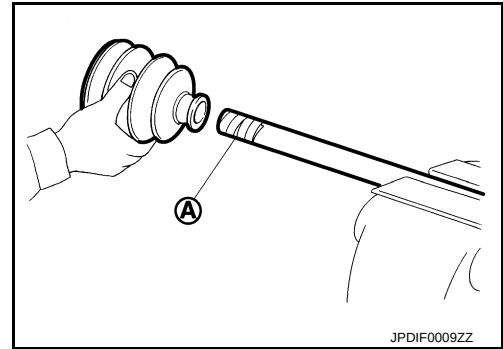
**CAUTION:**

# FRONT DRIVE SHAFT

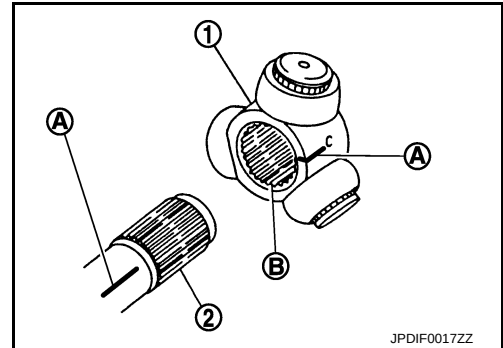
## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

- Wrap serration on housing assembly with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.

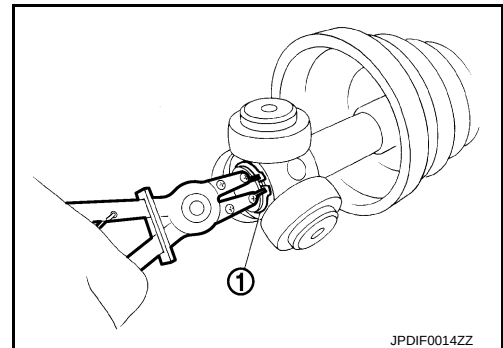


6. Remove the tape wrapped around the serration on shaft.
7. To install the spider assembly (1), align it with the matching marks (A) on the shaft (2) put during the removal, and direct the serration mounting surface (B) to the shaft.



8. Secure spider assembly onto shaft with snap ring (1).

**CAUTION:**  
Never reuse snap ring.

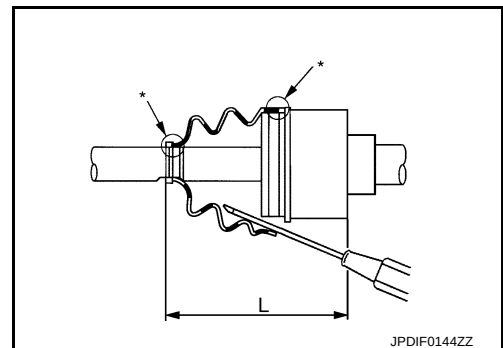


9. Apply the appropriate amount of grease to spider assembly and sliding surface.
10. Align matching marks put during the removal of housing assembly.
11. Install stopper ring.  
**CAUTION:**  
Never reuse stopper ring.
12. Apply NISSAN genuine grease (refer to parts catalog) to housing assembly.

**Grease amount** : Refer to [FAX-55, "Drive Shaft"](#).

13. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**  
If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or housing assembly, boot may be removed. Remove all grease from the boot mounting surface.



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## FRONT DRIVE SHAFT

### < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

14. To prevent the deformation of the boot, adjust the boot installation length to the value shown below (L) by inserting the suitable tool into the inside of boot from the large diameter side of boot and discharging inside air.

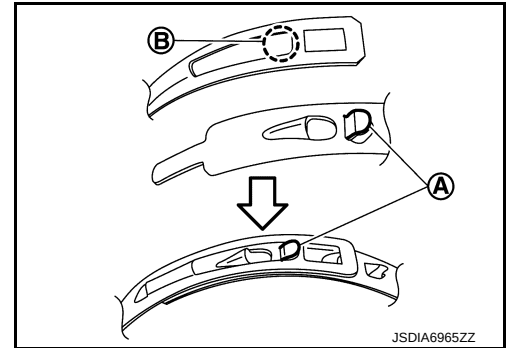
**L** : Refer to [FAX-55, "Drive Shaft"](#).

#### CAUTION:

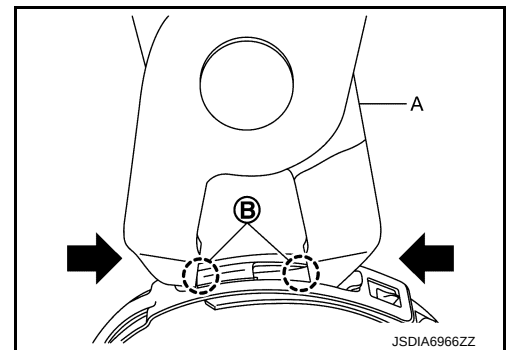
- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with the tip of tool.

15. Fix large diameter side and small diameter side of boot with boot band.

- a. Set boot band to the drive shaft boot groove and temporarily fix pawl (A) of boot band to (B) of boot band.

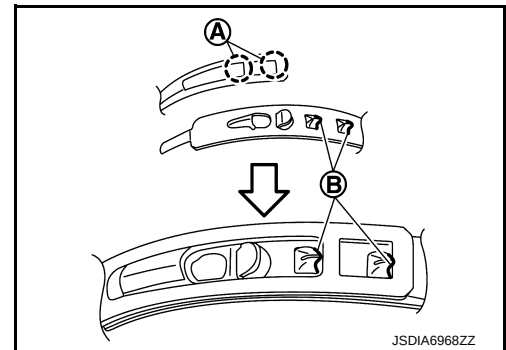


- b. Tighten boot band protrusions (B) with boot band crimping tool (A) [SST:KV40107310 ( — )] in the direction shown by arrows.



#### CAUTION:

Securely install boot band (A) to boot band pawl (B).



16. Check that displacement does not occur when boot is rotated with the housing assembly fixed.

#### CAUTION:

- If displacement occurs, reinstall band.
- Never reuse boot band.

#### Transaxle Side (Right Drive Shaft)

1. Clean the old grease on housing with paper waste.
2. Install dynamic damper, follow the procedure described below.
  - a. Install dynamic damper to shaft.

## FRONT DRIVE SHAFT

### < REMOVAL AND INSTALLATION >

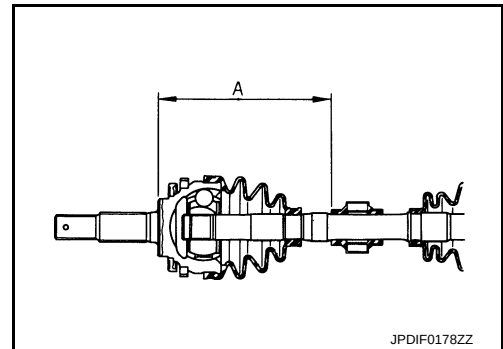
[FOR NISMO RS]

- b. Secure dynamic damper with bands in the following specified position (A) when installing.

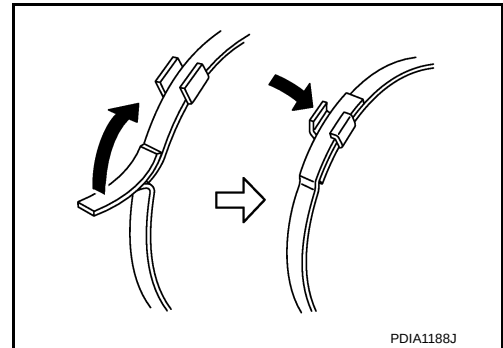
**CAUTION:**

**Never reuse bands.**

**A** : Refer to [FAX-55, "Drive Shaft"](#).



- c. Install boot bands securely as shown in the figure.



3. Install support bearing, follow the procedure described below.

- a. Install dust shield to housing.

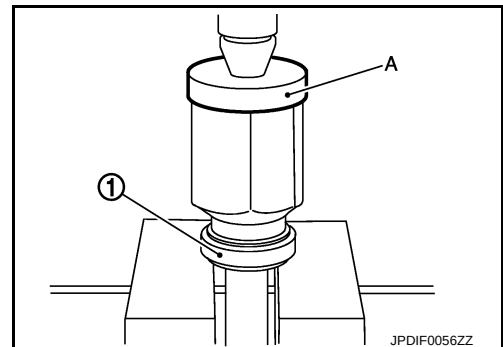
**CAUTION:**

**Never reuse dust shield.**

- b. Press support bearing (1) onto housing to using the suitable tool (A).

**CAUTION:**

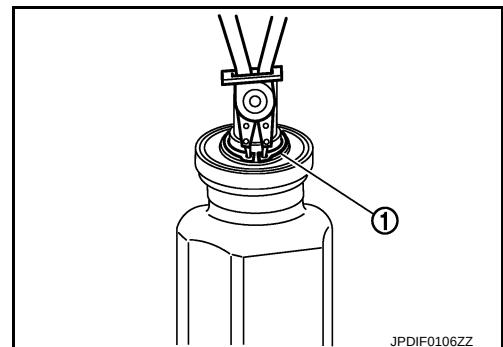
**Never reuse support bearing.**



- c. Install snap ring (1).

**CAUTION:**

**Never reuse snap ring.**



## FRONT DRIVE SHAFT

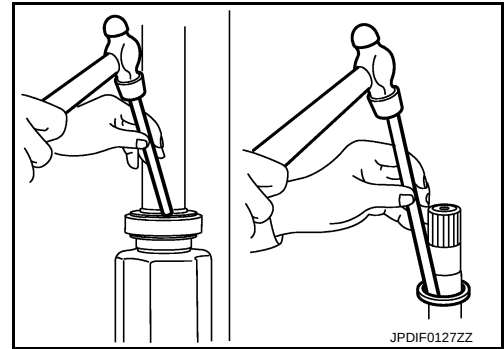
### < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

- d. Install dust shields.

**CAUTION:**

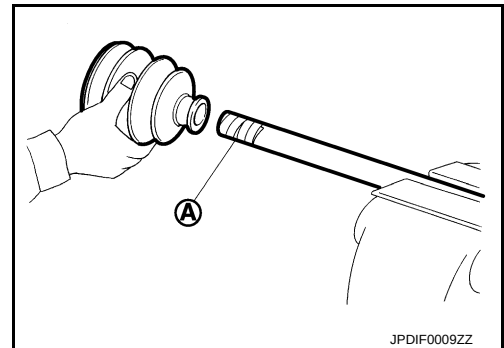
**Never reuse dust shields.**



4. Install boot and boot bands to housing assembly.

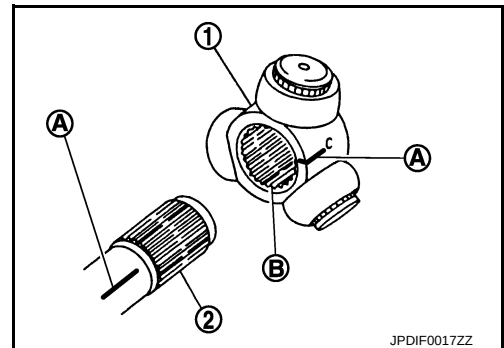
**CAUTION:**

- Wrap serration on housing assembly with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



5. Remove the tape wrapped around the serration on shaft.

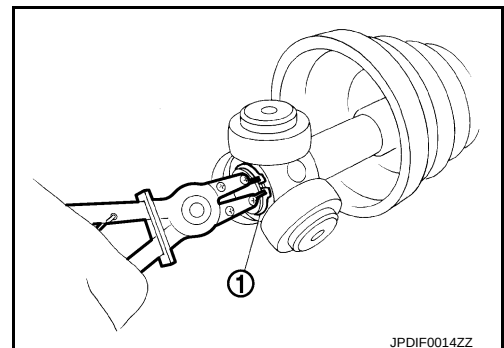
6. To install the spider assembly (1), align it with the matching marks (A) on the shaft (2) put during the removal, and direct the serration mounting surface (B) to the shaft.



7. Secure spider assembly onto shaft with snap ring (1).

**CAUTION:**

**Never reuse snap ring.**



8. Apply the appropriate amount of grease to spider assembly and sliding surface.

9. Align matching marks put during the removal of housing assembly.

10. Install stopper ring.

**CAUTION:**

**Never reuse stopper ring.**

11. Apply NISSAN genuine grease (refer to parts catalog) to housing assembly.



# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

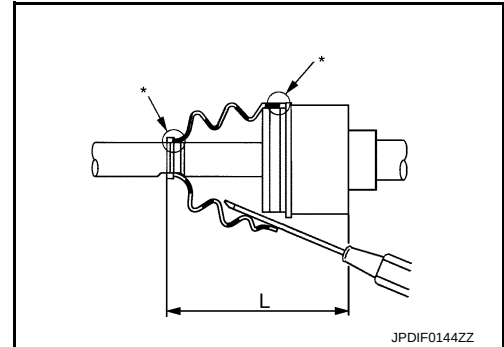
[FOR NISMO RS]

Grease amount : Refer to [FAX-55, "Drive Shaft"](#).

12. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or housing assembly, boot may be removed. Remove all grease from the boot mounting surface.



13. To prevent the deformation of the boot, adjust the boot installation length to the value shown below (L) by inserting the suitable tool into the inside of boot from the large diameter side of boot and discharging inside air.

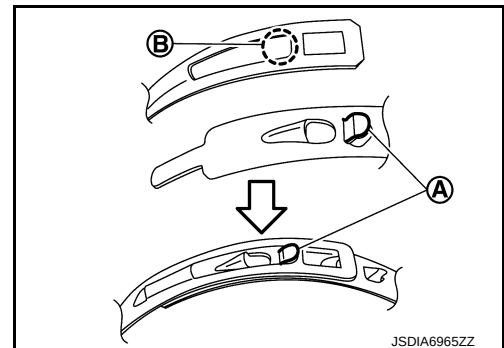
L : Refer to [FAX-55, "Drive Shaft"](#).

**CAUTION:**

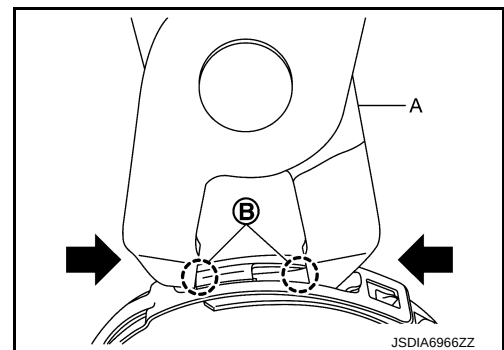
- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with the tip of tool.

14. Fix large diameter side and small diameter side of boot with boot band.

- a. Set boot band to the drive shaft boot groove and temporarily fix pawl (A) of boot band to (B) of boot band.



- b. Tighten boot band protrusions (B) with boot band crimping tool (A) [SST:KV40107310 ( — )] in the direction shown by arrows.



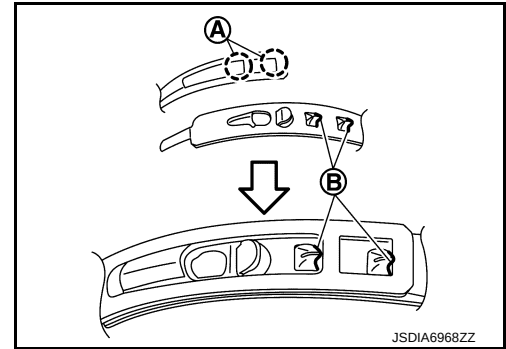
**CAUTION:**

# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

Securely install boot band (A) to boot band pawl (B).



15. Check that displacement does not occur when boot is rotated with the housing assembly fixed.

## CAUTION:

- If displacement occurs, reinstall band.
- Never reuse boot band.

2WD : Inspection

INFOID:0000000011671872

## INSPECTION AFTER INSTALLATION

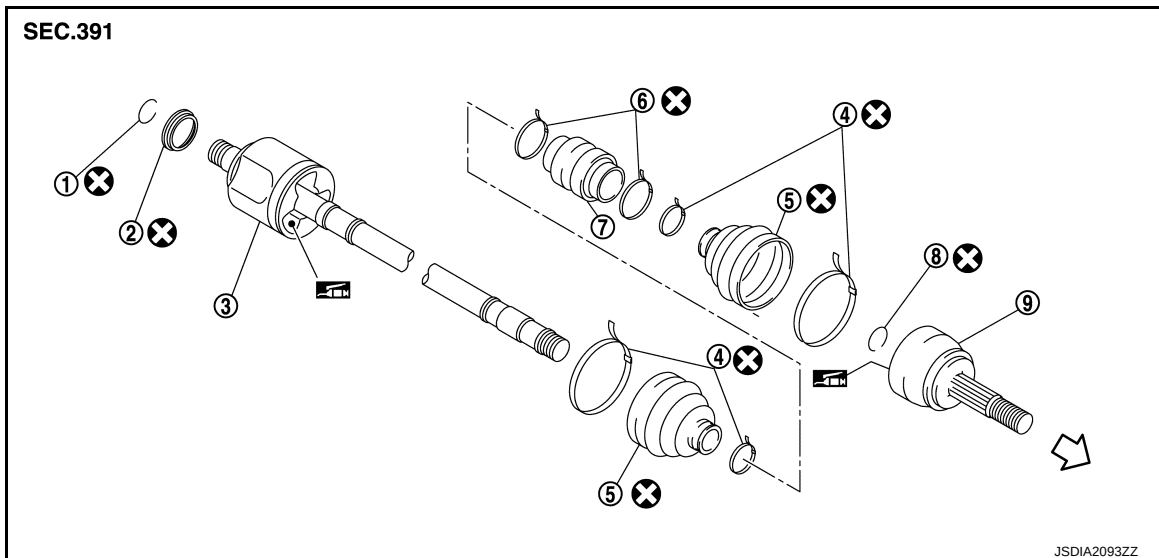
1. Check wheel sensor harness for proper connection. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
2. Check the wheel alignment. Refer to [FSU-7, "Inspection"](#).
3. Adjust neutral position of steering angle sensor. Refer to [BRC-62, "Work Procedure"](#).

AWD

AWD : Exploded View

INFOID:0000000011671870

LEFT SIDE



- |                   |                  |                       |
|-------------------|------------------|-----------------------|
| 1. Circular clip  | 2. Dust shield   | 3. Housing assembly   |
| 4. Boot band      | 5. Boot          | 6. Damper band        |
| 7. Dynamic damper | 8. Circular clip | 9. Joint sub-assembly |

⇐ : Wheel side

: Fill NISSAN Genuine grease or equivalent.

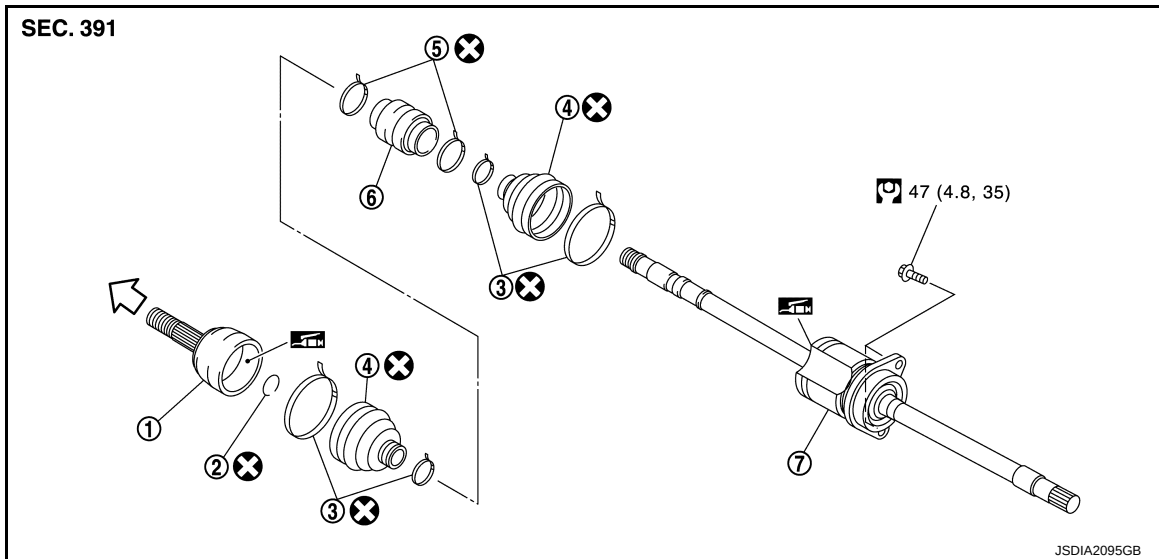
: Always replace after every disassembly.

RIGHT SIDE

# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]



- |                       |                  |                   |
|-----------------------|------------------|-------------------|
| 1. Joint sub-assembly | 2. Circular clip | 3. Boot band      |
| 4. Boot               | 5. Damper band   | 6. Dynamic damper |
| 7. Housing assembly   |                  |                   |

⇐ : Wheel side

: Fill NISSAN Genuine grease or equivalent.

: Always replace after every disassembly.

: N·m (kg-m, ft-lb)

## AWD : Removal and Installation

INFOID:0000000011671706

### REMOVAL

#### Left Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

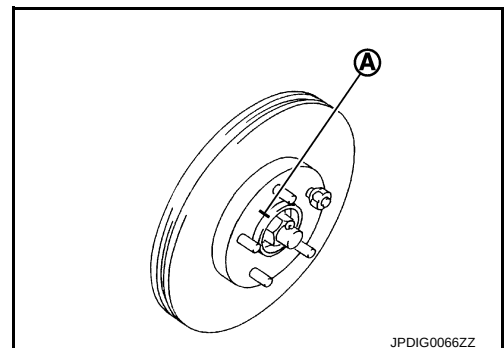
#### CAUTION:

**Never depress brake pedal while brake caliper is removed.**

5. Remove disc rotor.

#### CAUTION:

- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.

## FRONT DRIVE SHAFT

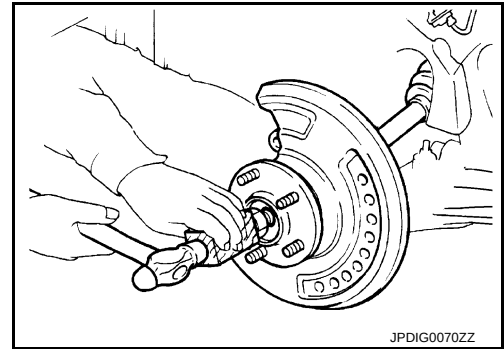
### < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

**NOTE:**

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
10. Remove drive shaft from wheel hub assembly.

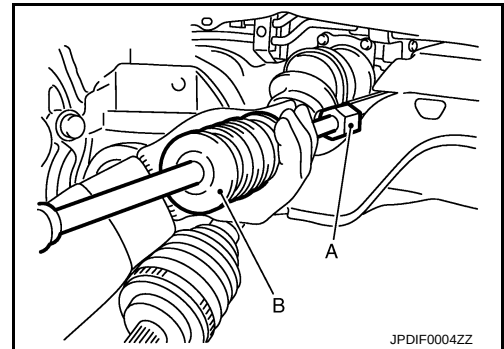
**CAUTION:**

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

11. Use the drive shaft attachment (A) [SST:KV40107500 ( — )] and a sliding hammer (B) (commercial service tool) while inserting tip of the drive shaft attachment between shaft and transaxle assembly, and then remove drive shaft from transaxle assembly.

**CAUTION:**

- Never place drive shaft joint at an extreme angle when removing drive shaft. Also be careful not to overextend slide joint.
- Confirm that the circular clip is attached to the drive shaft.



### Right Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

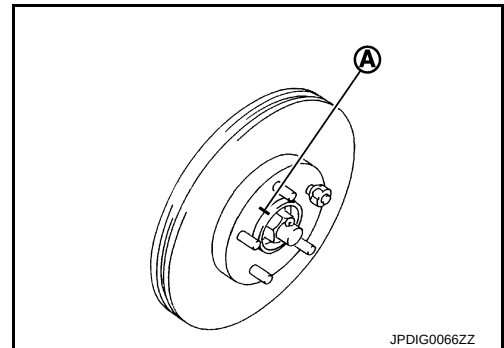
**CAUTION:**

Never depress brake pedal while brake caliper is removed.

5. Remove disc rotor.

**CAUTION:**

- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.

# FRONT DRIVE SHAFT

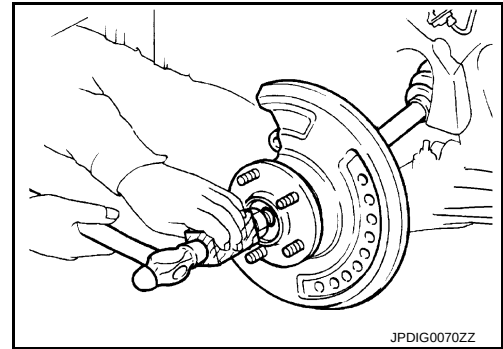
## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

**NOTE:**

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.  
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).  
10. Remove drive shaft from wheel hub assembly.

**CAUTION:**

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

11. Remove bearing housing bolts.  
12. Remove drive shaft assembly from transfer assembly.

**CAUTION:**

Never place drive shaft joint at an extreme angle when removing drive shaft. Also be careful not to overextend slide joint.

## INSTALLATION

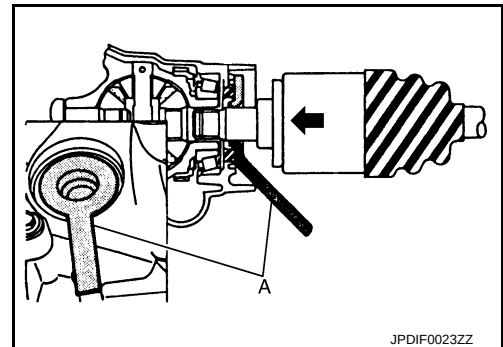
Note the following, and install in the reverse order of removal.

### Left Side

- Always replace differential side oil seal with new one when installing drive shaft. Refer to [TM-337, "Removal and Installation"](#).
- Place the protector (A) [SST:KV38107900 ( — )] onto tranaxle assembly to prevent damage to the oil seal while inserting drive shaft. Slide drive shaft sliding joint and tap with a hammer to install securely.

**CAUTION:**

- Check that circular clip is completely engaged.
- Never reuse circular clip.
- Never reuse differential side oil seal.



- Clean the matching surface of wheel hub lock nut and wheel hub assembly.

**CAUTION:**

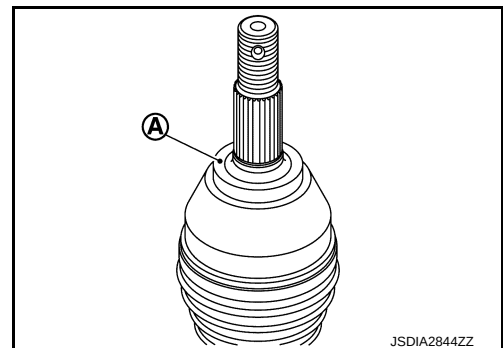
Never apply lubricating oil to these matching surface.

- Clean the matching surface of drive shaft and wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

**CAUTION:**

Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.

Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)



- Use the following torque range for tightening the wheel hub lock nut.

## FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

 : 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)

### CAUTION:

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

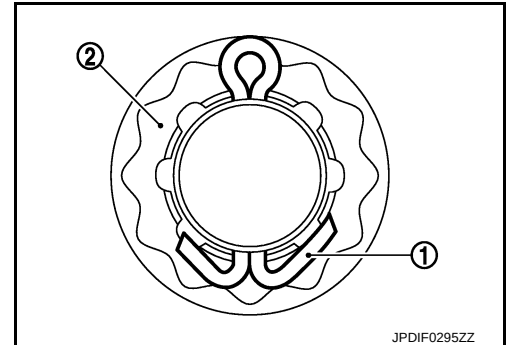
### NOTE:

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

- Align the matching marks that have been made during removal when reusing the disc rotor.
- When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

### CAUTION:

Never reuse cotter pin.



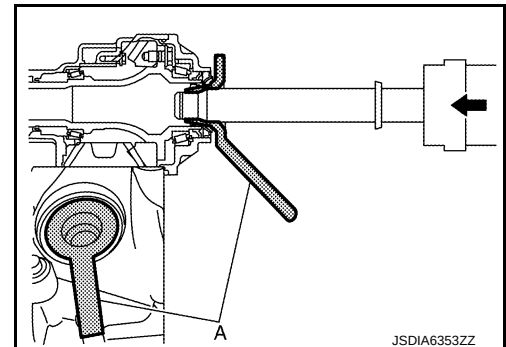
- Perform the final tightening of each of parts under unladen conditions, which were removed when removing wheel hub assembly and steering knuckle.
- Perform inspection after installation. Refer to [FAX-54, "AWD : Inspection"](#).

### Right Side

- Always replace transfer cover oil seal (inner) and transfer cover oil seal (outer) with new one when installing drive shaft. Refer to [DLN-94, "Removal and Installation"](#).
- Place the protector (A) [SST:KV38107900 ( — )] onto transfer assembly to prevent damage to the transfer cover oil seal (inner) and transfer cover oil seal (outer) while inserting drive shaft. Slide drive shaft sliding joint and tap with a hammer to install securely.

### CAUTION:

Never reuse transfer cover oil seal (inner) and transfer cover oil seal (outer).



- Tighten the bearing housing bolt to the specified torque. Refer to [FAX-42, "AWD : Exploded View"](#).
- Clean the matching surface of wheel hub lock nut and wheel hub assembly.

### CAUTION:

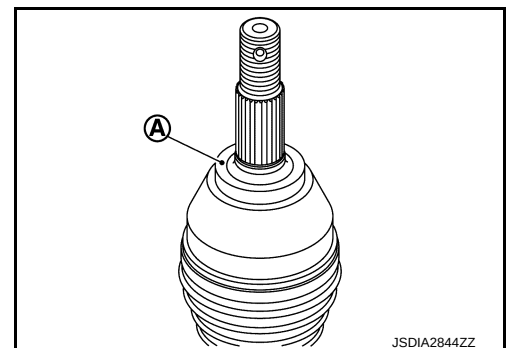
Never apply lubricating oil to these matching surface.

- Clean the matching surface of drive shaft and wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

### CAUTION:

Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.

Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)



- Use the following torque range for tightening the wheel hub lock nut.

# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

 : 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)

## CAUTION:

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

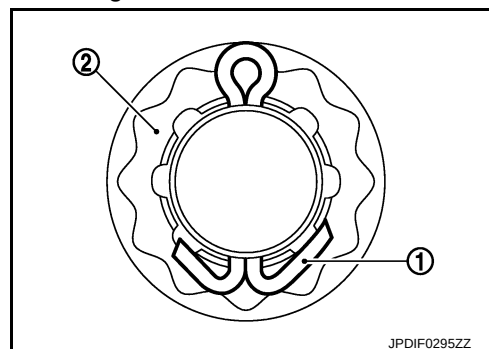
## NOTE:

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

- Align the matching marks that have been made during removal when reusing the disc rotor.
- When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

## CAUTION:

Never reuse cotter pin.



- Perform the final tightening of each of parts under unladen conditions, which were removed when removing wheel hub assembly and steering knuckle.
- Perform inspection after installation. Refer to [FAX-54, "AWD : Inspection"](#).

## AWD : Disassembly and Assembly

INFOID:0000000011671707

### DISASSEMBLY

#### Wheel Side

1. Fix shaft with a vise.

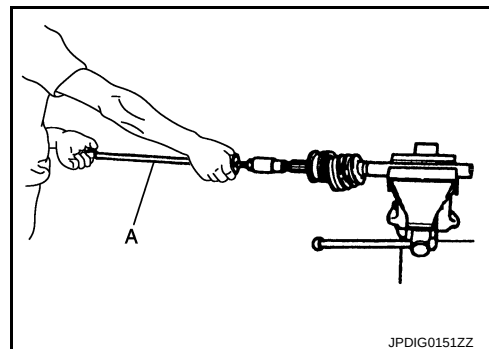
## CAUTION:

Protect shaft using aluminum or copper plates when fixing with a vise.

2. Remove boot bands, and then remove boot from joint sub-assembly.
3. Screw drive shaft puller (A) (commercial service tool) into joint sub-assembly screw part to a length of 30 mm (1.18 in) or more. Support drive shaft with one hand and pull out joint sub-assembly from shaft.

## CAUTION:

- Align drive shaft puller and drive shaft and remove them by pulling firmly and uniformly.
- If joint sub-assembly cannot be removed after five or more unsuccessful attempts, replace shaft and joint sub assembly as a set.



4. Remove circular clip from shaft.
5. Remove boot from shaft.

#### Transaxle Side (Left Drive Shaft)

1. Fix shaft with a vise.

## CAUTION:

Protect shaft using aluminum or copper plates when fixing with a vise.

2. Remove wheel side boot from joint sub-assembly. Refer to [FAX-20, "AWD : Removal and Installation"](#).
3. Remove dynamic damper as per the following instructions:
  - a. Remove damper band.



## FRONT DRIVE SHAFT

[FOR NISMO RS]

### < REMOVAL AND INSTALLATION >

- b. Remove dynamic damper from housing assembly.
4. Remove boot bands, then remove boot from housing assembly.
5. Remove circular clip from housing assembly.
6. Remove dust shield from housing assembly.

#### Transaxle Side (Right Drive Shaft)

1. Fix shaft with a vise.

#### **CAUTION:**

**Protect shaft using aluminum or copper plates when fixing with a vise.**

2. Remove wheel side boot from joint sub-assembly. Refer to [FAX-20, "AWD : Removal and Installation"](#).
3. Remove dynamic damper as per the following instructions:
  - a. Remove damper band.
  - b. Remove dynamic damper from housing assembly.
4. Remove boot bands, then remove boot from housing assembly.

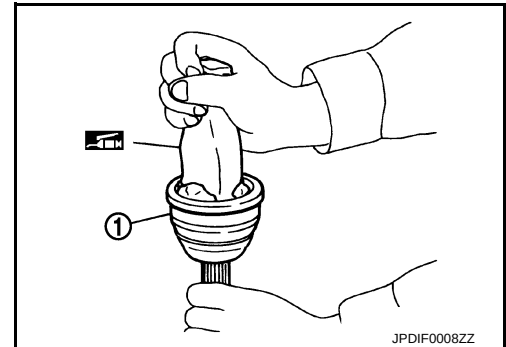
### ASSEMBLY

#### Wheel Side

1. Clean the old grease on joint sub-assembly with paper waste.
2. Fill serration slot joint sub-assembly (1) with NISSAN genuine grease or equivalent until the serration slot and ball groove become full to the brim.

#### **CAUTION:**

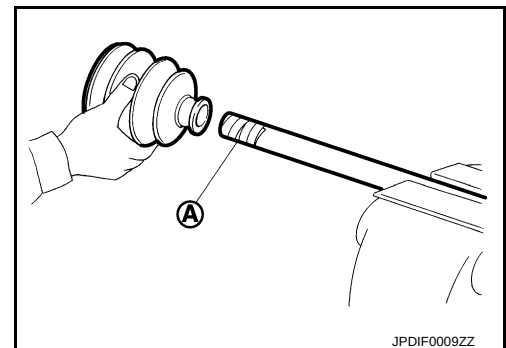
**After applying grease, use a paper waste to wipe off old grease that has oozed out.**



3. Install boot and boot bands to shaft.

#### **CAUTION:**

- Wrap serration on shaft with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



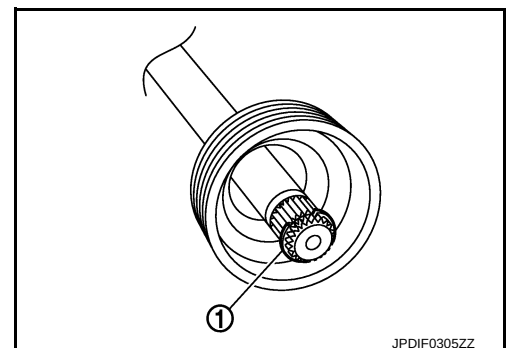
4. Remove the tape wrapped around the serration on shaft.
5. Position the circular clip (1) on groove at the shaft edge.

#### **CAUTION:**

**Never reuse circular clip.**

#### **NOTE:**

Drive joint inserter is recommended when installing circular clip.





## FRONT DRIVE SHAFT

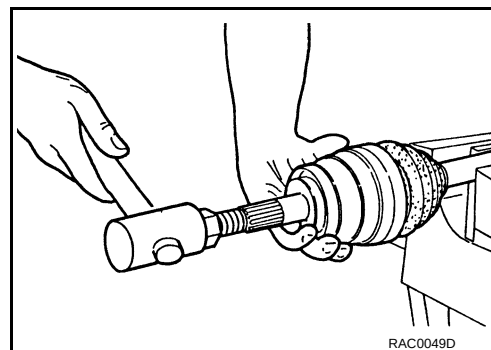
### < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

6. Align both center axes of the shaft edge and joint sub-assembly. Then assemble shaft with joint sub-assembly holding circular clip.
7. Install joint sub-assembly to shaft using plastic hammer.

**CAUTION:**

- Check circular clip is properly positioned on groove of the joint sub-assembly.
- Confirm that joint sub-assembly is correctly engaged while rotating drive shaft.



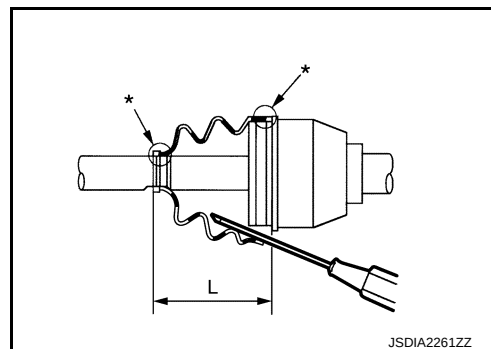
8. Apply the specified amount of grease into the boot inside from large diameter side of boot.

**Grease amount** : Refer to [FAX-55, "Drive Shaft"](#).

9. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or joint sub-assembly, boot may be removed. Remove all grease from the boot mounting surface.



10. To prevent the deformation of the boot, adjust the boot installation length (L) to the specified value shown below by inserting the suitable tool into inside of the boot from the large diameter side of the boot and discharging the inside air.

**L** : Refer to [FAX-55, "Drive Shaft"](#).

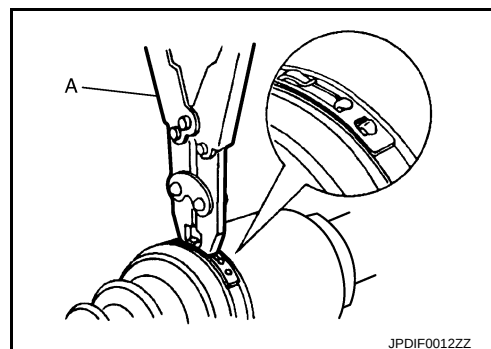
**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with a tip of tool.

11. Secure the large and small ends of the boot with boot bands using the boot band crimping tool (A) [SST:KV40107300 ( — )].

**CAUTION:**

- Never reuse boot band.



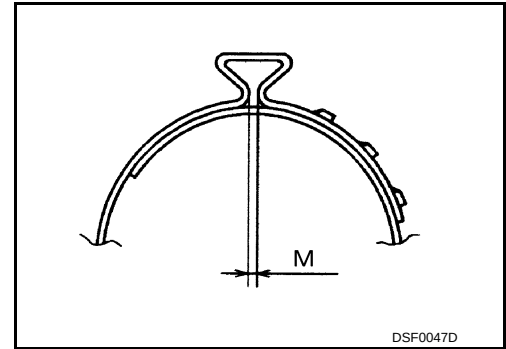
## FRONT DRIVE SHAFT

### < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

- Secure boot band so that dimension (M) meets the specification as shown in the figure.

**Dimension (M) : 2.0 – 3.0 mm (0.079 – 0.118 in)**



12. Check that displacement does not occur when boot is rotated with the joint sub-assembly and shaft fixed.

**CAUTION:**

- Reinstall them using boot bands when boot installation positions become incorrect.
- Never reuse boot band.

#### Transaxle Side (Left Drive Shaft)

1. Clean the old grease on housing assembly with paper waste.
2. Install dust shield to housing assembly.

**CAUTION:**

**Never reuse dust shield.**

3. Install circular clip to housing.

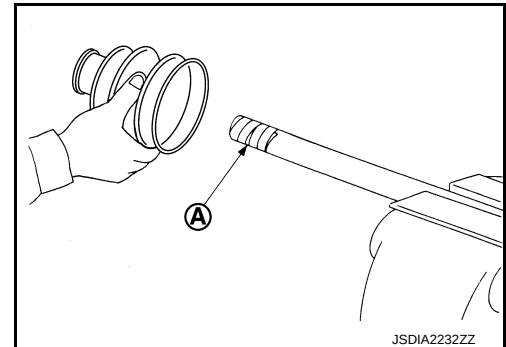
**CAUTION:**

**Never reuse circular clip.**

4. Install boot and boot bands to housing assembly.

**CAUTION:**

- Wrap serration on housing assembly with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



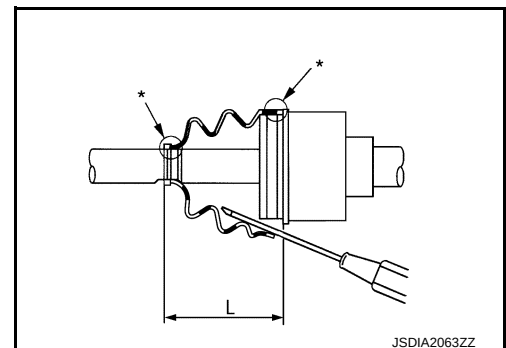
5. Remove the tape wrapped around the serration on shaft.
6. Apply NISSAN genuine grease (refer to parts catalog) to housing assembly.

**Grease amount : Refer to FAX-55, "Drive Shaft".**

7. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

**If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or housing assembly, boot may be removed. Remove all grease from the boot mounting surface.**



8. To prevent the deformation of the boot, adjust the boot installation length to the value shown below (L) by inserting the suitable tool into the inside of boot from the large diameter side of boot and discharging inside air.

# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[FOR NISMO RS]

**L** : Refer to [FAX-55, "Drive Shaft"](#).

**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with the tip of tool.

9. Install boot bands securely.

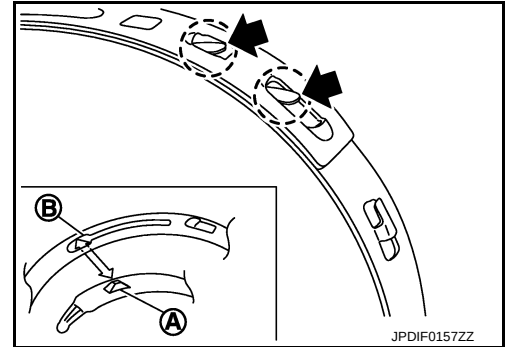
**CAUTION:**

**Never reuse boot bands.**

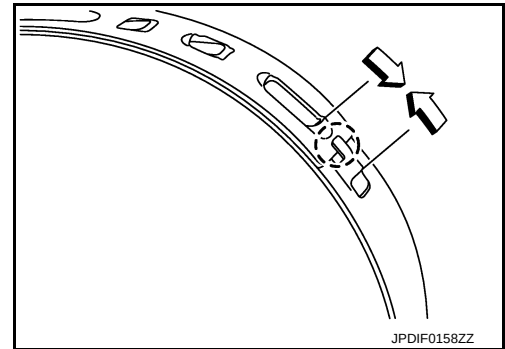
- a. Put boot band in the groove on drive shaft boot. Then fit pawls (➡) into holes to temporary installation.

**NOTE:**

For the large diameter side, fit projection (A) and guide slit (B) at first.



- b. Pinch projection on the band with suitable pliers to tighten band.  
c. Insert the tip of band into the lower part of pawl (marked with dotted circle) as shown in the figure.



10. Check that displacement does not occur when boot is rotated with the housing assembly fixed.

**CAUTION:**

- If displacement occurs, reinstall band.
- Never reuse boot band.

11. Install dynamic damper, follow the procedure described below.

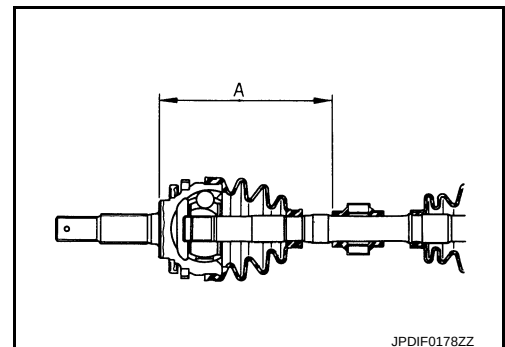
- a. Install dynamic damper to shaft.

- b. Secure dynamic damper with bands in the following specified position (A) when installing.

**CAUTION:**

**Never reuse boot bands.**

**A** : Refer to [FAX-55, "Drive Shaft"](#).

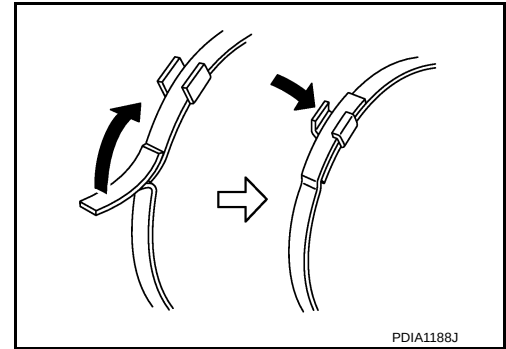


## FRONT DRIVE SHAFT

### < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

- c. Install boot bands securely as shown in the figure.



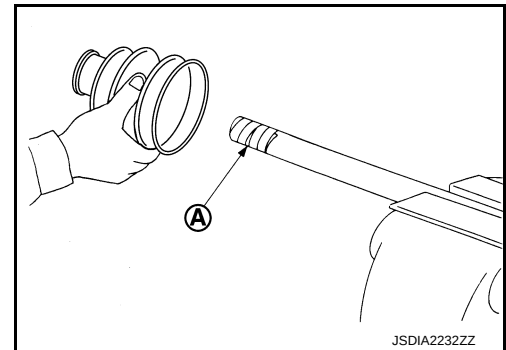
12. Install boot to the wheel side. Refer to [FAX-20. "AWD : Removal and Installation"](#).

#### Transaxle Side (Right Drive Shaft)

1. Clean the old grease on housing assembly with paper waste.
2. Install boot and boot bands to housing assembly.

**CAUTION:**

- Wrap serration on housing assembly with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



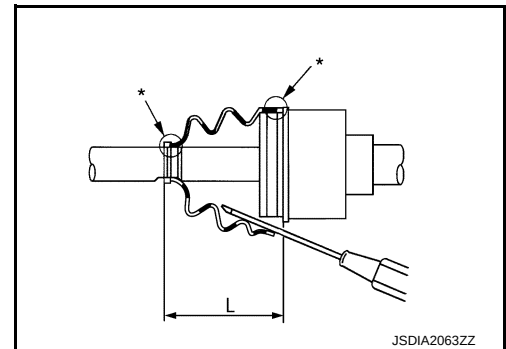
3. Remove the tape wrapped around the serration on shaft.
4. Apply NISSAN genuine grease (refer to parts catalog) to housing assembly.

**Grease amount** : Refer to [FAX-55. "Drive Shaft"](#).

5. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or housing assembly, boot may be removed. Remove all grease from the boot mounting surface.



6. To prevent the deformation of the boot, adjust the boot installation length to the value shown below (L) by inserting the suitable tool into the inside of boot from the large diameter side of boot and discharging inside air.

**L** : Refer to [FAX-55. "Drive Shaft"](#).

**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with the tip of tool.

7. Install boot bands securely.

**CAUTION:**

Never reuse boot bands.

# FRONT DRIVE SHAFT

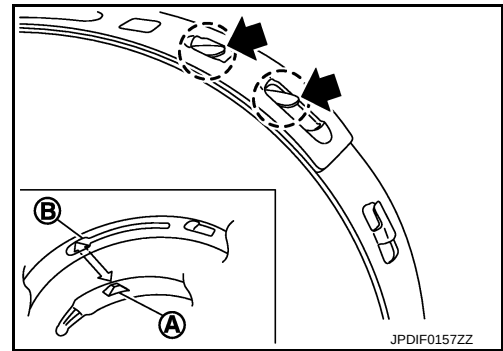
## < REMOVAL AND INSTALLATION >

[FOR NISMO RS]

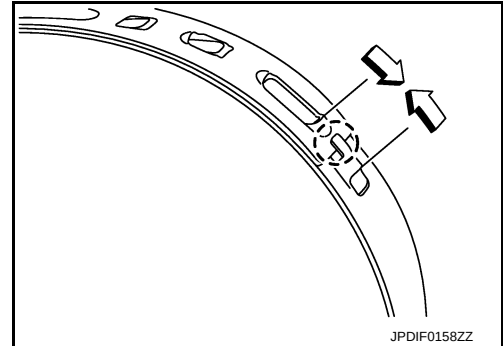
- a. Put boot band in the groove on drive shaft boot. Then fit pawls (➡) into holes to temporary installation.

**NOTE:**

For the large diameter side, fit projection (A) and guide slit (B) at first.



- b. Pinch projection on the band with suitable pliers to tighten band.
- c. Insert the tip of band into the lower part of pawl (marked with dotted circle) as shown in the figure.



8. Check that displacement does not occur when boot is rotated with the housing assembly fixed.

**CAUTION:**

- If displacement occurs, reinstall band.
- Never reuse boot band.

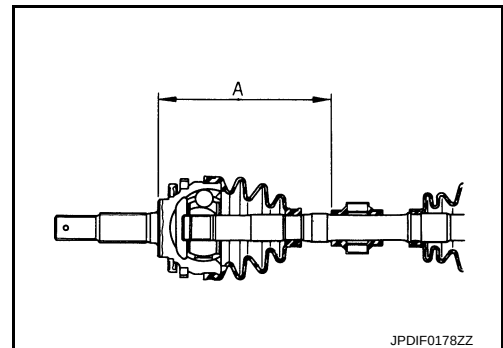
9. Install dynamic damper, follow the procedure described below.

- a. Install dynamic damper to shaft.
- b. Secure dynamic damper with bands in the following specified position (A) when installing.

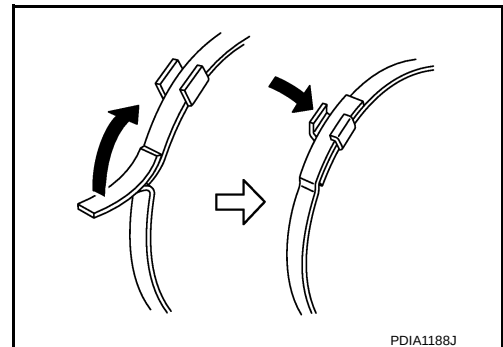
**CAUTION:**

**Never reuse bands.**

**A** : Refer to [FAX-55, "Drive Shaft"](#).



- c. Install boot bands securely as shown in the figure.



10. Install boot to the wheel side. Refer to [FAX-20, "AWD : Removal and Installation"](#).

## AWD : Inspection

INFOID:0000000011671873

### INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
2. Check the wheel alignment. Refer to [FSU-7, "Inspection"](#).
3. Adjust neutral position of steering angle sensor. Refer to [BRC-62, "Work Procedure"](#).

## SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FOR NISMO RS]

# SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### Wheel Bearing

INFOID:0000000011670693

| Item           | Standard                   |
|----------------|----------------------------|
| Axial end play | 0.05 mm (0.002 in) or less |

### Drive Shaft

INFOID:0000000011670694

#### 2WD

| Item                         |                | Standard                       |                                |
|------------------------------|----------------|--------------------------------|--------------------------------|
|                              |                | Left side                      | Right side                     |
| Grease quantity              | Wheel side     | 115 – 135 g (4.06 – 4.76 oz)   |                                |
|                              | Transaxle side | 215 – 235 g (7.59 – 8.28 oz)   |                                |
| Boots installed length*      | Wheel side     | 133.5 mm (5.26 in)             |                                |
|                              | Transaxle side | 161.1 mm (6.34 in)             |                                |
| Dimension of dynamic damper* |                | 249 – 255 mm (9.80 – 10.04 in) | 252 – 258 mm (9.92 – 10.16 in) |

\*: For measuring position, refer to [FAX-31, "2WD : Disassembly and Assembly"](#).

#### AWD

| Item                         |                | Standard                        |            |
|------------------------------|----------------|---------------------------------|------------|
|                              |                | Left side                       | Right side |
| Grease quantity              | Wheel side     | 88 – 108 g (3.10 – 3.80 oz)     |            |
|                              | Transaxle side | 114 – 124 g (4.02 – 4.37 oz)    |            |
| Boots installed length*      | Wheel side     | 94.8 mm (3.73 in)               |            |
|                              | Transaxle side | 93.2 mm (3.67 in)               |            |
| Dimension of dynamic damper* |                | 267 – 273 mm (10.51 – 10.75 in) |            |

\*: For measuring position, refer to [FAX-47, "AWD : Disassembly and Assembly"](#).

## PRECAUTION

### PRECAUTIONS

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

INFOID:0000000011675973

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. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

**Always observe the following items for preventing accidental activation.**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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:**

**Always observe the following items for preventing accidental activation.**

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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 3 minutes before performing any service.

#### Precautions for Drive Shaft

INFOID:0000000011675974

- Observe the following precautions when disassembling and assembling drive shaft.
  - Never disassemble joint sub-assembly because it is non-overhaul parts.
  - Perform work in a location which is as dust-free as possible.
  - Clean the parts, before disassembling and assembling.
  - Prevent the entry of foreign objects during disassembly of the service location.
  - Reassemble disassembled parts carefully in the correct order. If work is interrupted, a clean cover must be placed over parts.
  - Use paper waste. Fabric shop cloths must not be used because of the danger of lint adhering to parts.
  - Clean disassembled parts (except for rubber parts) with kerosene which shall be removed by blowing with air or wiping with paper waste.



# PRECAUTIONS

< PRECAUTION >

[EXCEPT FOR NISMO RS]

## Precautions for Removing Battery Terminal

INFOID:0000000011675975

- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

**NOTE:**

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

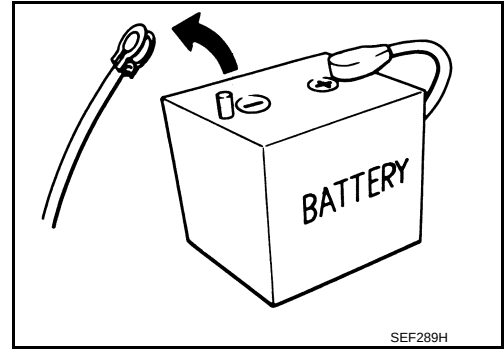
**NOTE:**

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

**NOTE:**

The removal of 12V battery may cause a DTC detection error.



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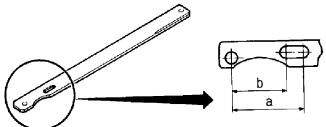
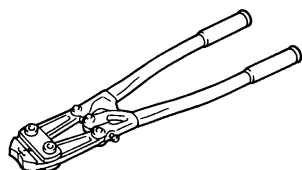
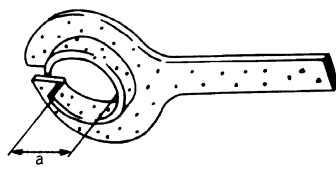
## PREPARATION

### PREPARATION

#### Special Service Tool

INFOID:0000000011675979

The actual shapes of TechMate tools may differ from those of special service tools illustrated here.

| Tool number<br>(TechMate No.)<br>Tool name                                                       | Description                                 |
|--------------------------------------------------------------------------------------------------|---------------------------------------------|
| KV40104000<br>( — )<br>Hub lock nut wrench<br>a: 85 mm (3.35 in)<br>b: 65 mm (2.56 in)           | Removing and Installing wheel hub lock nut. |
| <br>ZZA0802D    |                                             |
| KV40107300<br>( — )<br>Boot band crimping tool                                                   | Installing boot band                        |
| <br>ZZA1229D    |                                             |
| KV40107500<br>( — )<br>Drive shaft attachment                                                    | Removing drive shaft                        |
| <br>ZZA1230D  |                                             |
| KV38107900<br>( — )<br>Protector<br>a: 32 mm (1.26 in) dia.                                      | Installing drive shaft                      |
| <br>PDIA1183J |                                             |

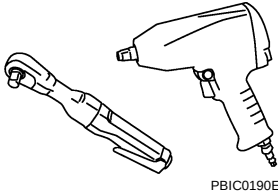
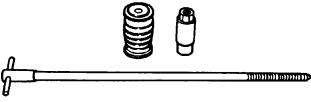
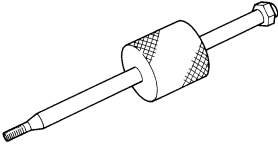
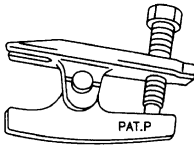
# PREPARATION

< PREPARATION >

[EXCEPT FOR NISMO RS]

## Commercial Service Tools

INFOID:0000000011675980

| Tool name                                                                                                                       | Description                             |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Power tool<br><br><br>PBIC0190E                | Loosening bolts and nuts                |
| Drive shaft puller<br><br><br>JPDIG0152ZZ      | Removing drive shaft joint sub assembly |
| Sliding hammer<br><br><br>ZZA0023D             | Removing drive shaft                    |
| Ball joint remover<br><br><br>PAT.P<br>NT146 | Removing hub bolt                       |

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# NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

[EXCEPT FOR NISMO RS]

## SYMPTOM DIAGNOSIS

### NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

#### NVH Troubleshooting Chart

INFOID:0000000011675981

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

| Reference                          |             |                               | —                     | FAX-93 (2WD), FAX-105 (AWD) | —         | FAX-63                           | —                  | FAX-65               | NVH in FAX and FSU sections     | Refer to FRONT AXLE in this chart | NVH in WT section | NVH in WT section | Refer to DRIVE SHAFT in this chart | NVH in BR section | NVH in ST section |
|------------------------------------|-------------|-------------------------------|-----------------------|-----------------------------|-----------|----------------------------------|--------------------|----------------------|---------------------------------|-----------------------------------|-------------------|-------------------|------------------------------------|-------------------|-------------------|
| Possible cause and SUSPECTED PARTS |             |                               | Excessive joint angle | Joint sliding resistance    | Imbalance | Improper installation, looseness | Parts interference | Wheel bearing damage | FRONT AXLE AND FRONT SUSPENSION | FRONT AXLE                        | TIRE              | ROAD WHEEL        | DRIVE SHAFT                        | BRAKE             | STEERING          |
| Symptom                            | DRIVE SHAFT | Noise                         | ×                     | ×                           |           |                                  |                    | ×                    | ×                               | ×                                 | ×                 | ×                 |                                    | ×                 | ×                 |
|                                    |             | Shake                         | ×                     |                             | ×         |                                  |                    | ×                    | ×                               | ×                                 | ×                 | ×                 |                                    | ×                 | ×                 |
|                                    | FRONT AXLE  | Noise                         |                       |                             |           | ×                                | ×                  | ×                    | ×                               |                                   | ×                 | ×                 | ×                                  | ×                 | ×                 |
|                                    |             | Shake                         |                       |                             |           | ×                                | ×                  | ×                    | ×                               |                                   | ×                 | ×                 | ×                                  | ×                 | ×                 |
|                                    |             | Vibration                     |                       |                             |           | ×                                | ×                  | ×                    | ×                               |                                   | ×                 |                   | ×                                  |                   | ×                 |
|                                    |             | Shimmy                        |                       |                             |           | ×                                | ×                  |                      | ×                               |                                   | ×                 | ×                 |                                    | ×                 | ×                 |
|                                    |             | Judder                        |                       |                             |           | ×                                |                    |                      | ×                               |                                   | ×                 | ×                 |                                    | ×                 | ×                 |
|                                    |             | Poor quality ride or handling |                       |                             |           | ×                                | ×                  |                      | ×                               |                                   | ×                 | ×                 |                                    |                   |                   |
|                                    |             |                               |                       |                             |           |                                  |                    |                      |                                 |                                   |                   |                   |                                    |                   |                   |
|                                    |             |                               |                       |                             |           |                                  |                    |                      |                                 |                                   |                   |                   |                                    |                   |                   |

×: Applicable

# FRONT WHEEL HUB AND KNUCKLE

< PERIODIC MAINTENANCE >

[EXCEPT FOR NISMO RS]

## PERIODIC MAINTENANCE

### FRONT WHEEL HUB AND KNUCKLE

#### Inspection

INFOID:0000000011675982

#### COMPONENT PART

Check that the mounting conditions (looseness, backlash) of each component and component conditions (wear, damage) are normal.

#### WHEEL HUB ASSEMBLY (BEARING-INTEGRATED TYPE)

Check the following items, and replace the part if necessary.

- Move wheel hub assembly in the axial direction by hand. Check there is no looseness of wheel bearing.

**Axial end play** : Refer to [FAX-106, "Wheel Bearing"](#).

- Rotate wheel hub assembly and check there is no unusual noise or other irregular conditions. If there is any of irregular conditions, replace wheel hub assembly.

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## FRONT DRIVE SHAFT

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### Inspection

INFOID:0000000011675983

Check the following items, and replace the part if necessary.

- Check drive shaft mounting point and joint for looseness and other damage.

**CAUTION:**

**Replace entire drive shaft assembly when noise or vibration occurs from drive shaft.**

- Check boot for cracks and other damage.

# FRONT WHEEL HUB AND KNUCKLE

< REMOVAL AND INSTALLATION >

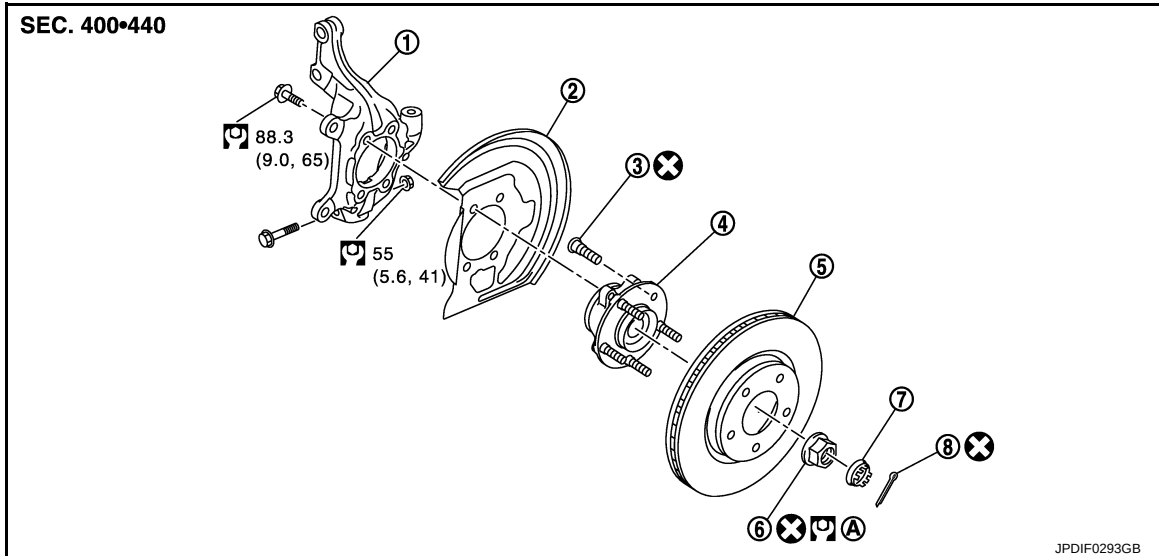
[EXCEPT FOR NISMO RS]

## REMOVAL AND INSTALLATION

### FRONT WHEEL HUB AND KNUCKLE

Exploded View

INFOID:0000000011675984



1. Steering knuckle
  2. Splash guard
  3. Hub bolt
  4. Wheel hub assembly (Bearing-integrated type)
  5. Disc rotor
  6. Wheel hub lock nut
  7. Adjusting cap
  8. Cotter pin
- A. Tightening must be done following the installation procedure. Refer to [FAX-63, "Removal and Installation"](#).

⊗: Always replace after every disassembly.

Ⓜ: N·m (kg·m, ft·lb)

### Removal and Installation

INFOID:0000000011675985

#### REMOVAL

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

#### CAUTION:

**Never depress brake pedal while brake caliper is removed.**

5. Remove disc rotor.

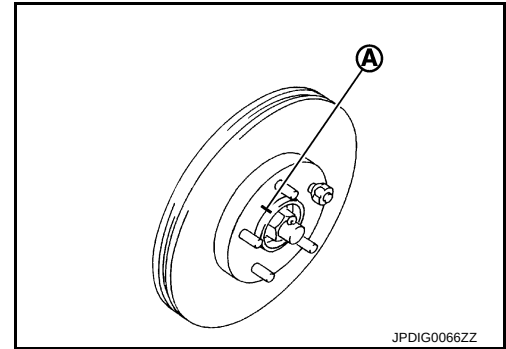
#### CAUTION:

# FRONT WHEEL HUB AND KNUCKLE

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

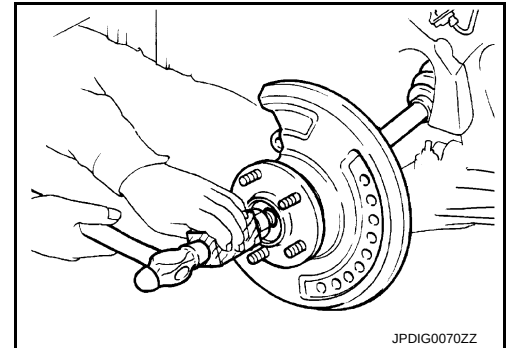
- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.
7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

**NOTE:**

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
9. Remove steering outer socket from steering knuckle. Refer to [ST-17, "Removal and Installation"](#).
10. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
11. Suspend the drive shaft with suitable wire.

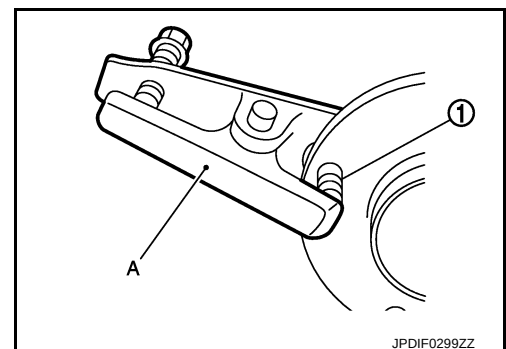
**CAUTION:**

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

12. Remove steering knuckle from transverse link.
13. Remove wheel hub assembly and splash guard from steering knuckle.
14. Remove hub bolts (1) from wheel hub assembly, using the ball joint remover (A) (commercial service tool).

**CAUTION:**

- Remove hub bolt only when necessary.
- Never hammer the hub bolt to avoid impact to the wheel hub assembly.
- Pull out the hub bolt in a direction perpendicular to the wheel hub assembly.



15. Perform inspection after removal. Refer to [FAX-65, "Inspection"](#).

## INSTALLATION

Note the following, and install in the reverse order of the removal.



# FRONT WHEEL HUB AND KNUCKLE

## < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

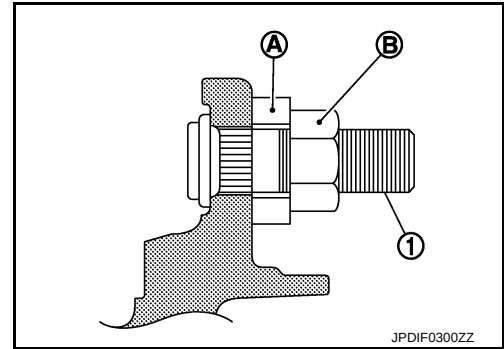
- Place a washer (A) as shown in the figure to install the hub bolts (1) by using the tightening force of the nut (B).

### CAUTION:

- Check that there is no clearance between wheel hub assembly, and hub bolt.
- Never reuse hub bolt.
- Never reuse steering knuckle and transverse link fixing nut.
- Clean the matching surface of wheel hub lock nut and wheel hub assembly.

### CAUTION:

Never apply lubricating oil to these matching surface.

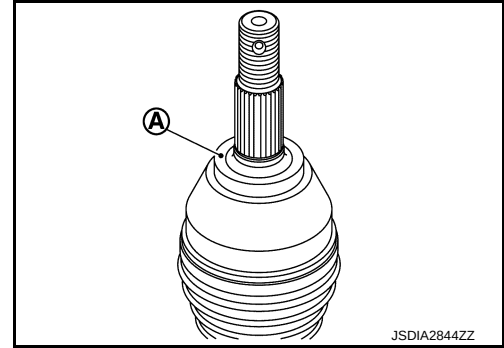


- Clean the matching surface of drive shaft, wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

### CAUTION:

Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.

Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)



- Use the following torque range for tightening the wheel hub lock nut.

 : 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)

### CAUTION:

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

### NOTE:

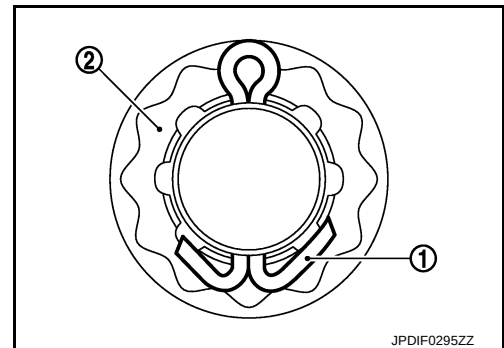
Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

- Align the matching marks that have been made during removal when reusing the disc rotor.
- When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

### CAUTION:

Never reuse cotter pin.

- Perform the final tightening of each of parts under unladen conditions, which were removed when removing wheel hub assembly and steering knuckle.
- Perform inspection after installation. Refer to [FAX-65, "Inspection"](#).



INFOID:0000000011675986

## Inspection

### INSPECTION AFTER REMOVAL

Check the following items, and replace the part if necessary.

- Check components for deformation, cracks, and other damage.
- Check boots of transverse link and steering outer socket ball joint for breakage, axial end play, and swing torque. Refer to [FSU-13, "Inspection"](#) and [ST-19, "Inspection"](#).

### INSPECTION AFTER INSTALLATION

## FRONT WHEEL HUB AND KNUCKLE

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

1. Check wheel sensor harness for proper connection. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
2. Check the wheel alignment. Refer to [FSU-7, "Inspection"](#).
3. Adjust neutral position of steering angle sensor. Refer to [BRC-62, "Work Procedure"](#).

# FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

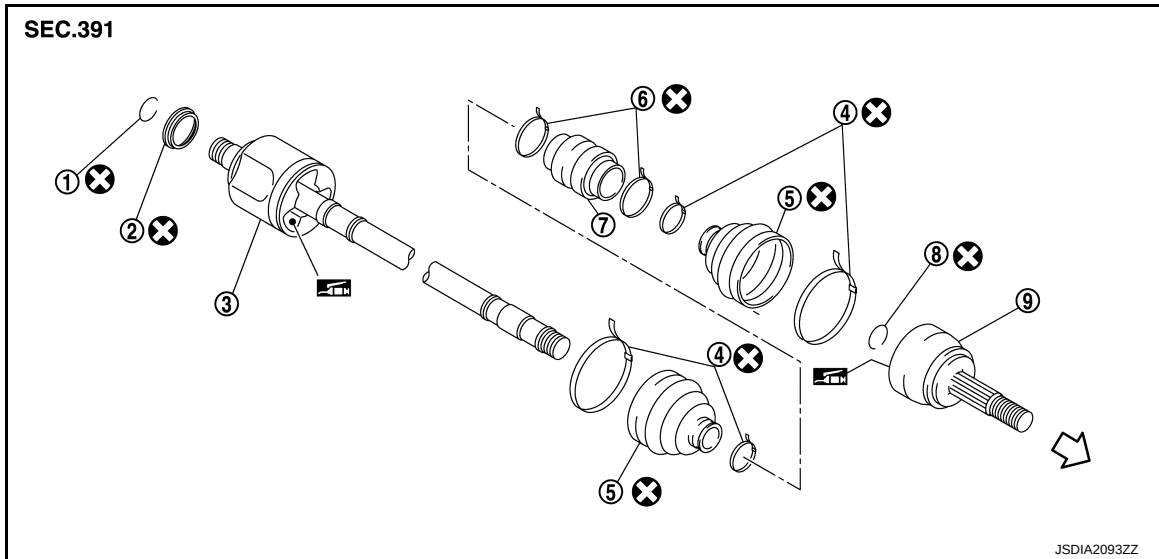
## FRONT DRIVE SHAFT BOOT

2WD

2WD : Exploded View

INFOID:0000000011675987

LEFT SIDE



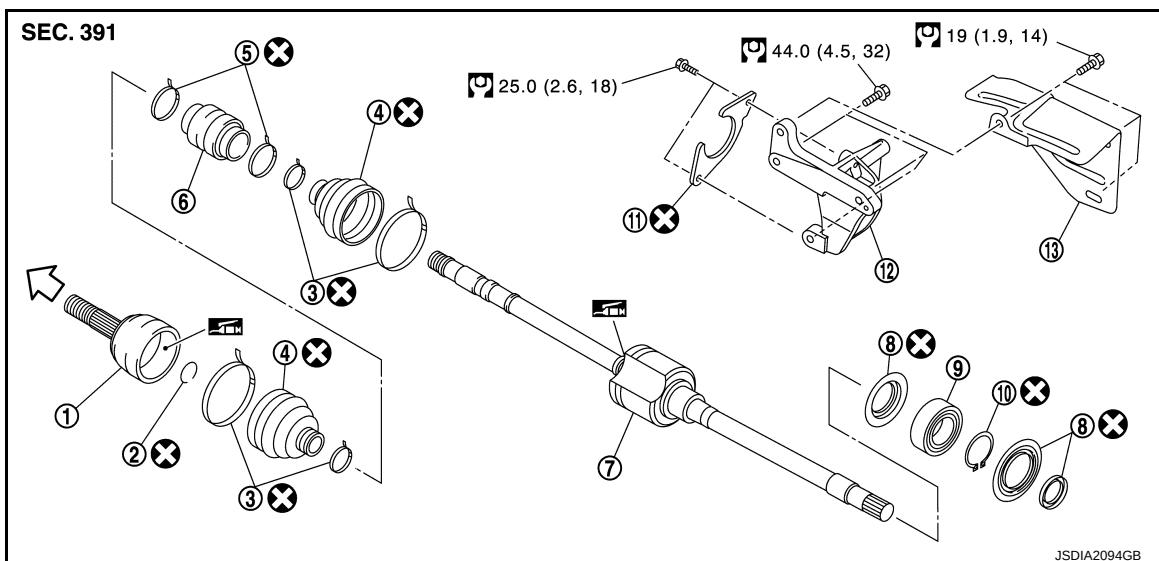
- |                   |                  |                       |
|-------------------|------------------|-----------------------|
| 1. Circular clip  | 2. Dust shield   | 3. Housing assembly   |
| 4. Boot band      | 5. Boot          | 6. Damper band        |
| 7. Dynamic damper | 8. Circular clip | 9. Joint sub-assembly |

↩ : Wheel side

: Fill NISSAN Genuine grease or equivalent.

⊗ : Always replace after every disassembly.

RIGHT SIDE



- |                       |                  |                             |
|-----------------------|------------------|-----------------------------|
| 1. Joint sub-assembly | 2. Circular clip | 3. Boot band                |
| 4. Boot               | 5. Damper band   | 6. Dynamic damper           |
| 7. Housing assembly   | 8. Dust shield   | 9. Support bearing          |
| 10. Snap ring         | 11. Plate        | 12. Support bearing bracket |

# FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

13. Heat insulator

⇐ : Wheel side

 : Fill NISSAN Genuine grease or equivalent.

 : Always replace after every disassembly.

 : N·m (kg·m, ft·lb)

## 2WD : Removal and Installation

INFOID:000000011675988

### REMOVAL

#### Wheel Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

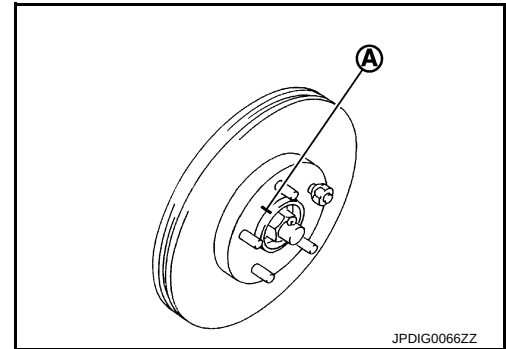
#### CAUTION:

**Never depress brake pedal while brake caliper is removed.**

5. Remove disc rotor.

#### CAUTION:

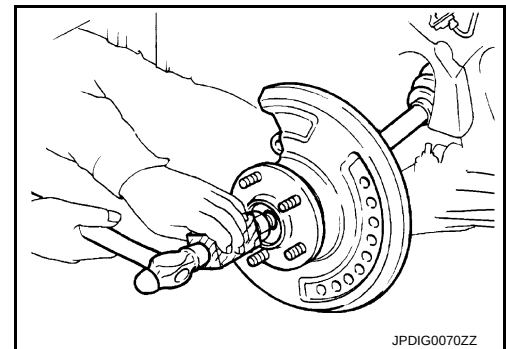
- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.
7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

#### NOTE:

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
10. Remove drive shaft from wheel hub assembly.

#### CAUTION:

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

11. Remove boot bands, and then remove boot from joint sub-assembly.

# FRONT DRIVE SHAFT BOOT

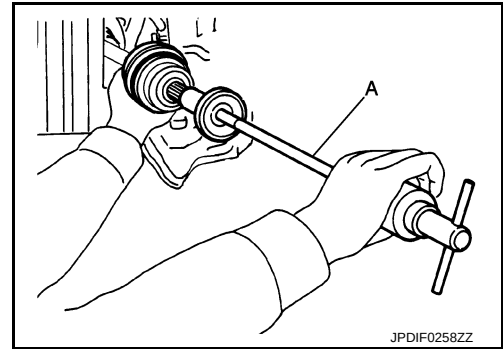
## < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

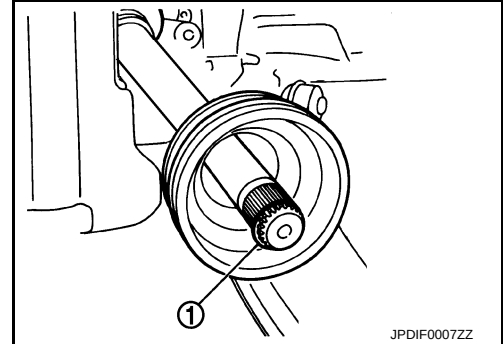
12. Screw drive shaft puller (A) (commercial service tool) into joint sub-assembly screw part to a length of 30 mm (1.18 in) or more. Support drive shaft with one hand and pull out joint sub-assembly from shaft.

**CAUTION:**

- Align drive shaft puller and drive shaft and remove them by pulling firmly and uniformly.
- If joint sub-assembly cannot be pulled out, try after removing drive shaft from vehicle. Refer to [FAX-80, "2WD : Removal and Installation"](#).



13. Remove circular clip (1) from shaft.  
14. Remove boot from shaft.



### Transaxle Side

- Remove boot after removing drive shaft.
- Remove: Refer to [FAX-80, "2WD : Removal and Installation"](#).
- Disassembly: Refer to [FAX-84, "2WD : Disassembly and Assembly"](#).

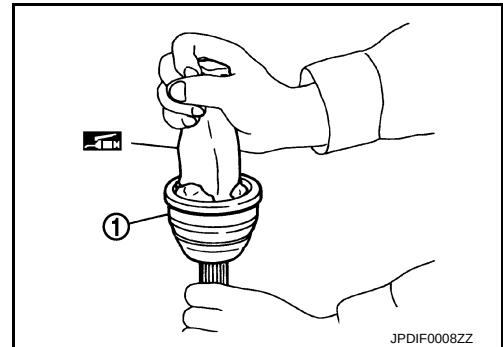
## INSTALLATION

### Wheel Side

1. Clean the old grease on joint sub-assembly with paper waste.  
2. Fill serration slot joint sub-assembly (1) with NISSAN genuine grease or equivalent until the serration slot and ball groove become full to the brim.

**CAUTION:**

After applying grease, use a paper waste to wipe off old grease that has oozed out.



3. Install boot and boot bands to shaft.  
**CAUTION:**
- Wrap serration on shaft with tape to protect the boot from damage.
  - Never reuse boot and boot band.
4. Remove the tape wrapped around the serration on shaft.

## FRONT DRIVE SHAFT BOOT

### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

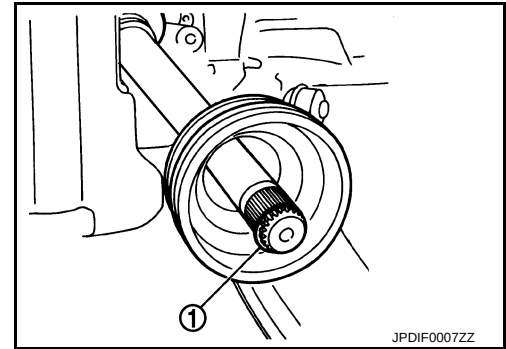
5. Position the circular clip (1) on groove at the shaft edge.

**CAUTION:**

Never reuse circular clip.

**NOTE:**

Drive joint inserter is recommended when installing circular clip.

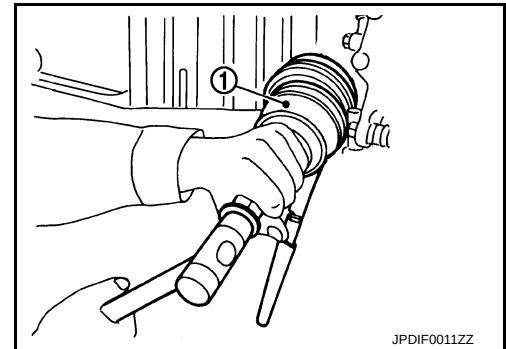


6. Align both center axes of the shaft edge and joint sub-assembly. Then assemble shaft with joint sub-assembly holding circular clip.

7. Install joint sub-assembly (1) to shaft using plastic hammer.

**CAUTION:**

- Check circular clip is properly positioned on groove of the joint sub-assembly.
- Confirm that joint sub-assembly is correctly engaged while rotating drive shaft.



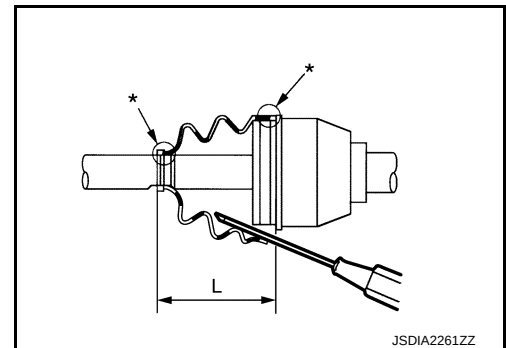
8. Apply the specified amount of grease into the boot inside from large diameter side of boot.

**Grease amount** : Refer to [FAX-106, "Drive Shaft"](#).

9. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or joint sub-assembly, boot may be removed. Remove all grease from the boot mounting surface.



10. To prevent the deformation of the boot, adjust the boot installation length (L) to the specified value shown below by inserting the suitable tool into inside of the boot from the large diameter side of the boot and discharging the inside air.

**L** : Refer to [FAX-106, "Drive Shaft"](#).

**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with a tip of tool.

# FRONT DRIVE SHAFT BOOT

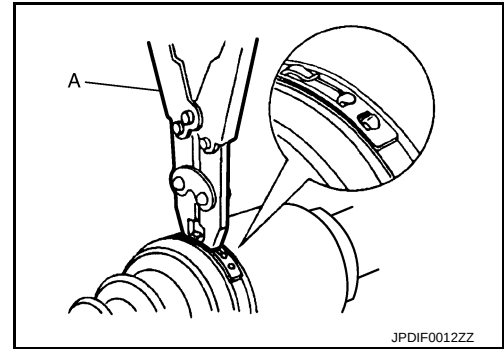
< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

11. Secure the large and small ends of the boot with boot bands using the boot band crimping tool (A) [SST:KV40107300 ( — )].

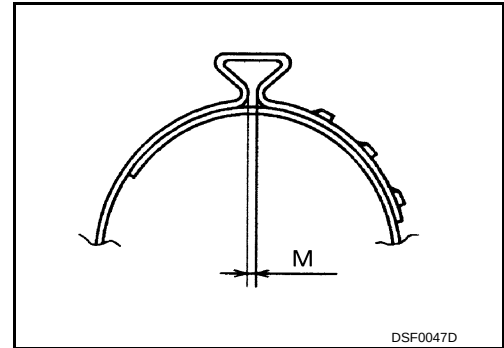
**CAUTION:**

- Never reuse boot band.



- Secure boot band so that dimension (M) meets the specification as shown in the figure.

**Dimension (M) : 2.0 – 3.0 mm (0.079 – 0.118 in)**



12. Check that displacement does not occur when boot is rotated with the joint sub-assembly and shaft fixed.

**CAUTION:**

- Reinstall them using boot bands when boot installation positions become incorrect.
- Never reuse boot band.

13. Clean the matching surface of wheel hub lock nut and wheel hub assembly.

**CAUTION:**

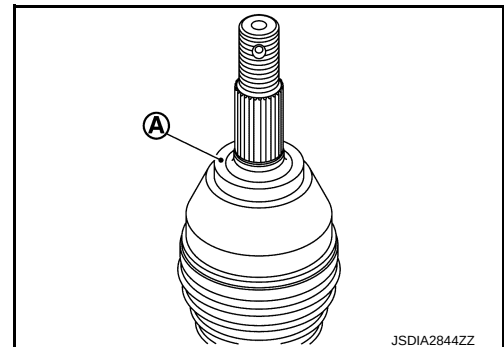
**Never apply lubricating oil to these matching surface.**

14. Clean the matching surface of drive shaft, wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

**CAUTION:**

**Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.**

**Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)**



15. Insert drive shaft to wheel hub assembly, and then temporarily tighten wheel hub lock nut.

**CAUTION:**

- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

16. Install strut assembly to steering knuckle. Refer to [FSU-9, "Exploded View"](#).

17. Install disc rotor. Refer to [FAX-63, "Removal and Installation"](#).

18. Install caliper assembly to steering knuckle. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

19. Install lock plate to strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).

20. Install wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).

21. Use the following torque range for tightening the wheel hub lock nut.

 : **180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)**

## FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

### CAUTION:

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

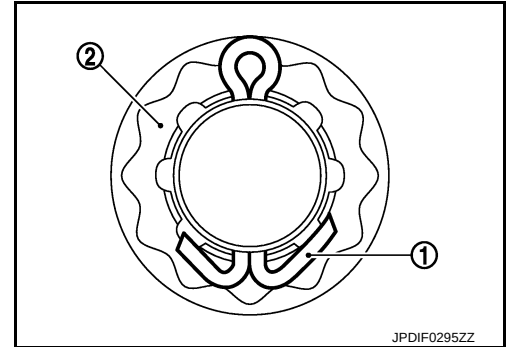
### NOTE:

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

22. When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

### CAUTION:

Never reuse cotter pin.



23. Install tires. Refer to [WT-39, "Exploded View"](#).

24. Perform inspection after installation. Refer to [FAX-72, "2WD : Inspection"](#).

Transaxle Side

- Install drive shaft to vehicle.
- Installation: Refer to [FAX-80, "2WD : Removal and Installation"](#).
- Assembly: Refer to [FAX-84, "2WD : Disassembly and Assembly"](#).

## 2WD : Inspection

INFOID:0000000011675989

### INSPECTION AFTER INSTALLATION

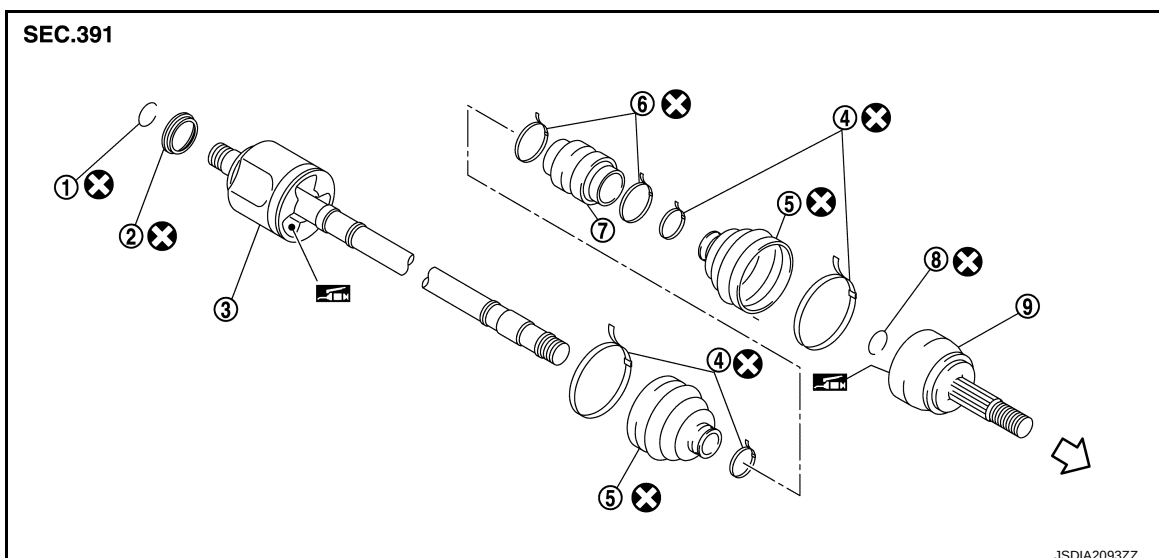
1. Check wheel sensor harness for proper connection. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
2. Check the wheel alignment. Refer to [FSU-7, "Inspection"](#).
3. Adjust neutral position of steering angle sensor. Refer to [BRC-62, "Work Procedure"](#).

## AWD

### AWD : Exploded View

INFOID:0000000011675990

LEFT SIDE





# FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

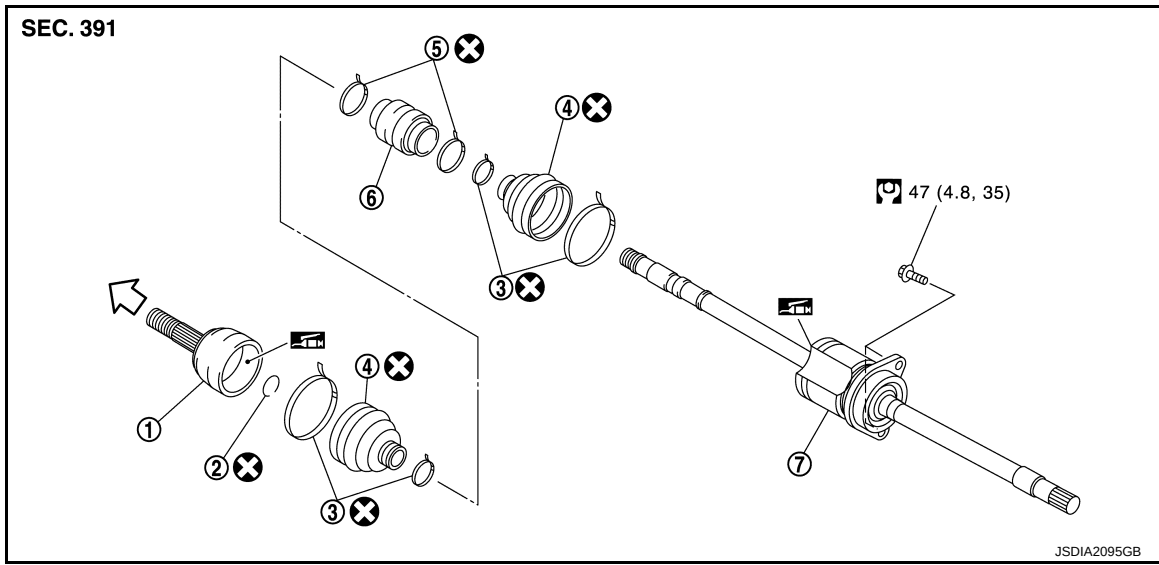
- |                   |                  |                       |
|-------------------|------------------|-----------------------|
| 1. Circular clip  | 2. Dust shield   | 3. Housing assembly   |
| 4. Boot band      | 5. Boot          | 6. Damper band        |
| 7. Dynamic damper | 8. Circular clip | 9. Joint sub-assembly |

↩ : Wheel side

 : Fill NISSAN Genuine grease or equivalent.

⊗ : Always replace after every disassembly.

## RIGHT SIDE



- |                       |                  |                   |
|-----------------------|------------------|-------------------|
| 1. Joint sub-assembly | 2. Circular clip | 3. Boot band      |
| 4. Boot               | 5. Damper band   | 6. Dynamic damper |
| 7. Housing assembly   |                  |                   |

↩ : Wheel side

 : Fill NISSAN Genuine grease or equivalent.

⊗ : Always replace after every disassembly.

 : N·m (kg-m, ft-lb)

## AWD : Removal and Installation

INFOID:000000011675991

### REMOVAL

#### Wheel Side

- Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
- Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
- Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
- Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

#### CAUTION:

**Never depress brake pedal while brake caliper is removed.**

- Remove disc rotor.

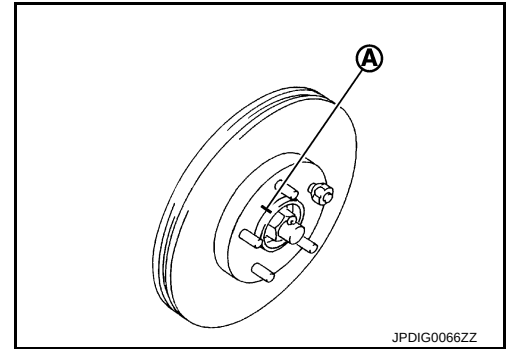
#### CAUTION:

## FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

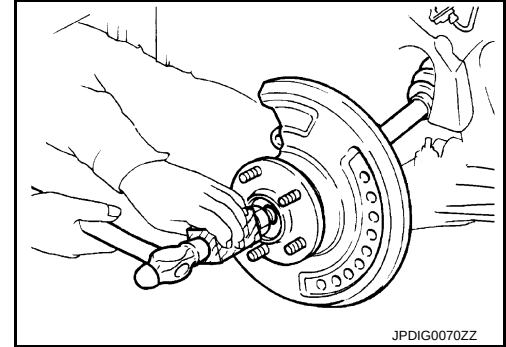
- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.
7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

**NOTE:**

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
10. Remove drive shaft from wheel hub assembly.

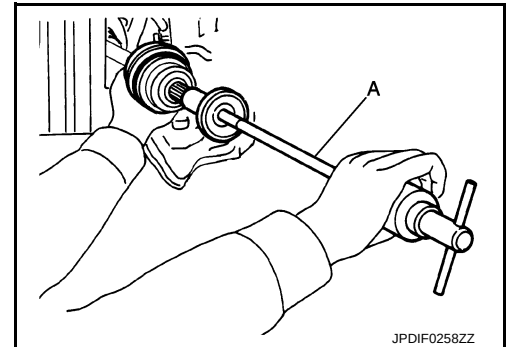
**CAUTION:**

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

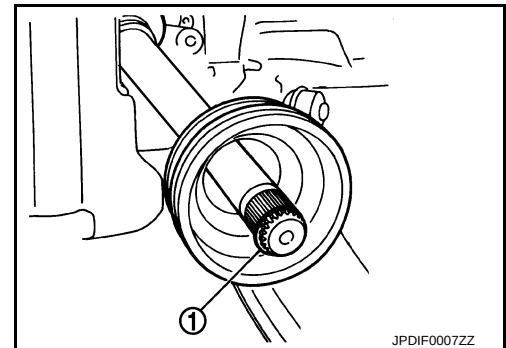
11. Remove boot bands, and then remove boot from joint sub-assembly.
12. Screw drive shaft puller (A) (commercial service tool) into joint sub-assembly screw part to a length of 30 mm (1.18 in) or more. Support drive shaft with one hand and pull out joint sub-assembly from shaft.

**CAUTION:**

- Align drive shaft puller and drive shaft and remove them by pulling firmly and uniformly.
- If joint sub-assembly cannot be pulled out, try after removing drive shaft from vehicle. Refer to [FAX-94, "AWD : Removal and Installation"](#).



13. Remove circular clip (1) from shaft.
14. Remove boot from shaft.



Transaxle Side

- Remove boot after removing drive shaft.

# FRONT DRIVE SHAFT BOOT

## < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

- Remove: Refer to [FAX-94, "AWD : Removal and Installation"](#).
- Disassembly: Refer to [FAX-98, "AWD : Disassembly and Assembly"](#).

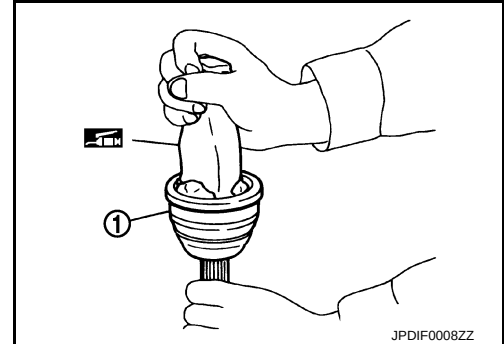
## INSTALLATION

### Wheel Side

1. Clean the old grease on joint sub-assembly with paper waste.
2. Fill serration slot joint sub-assembly (1) with NISSAN genuine grease or equivalent until the serration slot and ball groove become full to the brim.

#### **CAUTION:**

**After applying grease, use a paper waste to wipe off old grease that has oozed out.**



3. Install boot and boot bands to shaft.

#### **CAUTION:**

- Wrap serration on shaft with tape to protect the boot from damage.
- Never reuse boot and boot band.

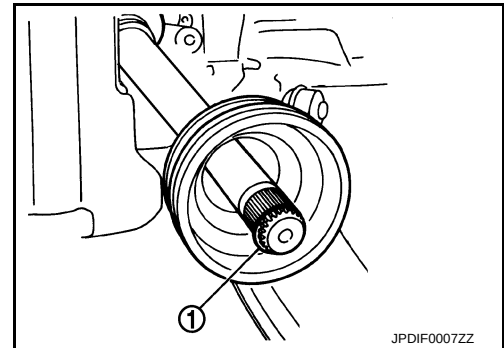
4. Remove the tape wrapped around the serration on shaft.
5. Position the circular clip (1) on groove at the shaft edge.

#### **CAUTION:**

**Never reuse circular clip.**

#### **NOTE:**

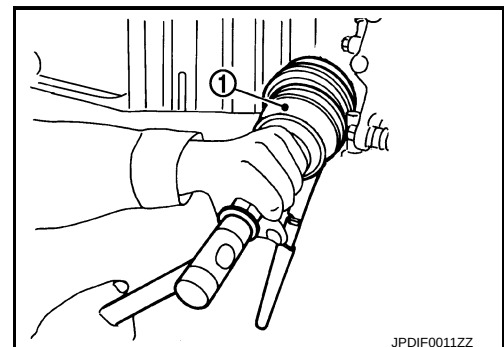
Drive joint inserter is recommended when installing circular clip.



6. Align both center axles of the shaft edge and joint sub-assembly. Then assemble shaft with joint sub-assembly holding circular clip.
7. Install joint sub-assembly (1) to shaft using plastic hammer.

#### **CAUTION:**

- Check circular clip is properly positioned on groove of the joint sub-assembly.
- Confirm that joint sub-assembly is correctly engaged while rotating drive shaft.



8. Apply the specified amount of grease into the boot inside from large diameter side of boot.

**Grease amount** : Refer to [FAX-106, "Drive Shaft"](#).

## FRONT DRIVE SHAFT BOOT

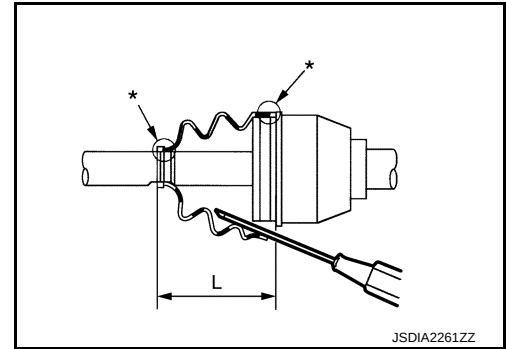
### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

9. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or joint sub-assembly, boot may be removed. Remove all grease from the boot mounting surface.



10. To prevent the deformation of the boot, adjust the boot installation length (L) to the specified value shown below by inserting the suitable tool into inside of the boot from the large diameter side of the boot and discharging the inside air.

**L** : Refer to [FAX-106, "Drive Shaft"](#).

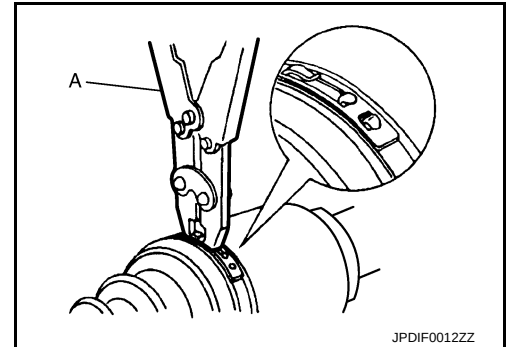
**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with a tip of tool.

11. Secure the large and small ends of the boot with boot bands using the boot band crimping tool (A) [SST:KV40107300 ( — )].

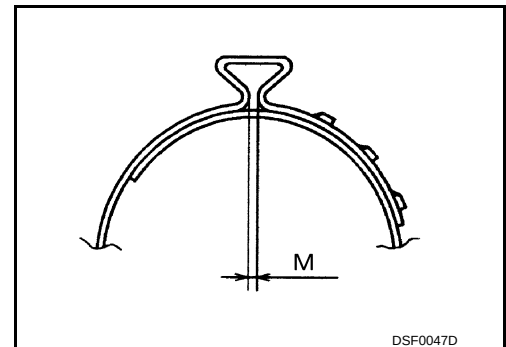
**CAUTION:**

- Never reuse boot band.



- Secure boot band so that dimension (M) meets the specification as shown in the figure.

**Dimension (M)** : 2.0 – 3.0 mm (0.079 – 0.118 in)



12. Check that displacement does not occur when boot is rotated with the joint sub-assembly and shaft fixed.

**CAUTION:**

- Reinstall them using boot bands when boot installation positions become incorrect.
- Never reuse boot band.

13. Clean the matching surface of wheel hub lock nut and wheel hub assembly.

**CAUTION:**

Never apply lubricating oil to these matching surface.

# FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

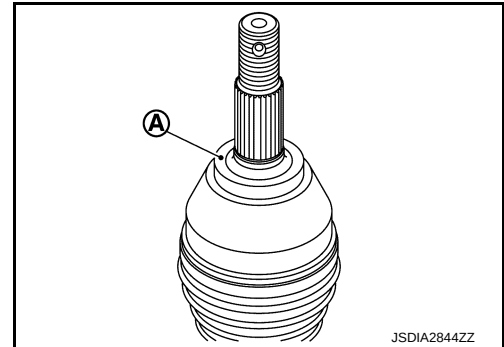
[EXCEPT FOR NISMO RS]

14. Clean the matching surface of drive shaft, wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

**CAUTION:**

**Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.**

**Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)**



15. Insert drive shaft to wheel hub assembly, and then temporarily tighten wheel hub lock nut.

**CAUTION:**

- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

16. Install strut assembly to steering knuckle. Refer to [FSU-9, "Exploded View"](#).

17. Install disc rotor. Refer to [FAX-63, "Removal and Installation"](#).

18. Install caliper assembly to steering knuckle. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

19. Install lock plate to strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).

20. Install wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).

21. Use the following torque range for tightening the wheel hub lock nut.

 : 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)

**CAUTION:**

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

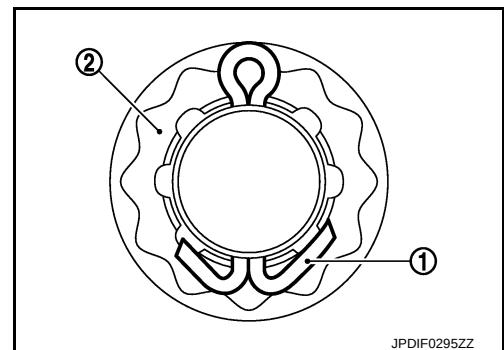
**NOTE:**

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

22. When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

**CAUTION:**

**Never reuse cotter pin.**



23. Install tires. Refer to [WT-39, "Exploded View"](#).

24. Perform inspection after installation. Refer to [FAX-77, "AWD : Inspection"](#).

Transaxle Side

- Install drive shaft to vehicle.
- Installation: Refer to [FAX-94, "AWD : Removal and Installation"](#).
- Assembly: Refer to [FAX-98, "AWD : Disassembly and Assembly"](#).

AWD : Inspection

INFOID:0000000011675992

INSPECTION AFTER INSTALLATION

## FRONT DRIVE SHAFT BOOT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

1. Check wheel sensor harness for proper connection. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
2. Check the wheel alignment. Refer to [FSU-7, "Inspection"](#).
3. Adjust neutral position of steering angle sensor. Refer to [BRC-62, "Work Procedure"](#).

# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

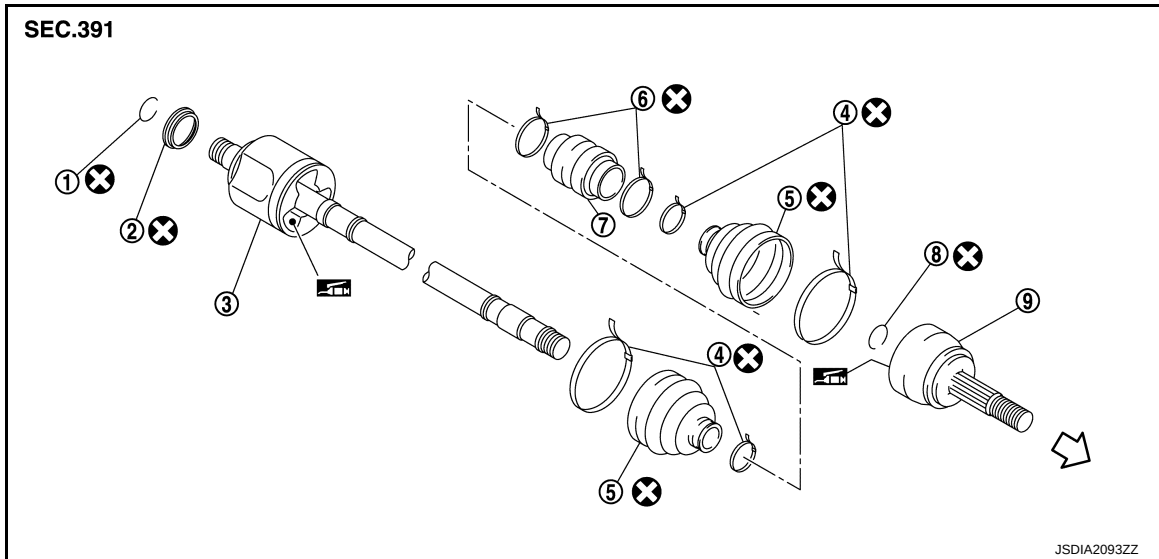
## FRONT DRIVE SHAFT

2WD

2WD : Exploded View

INFOID:000000011675993

LEFT SIDE



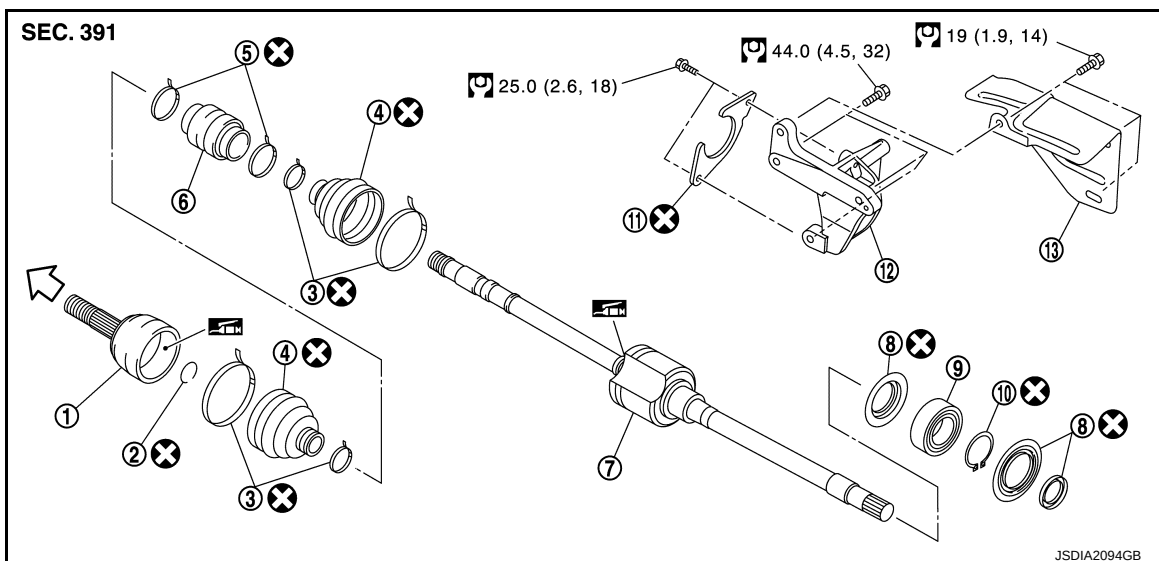
- |                   |                  |                       |
|-------------------|------------------|-----------------------|
| 1. Circular clip  | 2. Dust shield   | 3. Housing assembly   |
| 4. Boot band      | 5. Boot          | 6. Damper band        |
| 7. Dynamic damper | 8. Circular clip | 9. Joint sub-assembly |

↩ : Wheel side

: Fill NISSAN Genuine grease or equivalent.

⊗ : Always replace after every disassembly.

RIGHT SIDE



- |                       |                  |                             |
|-----------------------|------------------|-----------------------------|
| 1. Joint sub-assembly | 2. Circular clip | 3. Boot band                |
| 4. Boot               | 5. Damper band   | 6. Dynamic damper           |
| 7. Housing assembly   | 8. Dust shield   | 9. Support bearing          |
| 10. Snap ring         | 11. Plate        | 12. Support bearing bracket |

# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

13. Heat insulator

⇐ : Wheel side

 : Fill NISSAN Genuine grease or equivalent.

⊗: Always replace after every disassembly.

 : N·m (kg·m, ft·lb)

## 2WD : Removal and Installation

INFOID:000000011675994

### REMOVAL

#### Left Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

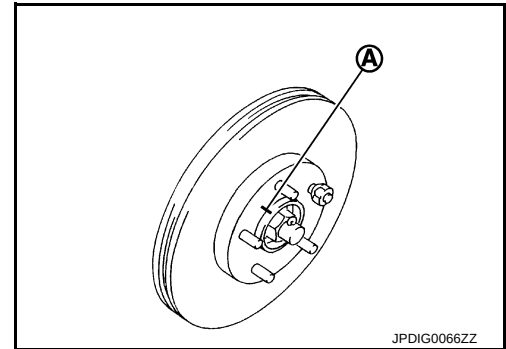
#### CAUTION:

**Never depress brake pedal while brake caliper is removed.**

5. Remove disc rotor.

#### CAUTION:

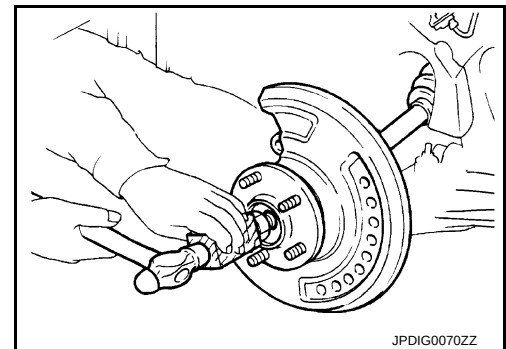
- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.
7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

#### NOTE:

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
10. Remove drive shaft from wheel hub assembly.

#### CAUTION:

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.



## FRONT DRIVE SHAFT

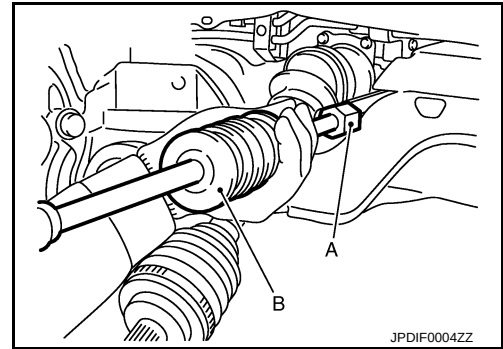
### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

11. Use the drive shaft attachment (A) [SST:KV40107500 ( — )] and a sliding hammer (B) (commercial service tool) while inserting tip of the drive shaft attachment between shaft and transaxle assembly, and then remove drive shaft from transaxle assembly.

**CAUTION:**

- Never place drive shaft joint at an extreme angle when removing drive shaft. Also be careful not to overextend slide joint.
- Confirm that the circular clip is attached to the drive shaft.



#### Right Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

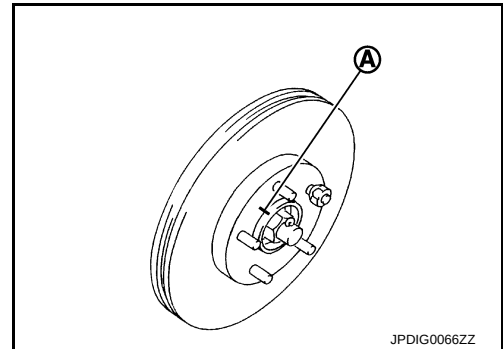
**CAUTION:**

Never depress brake pedal while brake caliper is removed.

5. Remove disc rotor.

**CAUTION:**

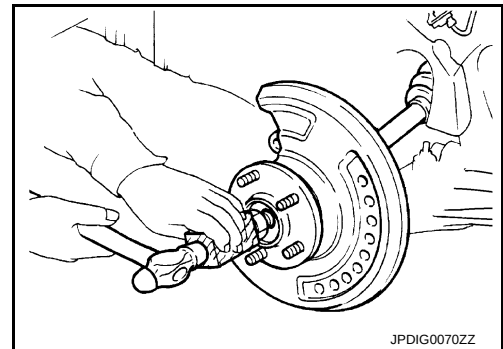
- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.
7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

**NOTE:**

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).
10. Remove drive shaft from wheel hub assembly.

**CAUTION:**

  - Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
  - Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.
11. Remove plate from support bearing bracket.
12. Remove drive shaft assembly from transaxle assembly.

## FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

### CAUTION:

Never place drive shaft joint at an extreme angle when removing drive shaft. Also be careful not to overextend slide joint.

13. Remove heat insulator.
14. Remove support bearing bracket.

### INSTALLATION

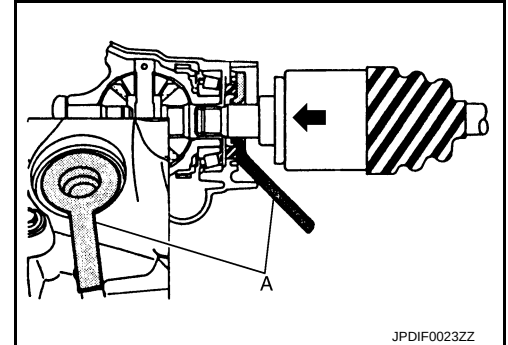
Note the following, and install in the reverse order of removal.

#### Left Side

- Always replace differential side oil seal with new one when installing drive shaft. Refer to [TM-23. "Removal and Installation"](#).
- Place the protector (A) [SST:KV38107900 ( — )] onto transaxle assembly to prevent damage to the differential side oil seal while inserting drive shaft. Slide drive shaft sliding joint and tap with a hammer to install securely.

### CAUTION:

- Check that circular clip is completely engaged.
- Never reuse circular clip.
- Never reuse differential side oil seal.



- Clean the matching surface of wheel hub lock nut and wheel hub assembly.

### CAUTION:

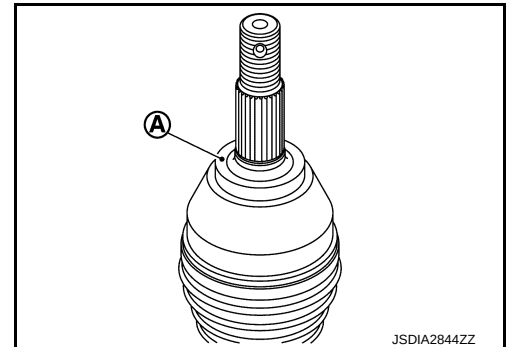
Never apply lubricating oil to these matching surface.

- Clean the matching surface of drive shaft and wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

### CAUTION:

Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.

Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)



- Use the following torque range for tightening the wheel hub lock nut.

 : 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)

### CAUTION:

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

### NOTE:

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

- Align the matching marks that have been made during removal when reusing the disc rotor.

# FRONT DRIVE SHAFT

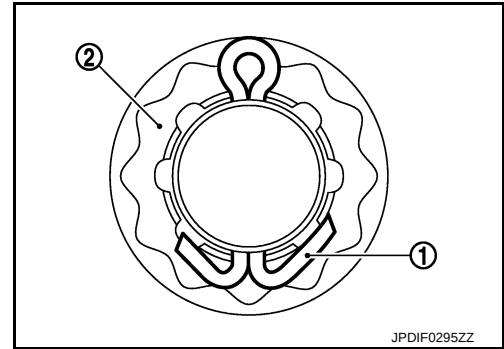
## < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

- When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

### CAUTION:

Never reuse cotter pin.



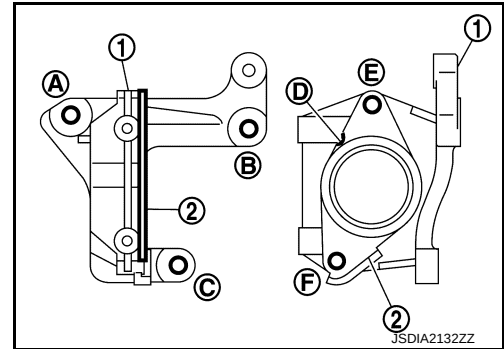
- Perform the final tightening of each of parts under unladen conditions, which were removed when removing wheel hub assembly and steering knuckle.
- Perform inspection after installation. Refer to [FAX-93, "2WD : Inspection"](#).

### Right Side

- Always replace differential side oil seal with new one when installing drive shaft. Refer to [TM-23, "Removal and Installation"](#).
- Install support bearing bracket (1) in following procedure,
  - Temporarily tighten mounting bolts (A), (B), (C), then tighten them to specified torque.
  - Set plate (2) so that notch (D) becomes upper side. Temporarily tighten mounting bolts (E), (F), then tighten them to specified torque.

### CAUTION:

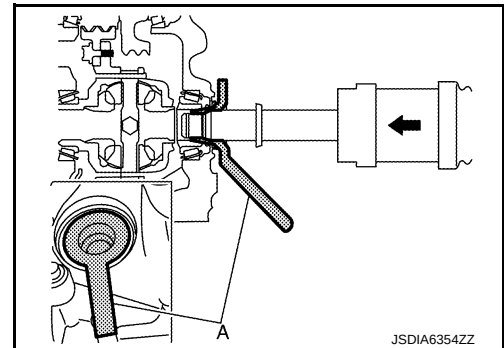
Never reuse plate.



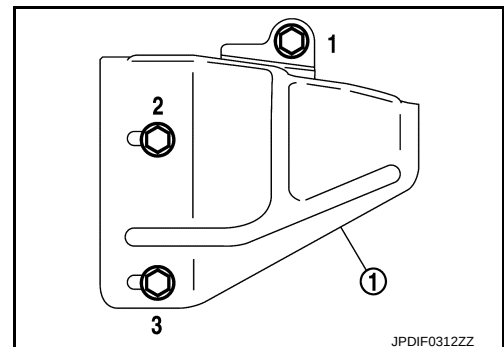
- Place the protector (A) [SST:KV38107900 ( — )] onto transaxle assembly to prevent damage to the differential side oil seal while inserting drive shaft. Slide drive shaft sliding joint and tap with a hammer to install securely.

### CAUTION:

Never reuse differential oil seal.



- To install mounting nuts of the heat insulator (1), temporarily tighten them in numerical order shown in the figure and tighten them to the specified torque.



- Clean the matching surface of wheel hub lock nut and wheel hub assembly.

### CAUTION:

Never apply lubricating oil to these matching surface.

## FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

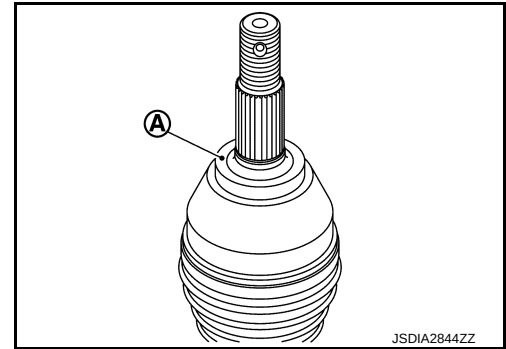
[EXCEPT FOR NISMO RS]

- Clean the matching surface of drive shaft and wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

**CAUTION:**

**Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.**

**Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)**



- Use the following torque range for tightening the wheel hub lock nut.

 : **180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)**

**CAUTION:**

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

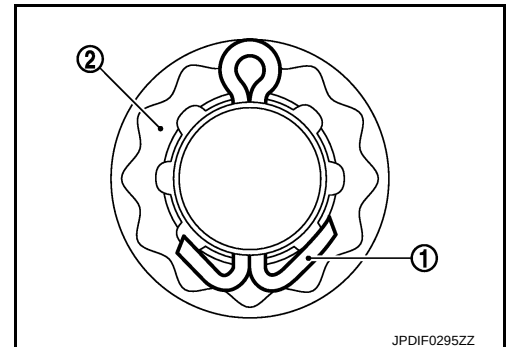
**NOTE:**

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

- Align the matching marks that have been made during removal when reusing the disc rotor.
- When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

**CAUTION:**

**Never reuse cotter pin.**



- Perform the final tightening of each of parts under unladen conditions, which were removed when removing wheel hub assembly and steering knuckle.
- Perform inspection after installation. Refer to [FAX-93, "2WD : Inspection"](#).

### 2WD : Disassembly and Assembly

INFOID:000000011675995

#### DISASSEMBLY

##### Wheel Side

1. Fix shaft with a vise.

**CAUTION:**

**Protect shaft using aluminum or copper plates when fixing with a vise.**

2. Remove boot bands, and then remove boot from joint sub-assembly.

## FRONT DRIVE SHAFT

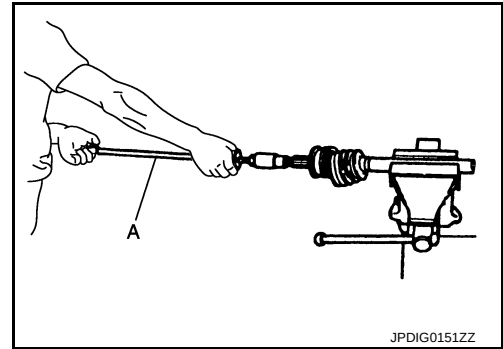
### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

3. Screw drive shaft puller (A) (commercial service tool) into joint sub-assembly screw part to a length of 30 mm (1.18 in) or more. Support drive shaft with one hand and pull out joint sub-assembly from shaft.

**CAUTION:**

- Align drive shaft puller and drive shaft and remove them by pulling firmly and uniformly.
- If joint sub-assembly cannot be removed after five or more unsuccessful attempts, replace shaft and joint sub-assembly as a set.



4. Remove circular clip from shaft.
5. Remove boot from shaft.

#### Transaxle Side (Left Drive Shaft)

1. Fix shaft with a vise.

**CAUTION:**

**Protect shaft using aluminum or copper plates when fixing with a vise.**

2. Remove wheel side boot from joint sub-assembly. Refer to [FAX-80, "2WD : Removal and Installation"](#).
3. Remove dynamic damper as per the following instructions:
  - a. Remove damper band.
  - b. Remove dynamic damper from housing assembly.
4. Remove boot bands, then remove boot from housing assembly.
5. Remove circular clip from housing assembly.
6. Remove dust shield from housing assembly.

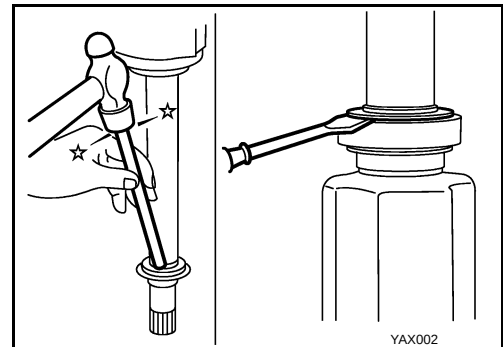
#### Transaxle Side (Right Drive Shaft)

1. Fix shaft with a vise.

**CAUTION:**

**Protect shaft using aluminum or copper plates when fixing with a vise.**

2. Remove wheel side boot from joint sub-assembly. Refer to [FAX-80, "2WD : Removal and Installation"](#).
3. Remove dynamic damper as per the following instructions:
  - a. Remove damper band.
  - b. Remove dynamic damper from housing assembly.
4. Remove boot bands, then remove boot from housing assembly.
5. Remove support bearing, follow the procedure described below.
  - a. Remove dust shield from housing.

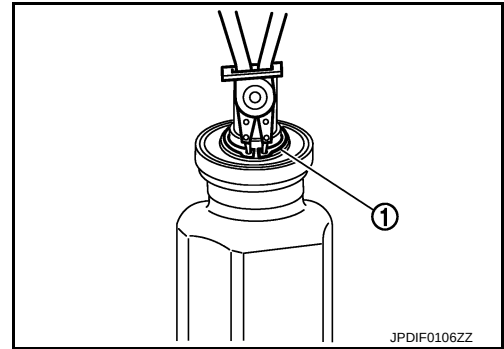


## FRONT DRIVE SHAFT

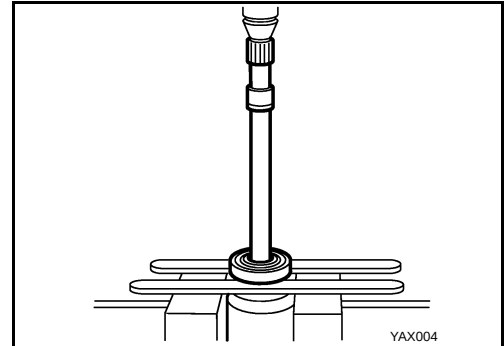
### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

- b. Remove snap ring (1).



- c. Press out support bearing from housing.



- d. Remove dust shield from housing.

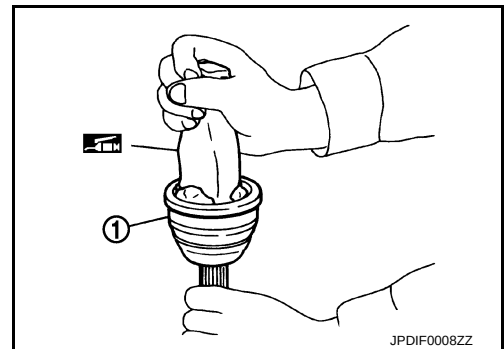
### ASSEMBLY

#### Wheel Side

1. Clean the old grease on joint sub-assembly with paper waste.
2. Fill serration slot joint sub-assembly (1) with NISSAN genuine grease or equivalent until the serration slot and ball groove become full to the brim.

**CAUTION:**

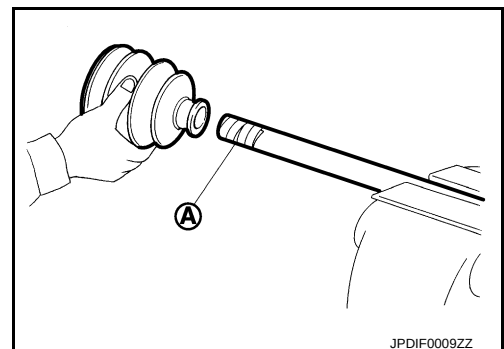
After applying grease, use a paper waste to wipe off old grease that has oozed out.



3. Install boot and boot bands to shaft.

**CAUTION:**

- Wrap serration on shaft with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



4. Remove the tape wrapped around the serration on shaft.

## FRONT DRIVE SHAFT

### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

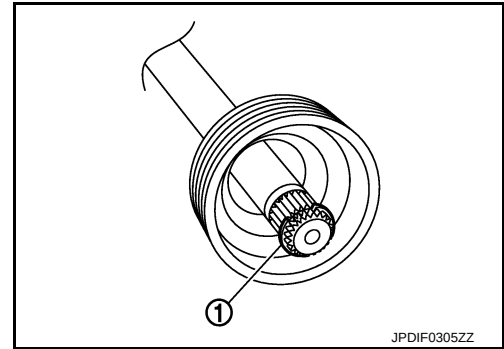
5. Position the circular clip (1) on groove at the shaft edge.

**CAUTION:**

**Never reuse circular clip.**

**NOTE:**

Drive joint inserter is recommended when installing circular clip.

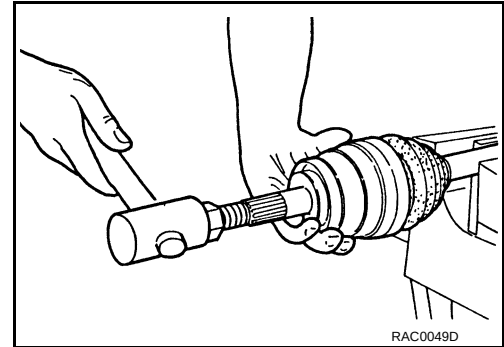


6. Align both center axes of the shaft edge and joint sub-assembly. Then assemble shaft with joint sub-assembly holding circular clip.

7. Install joint sub-assembly to shaft using plastic hammer.

**CAUTION:**

- Check circular clip is properly positioned on groove of the joint sub-assembly.
- Confirm that joint sub-assembly is correctly engaged while rotating drive shaft.



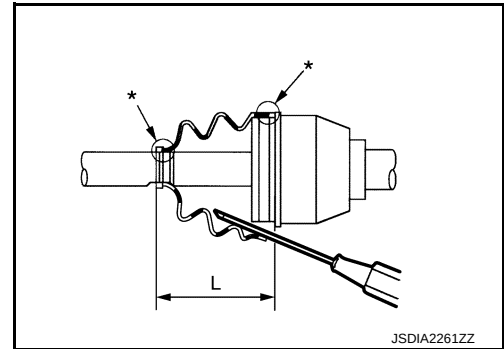
8. Apply the specified amount of grease into the boot inside from large diameter side of boot.

**Grease amount** : Refer to [FAX-106, "Drive Shaft"](#).

9. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or joint sub-assembly, boot may be removed. Remove all grease from the boot mounting surface.



10. To prevent the deformation of the boot, adjust the boot installation length (L) to the specified value shown below by inserting the suitable tool into inside of the boot from the large diameter side of the boot and discharging the inside air.

**L** : Refer to [FAX-106, "Drive Shaft"](#).

**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with a tip of tool.

## FRONT DRIVE SHAFT

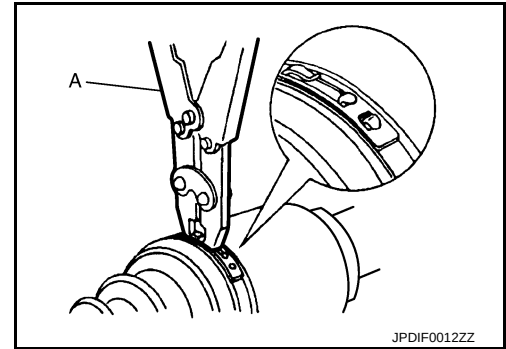
### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

11. Secure the large and small ends of the boot with boot bands using the boot band crimping tool (A) [SST:KV40107300 ( — )].

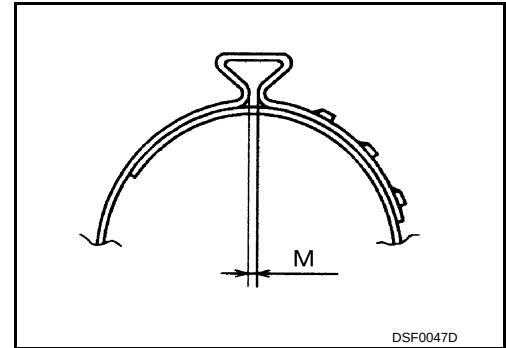
**CAUTION:**

- Never reuse boot band.



- Secure boot band so that dimension (M) meets the specification as shown in the figure.

**Dimension (M) : 2.0 – 3.0 mm (0.079 – 0.118 in)**



12. Check that displacement does not occur when boot is rotated with the joint sub-assembly and shaft fixed.

**CAUTION:**

- Reinstall them using boot bands when boot installation positions become incorrect.
- Never reuse boot band.

#### Transaxle Side (Left Drive Shaft)

1. Clean the old grease on housing assembly with paper waste.
2. Install dust shield to housing assembly.

**CAUTION:**

**Never reuse dust shield.**

3. Install circular clip to housing.

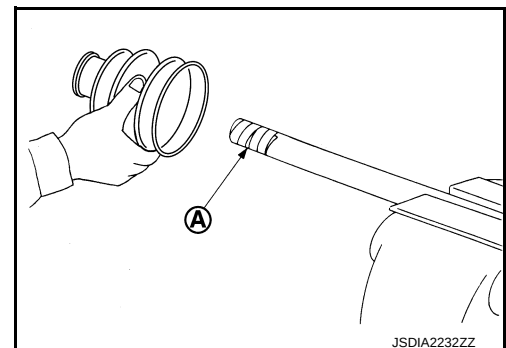
**CAUTION:**

**Never reuse circular clip.**

4. Install boot and boot bands to housing assembly.

**CAUTION:**

- Wrap serration on housing assembly with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



5. Remove the tape wrapped around the serration on shaft.
6. Apply NISSAN genuine grease (refer to parts catalog) to housing assembly.

**Grease amount : Refer to [FAX-106, "Drive Shaft"](#).**



## FRONT DRIVE SHAFT

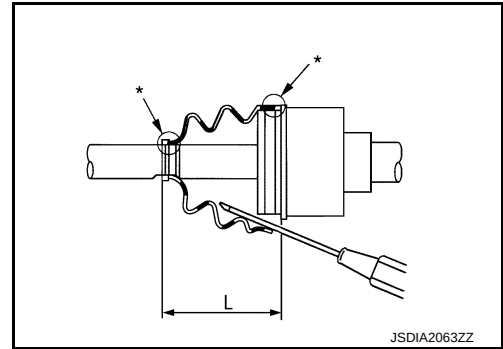
### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

7. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or housing assembly, boot may be removed. Remove all grease from the boot mounting surface.



8. To prevent the deformation of the boot, adjust the boot installation length to the value shown below (L) by inserting the suitable tool into the inside of boot from the large diameter side of boot and discharging inside air.

**L** : Refer to [FAX-106, "Drive Shaft"](#).

**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with the tip of tool.

9. Install boot bands securely.

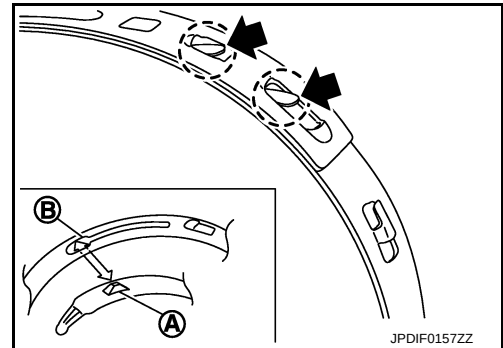
**CAUTION:**

**Never reuse boot bands.**

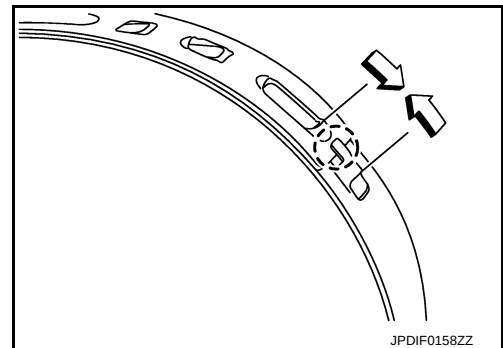
- a. Put boot band in the groove on drive shaft boot. Then fit pawls (➡) into holes to temporary installation.

**NOTE:**

For the large diameter side, fit projection (A) and guide slit (B) at first.



- b. Pinch projection on the band with suitable pliers to tighten band.  
c. Insert the tip of band into the lower part of pawl (marked with dotted circle) as shown in the figure.



10. Check that displacement does not occur when boot is rotated with the housing assembly fixed.

**CAUTION:**

- If displacement occurs, reinstall band.
- Never reuse boot band.

11. Install dynamic damper, follow the procedure described below.

- a. Install dynamic damper to shaft.

## FRONT DRIVE SHAFT

### < REMOVAL AND INSTALLATION >

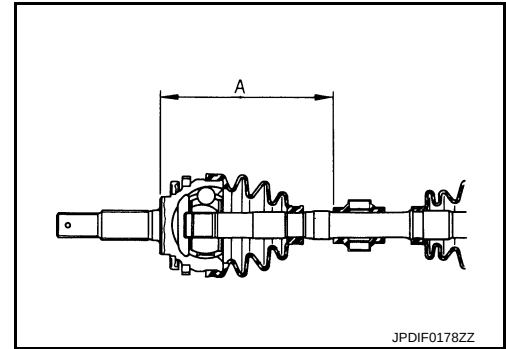
[EXCEPT FOR NISMO RS]

- b. Secure dynamic damper with bands in the following specified position (A) when installing.

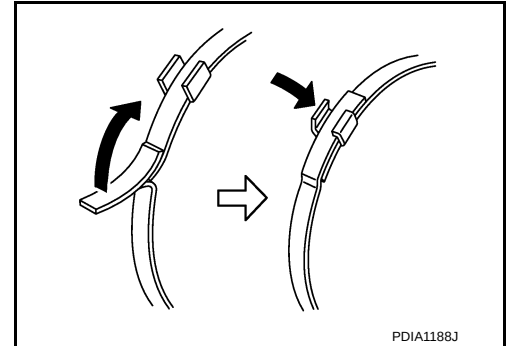
**CAUTION:**

**Never reuse boot bands.**

**A** : Refer to [FAX-106, "Drive Shaft"](#).



- c. Install boot bands securely as shown in the figure.



12. Install boot to the wheel side. Refer to [FAX-68, "2WD : Removal and Installation"](#).

Transaxle Side (Right Drive Shaft)

1. Clean the old grease on housing assembly with paper waste.
2. Install support bearing, follow the procedure described below.
  - a. Install dust shield to housing.

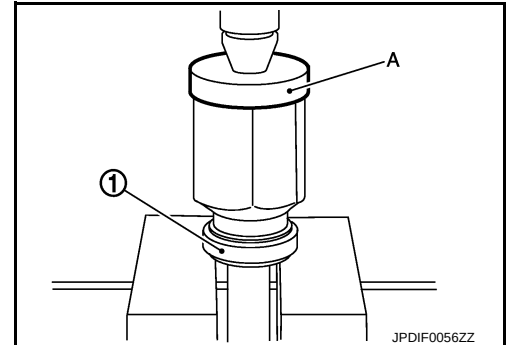
**CAUTION:**

**Never reuse dust shield.**

- b. Press support bearing (1) onto housing to using the suitable tool (A).

**CAUTION:**

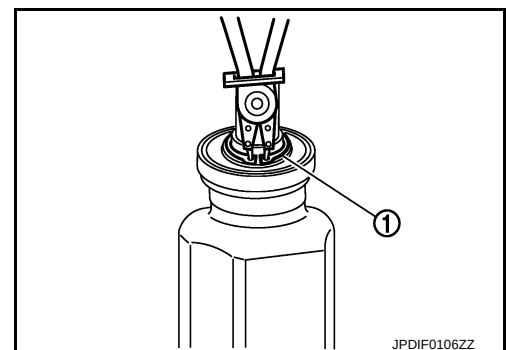
**Never reuse support bearing.**



- c. Install snap ring (1).

**CAUTION:**

**Never reuse snap ring.**



## FRONT DRIVE SHAFT

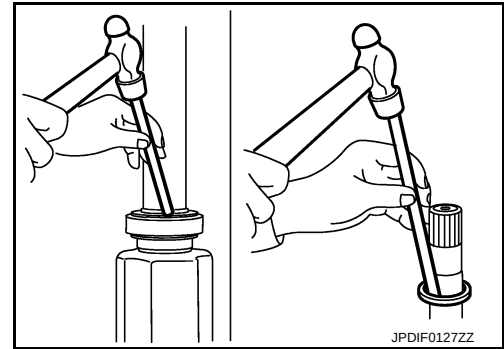
< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

- d. Install dust shields.

**CAUTION:**

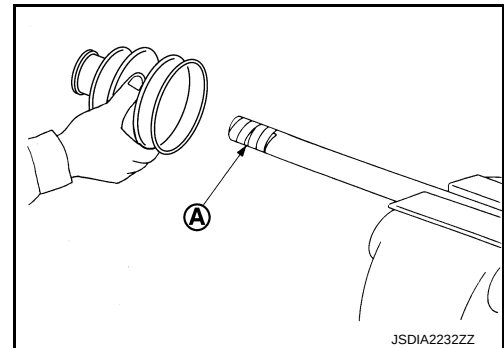
Never reuse dust shields.



3. Install boot and boot bands to housing assembly.

**CAUTION:**

- Wrap serration on housing assembly with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



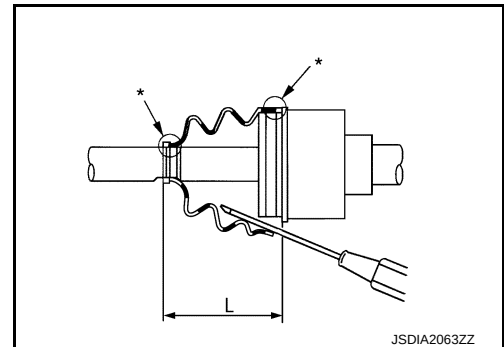
4. Remove the tape wrapped around the serration on shaft.  
5. Apply NISSAN genuine grease (refer to parts catalog) to housing assembly.

**Grease amount** : Refer to [FAX-106, "Drive Shaft"](#).

6. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or housing assembly, boot may be removed. Remove all grease from the boot mounting surface.



7. To prevent the deformation of the boot, adjust the boot installation length to the value shown below (L) by inserting the suitable tool into the inside of boot from the large diameter side of boot and discharging inside air.

**L** : Refer to [FAX-106, "Drive Shaft"](#).

**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with the tip of tool.

8. Install boot bands securely.

**CAUTION:**

Never reuse boot bands.

## FRONT DRIVE SHAFT

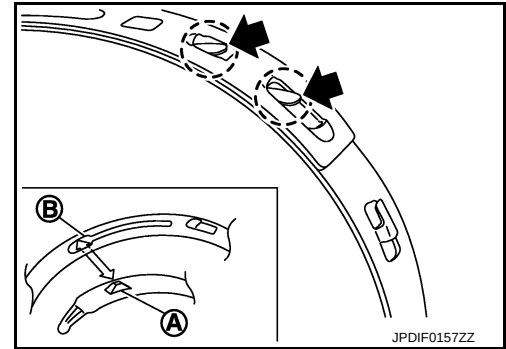
### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

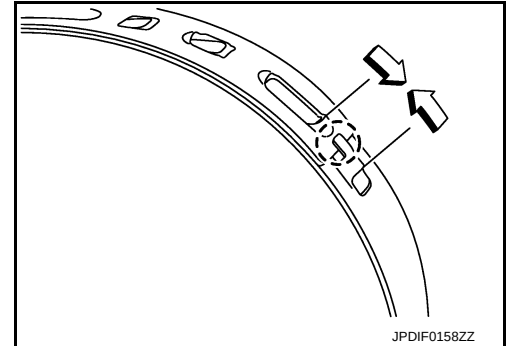
- a. Put boot band in the groove on drive shaft boot. Then fit pawls (➡) into holes to temporary installation.

**NOTE:**

For the large diameter side, fit projection (A) and guide slit (B) at first.



- b. Pinch projection on the band with suitable pliers to tighten band.
- c. Insert the tip of band into the lower part of pawl (marked with dotted circle) as shown in the figure.



9. Check that displacement does not occur when boot is rotated with the housing assembly fixed.

**CAUTION:**

- If displacement occurs, reinstall band.
- Never reuse boot band.

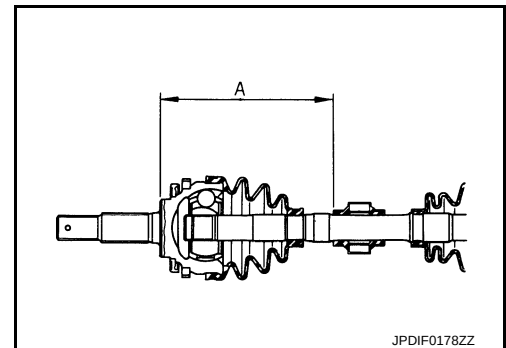
10. Install dynamic damper, follow the procedure described below.

- a. Install dynamic damper to shaft.
- b. Secure dynamic damper with bands in the following specified position (A) when installing.

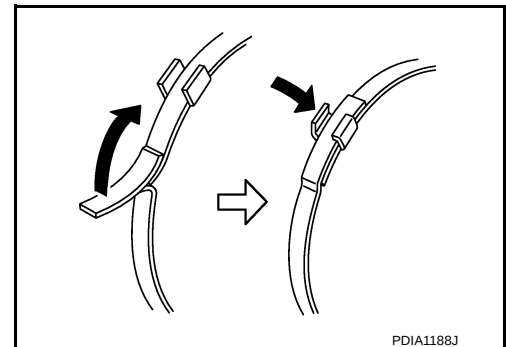
**CAUTION:**

**Never reuse bands.**

**A** : Refer to [FAX-106, "Drive Shaft"](#).



- c. Install boot bands securely as shown in the figure.



11. Install boot to the wheel side. Refer to [FAX-68, "2WD : Removal and Installation"](#).

# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

## 2WD : Inspection

INFOID:0000000011675996

### INSPECTION AFTER INSTALLATION

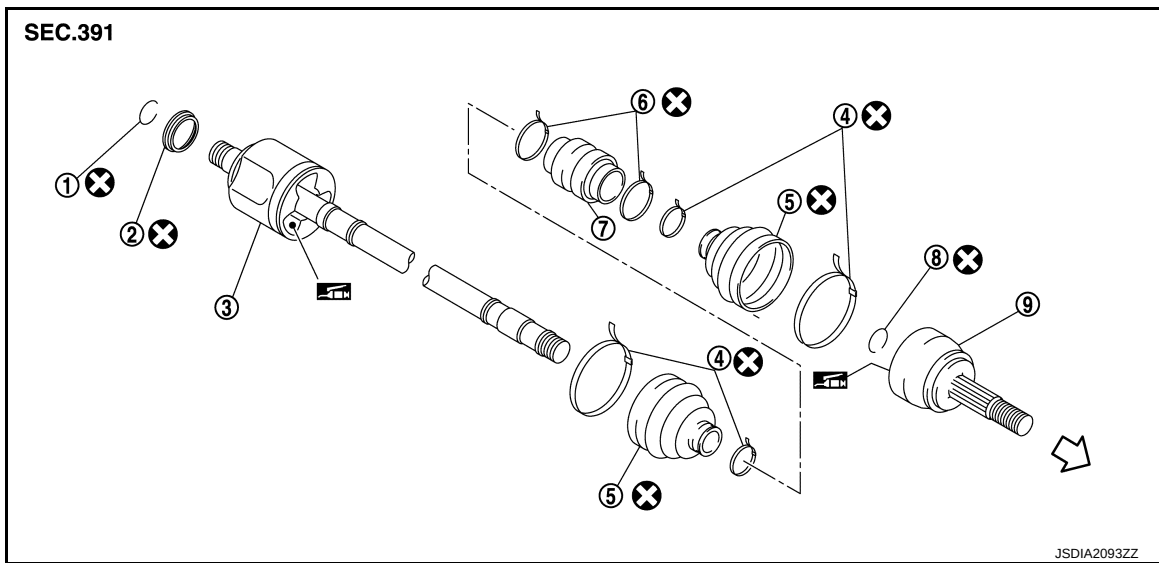
1. Check wheel sensor harness for proper connection. Refer to [BRC-132. "FRONT WHEEL SENSOR : Exploded View"](#).
2. Check the wheel alignment. Refer to [FSU-7. "Inspection"](#).
3. Adjust neutral position of steering angle sensor. Refer to [BRC-62. "Work Procedure"](#).

## AWD

### AWD : Exploded View

INFOID:0000000011675997

#### LEFT SIDE



- |                   |                  |                       |
|-------------------|------------------|-----------------------|
| 1. Circular clip  | 2. Dust shield   | 3. Housing assembly   |
| 4. Boot band      | 5. Boot          | 6. Damper band        |
| 7. Dynamic damper | 8. Circular clip | 9. Joint sub-assembly |

⇐ : Wheel side

: Fill NISSAN Genuine grease or equivalent.

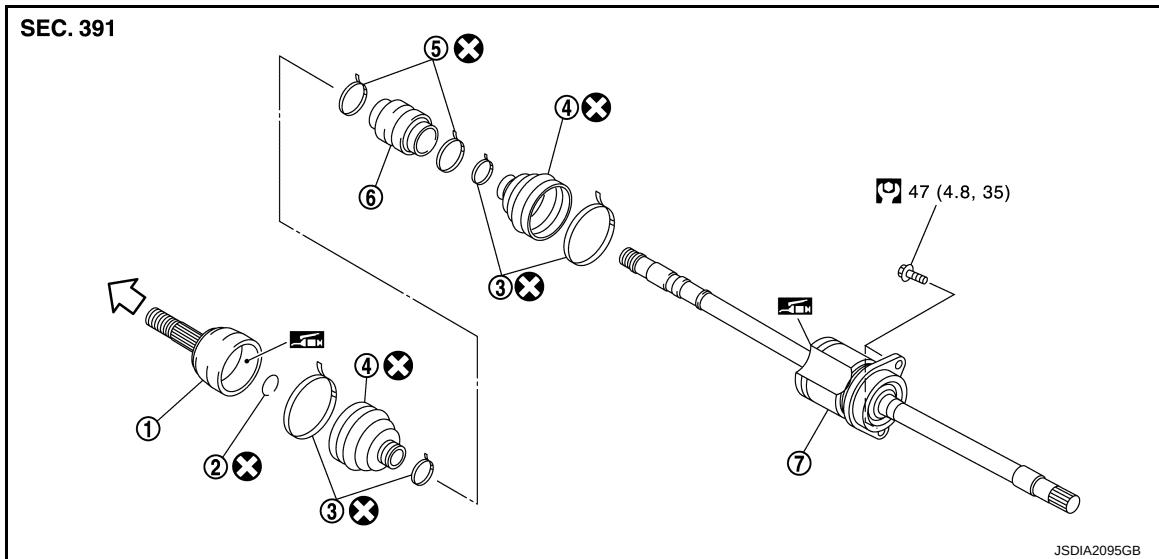
: Always replace after every disassembly.

#### RIGHT SIDE

# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]



- |                       |                  |                   |
|-----------------------|------------------|-------------------|
| 1. Joint sub-assembly | 2. Circular clip | 3. Boot band      |
| 4. Boot               | 5. Damper band   | 6. Dynamic damper |
| 7. Housing assembly   |                  |                   |

⇐ : Wheel side

: Fill NISSAN Genuine grease or equivalent.

: Always replace after every disassembly.

: N·m (kg-m, ft-lb)

## AWD : Removal and Installation

INFOID:000000011675998

### REMOVAL

#### Left Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

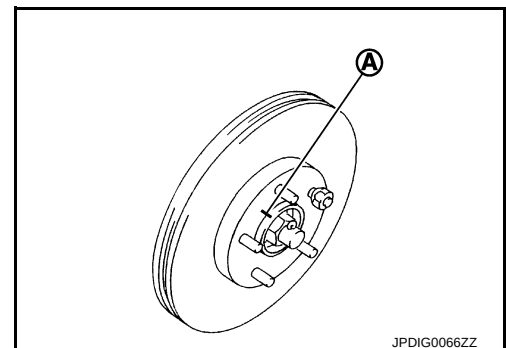
#### CAUTION:

**Never depress brake pedal while brake caliper is removed.**

5. Remove disc rotor.

#### CAUTION:

- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.

## FRONT DRIVE SHAFT

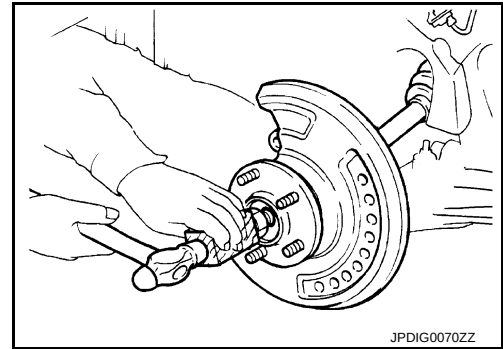
### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

**NOTE:**

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.  
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).  
10. Remove drive shaft from wheel hub assembly.

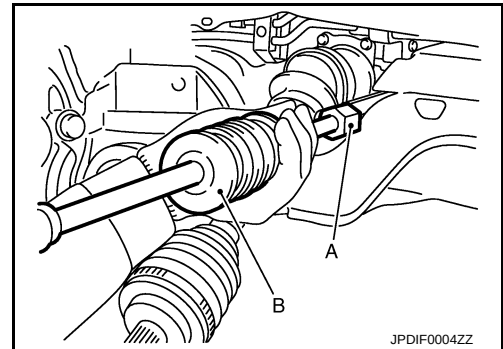
**CAUTION:**

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

11. Use the drive shaft attachment (A) [SST:KV40107500 ( — )] and a sliding hammer (B) (commercial service tool) while inserting tip of the drive shaft attachment between shaft and transaxle assembly, and then remove drive shaft from transaxle assembly.

**CAUTION:**

- Never place drive shaft joint at an extreme angle when removing drive shaft. Also be careful not to overextend slide joint.
- Confirm that the circular clip is attached to the drive shaft.



### Right Side

1. Remove tires with power tool. Refer to [WT-39, "Removal and Installation"](#).  
2. Remove wheel sensor and sensor harness. Refer to [BRC-132, "FRONT WHEEL SENSOR : Exploded View"](#).  
3. Remove lock plate from strut assembly. Refer to [BR-25, "FRONT : Removal and Installation"](#).  
4. Remove caliper assembly. Hang caliper assembly not to interfere with work. Refer to [BR-55, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).

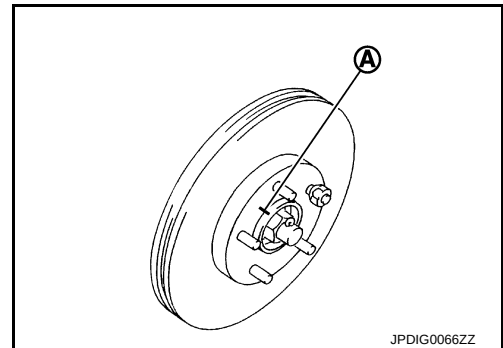
**CAUTION:**

Never depress brake pedal while brake caliper is removed.

5. Remove disc rotor.

**CAUTION:**

- Put matching marks (A) on the wheel hub assembly and the disc rotor before removing the disc rotor.
- Never drop disc rotor.



6. Remove cotter pin, and adjusting cap, and then loosen wheel hub lock nut with power tool.

## FRONT DRIVE SHAFT

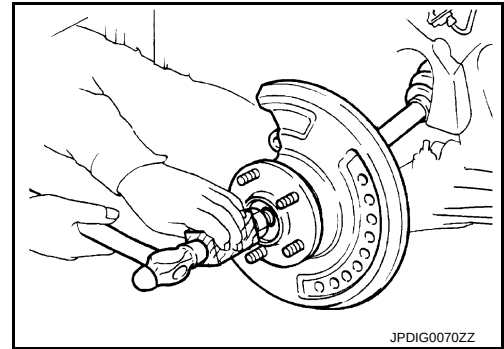
### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

7. Patch wheel hub lock nut with a piece of wood. Hammer the wood to disengage wheel hub assembly from drive shaft.

**NOTE:**

Use suitable puller, if wheel hub assembly and drive shaft cannot be separated even after performing the above procedure.



8. Remove wheel hub lock nut.  
9. Remove strut assembly from steering knuckle. Refer to [FSU-9, "Removal and Installation"](#).  
10. Remove drive shaft from wheel hub assembly.

**CAUTION:**

- Never place drive shaft joint at an extreme angle. Also be careful not to overextend slide joint.
- Never allow drive shaft to hang down without support for joint sub-assembly, shaft and the other parts.

11. Remove bearing housing bolts.  
12. Remove drive shaft assembly from transfer assembly.

**CAUTION:**

Never place drive shaft joint at an extreme angle when removing drive shaft. Also be careful not to overextend slide joint.

### INSTALLATION

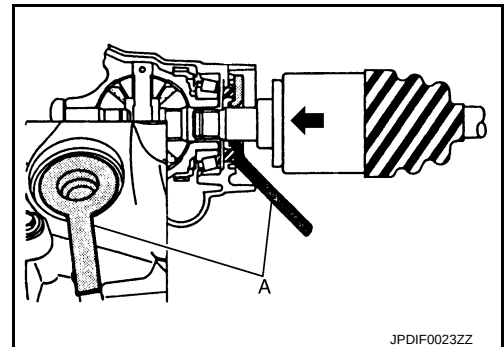
Note the following, and install in the reverse order of removal.

#### Left Side

- Always replace differential side oil seal with new one when installing drive shaft. Refer to [TM-559, "Removal and Installation"](#).
- Place the protector (A) [SST:KV38107900 ( — )] onto tranaxle assembly to prevent damage to the oil seal while inserting drive shaft. Slide drive shaft sliding joint and tap with a hammer to install securely.

**CAUTION:**

- Check that circular clip is completely engaged.
- Never reuse circular clip.
- Never reuse differential side oil seal.



- Clean the matching surface of wheel hub lock nut and wheel hub assembly.

**CAUTION:**

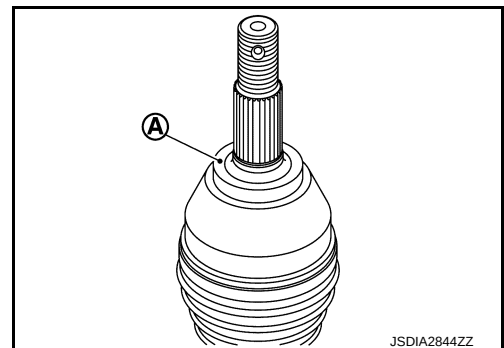
Never apply lubricating oil to these matching surface.

- Clean the matching surface of drive shaft and wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

**CAUTION:**

Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.

Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)



- Use the following torque range for tightening the wheel hub lock nut.



## FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

 : 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)

### CAUTION:

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

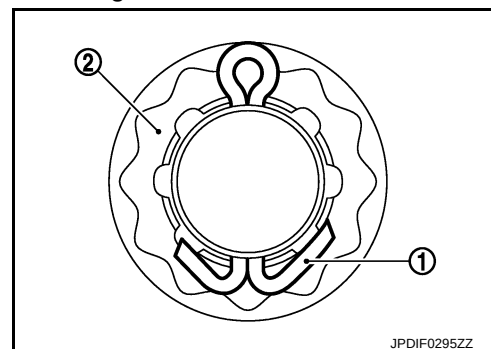
### NOTE:

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

- Align the matching marks that have been made during removal when reusing the disc rotor.
- When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

### CAUTION:

Never reuse cotter pin.



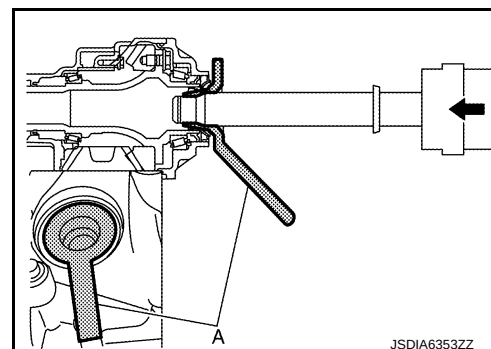
- Perform the final tightening of each of parts under unladen conditions, which were removed when removing wheel hub assembly and steering knuckle.
- Perform inspection after installation. Refer to [FAX-105, "AWD : Inspection"](#).

### Right Side

- Always replace transfer cover oil seal (inner) and transfer cover oil seal (outer) with new one when installing drive shaft. Refer to [DLN-94, "Removal and Installation"](#).
- Place the protector (A) [SST:KV38107900 ( — )] onto transfer assembly to prevent damage to the transfer cover oil seal (inner) and transfer cover oil seal (outer) while inserting drive shaft. Slide drive shaft sliding joint and tap with a hammer to install securely.

### CAUTION:

Never reuse transfer cover oil seal (inner) and transfer cover oil seal (outer).



- Tighten the bearing housing bolt to the specified torque. Refer to [FAX-93, "AWD : Exploded View"](#).
- Clean the matching surface of wheel hub lock nut and wheel hub assembly.

### CAUTION:

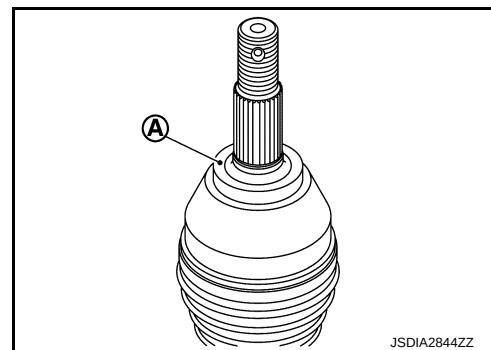
Never apply lubricating oil to these matching surface.

- Clean the matching surface of drive shaft and wheel hub assembly. And then apply paste [service parts (440037S000)] to surface (A) of joint sub-assembly of drive shaft.

### CAUTION:

Apply paste to cover entire flat surface of joint sub-assembly of drive shaft.

Amount paste : 1.0 – 3.0 g (0.04 – 0.10 oz)



- Use the following torque range for tightening the wheel hub lock nut.

## FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]



: 180 – 185 N·m (18.4 – 18.8 kg-m, 133 – 136 ft-lb)

### CAUTION:

- Since the drive shaft is assembled by press-fitting, use the tightening torque range for the wheel hub lock nut.
- Be sure to use torque wrench to tighten the wheel hub lock nut. Never use a power tool.
- Never reuse wheel hub lock nut.

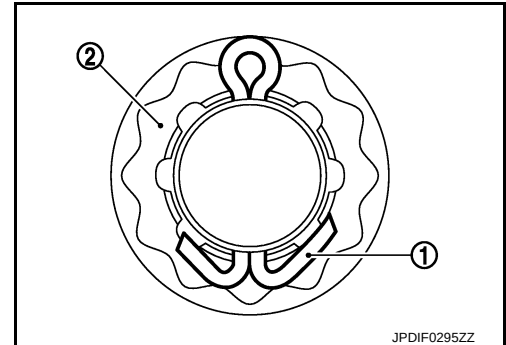
### NOTE:

Wheel hub lock nut tightening torque does not over torque for avoiding axle noise, and does not less than torque for avoiding looseness.

- Align the matching marks that have been made during removal when reusing the disc rotor.
- When installing a cotter pin (1) and adjusting cap (2), securely bend the basal portion to prevent rattles.

### CAUTION:

Never reuse cotter pin.



- Perform the final tightening of each of parts under unladen conditions, which were removed when removing wheel hub assembly and steering knuckle.
- Perform inspection after installation. Refer to [FAX-105, "AWD : Inspection"](#).

## AWD : Disassembly and Assembly

INFOID:0000000011675999

### DISASSEMBLY

#### Wheel Side

1. Fix shaft with a vise.

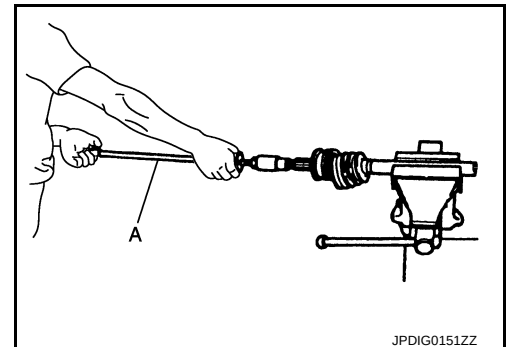
### CAUTION:

Protect shaft using aluminum or copper plates when fixing with a vise.

2. Remove boot bands, and then remove boot from joint sub-assembly.
3. Screw drive shaft puller (A) (commercial service tool) into joint sub-assembly screw part to a length of 30 mm (1.18 in) or more. Support drive shaft with one hand and pull out joint sub-assembly from shaft.

### CAUTION:

- Align drive shaft puller and drive shaft and remove them by pulling firmly and uniformly.
- If joint sub-assembly cannot be removed after five or more unsuccessful attempts, replace shaft and joint sub assembly as a set.



4. Remove circular clip from shaft.
5. Remove boot from shaft.

#### Transaxle Side (Left Drive Shaft)

1. Fix shaft with a vise.

### CAUTION:

Protect shaft using aluminum or copper plates when fixing with a vise.

2. Remove wheel side boot from joint sub-assembly. Refer to [FAX-73, "AWD : Removal and Installation"](#).
3. Remove dynamic damper as per the following instructions:
  - a. Remove damper band.

## FRONT DRIVE SHAFT

### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

- b. Remove dynamic damper from housing assembly.
4. Remove boot bands, then remove boot from housing assembly.
5. Remove circular clip from housing assembly.
6. Remove dust shield from housing assembly.

#### Transaxle Side (Right Drive Shaft)

1. Fix shaft with a vise.

#### **CAUTION:**

**Protect shaft using aluminum or copper plates when fixing with a vise.**

2. Remove wheel side boot from joint sub-assembly. Refer to [FAX-73, "AWD : Removal and Installation"](#).
3. Remove dynamic damper as per the following instructions:
  - a. Remove damper band.
  - b. Remove dynamic damper from housing assembly.
4. Remove boot bands, then remove boot from housing assembly.

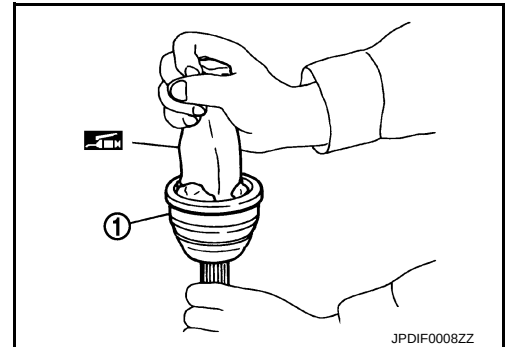
### ASSEMBLY

#### Wheel Side

1. Clean the old grease on joint sub-assembly with paper waste.
2. Fill serration slot joint sub-assembly (1) with NISSAN genuine grease or equivalent until the serration slot and ball groove become full to the brim.

#### **CAUTION:**

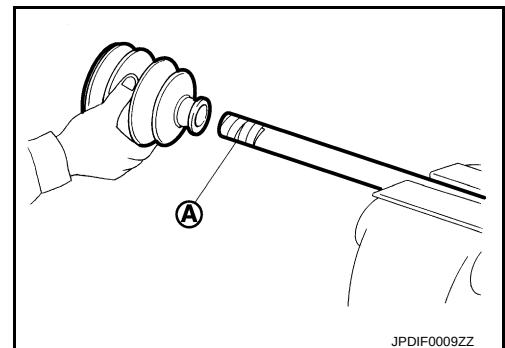
**After applying grease, use a paper waste to wipe off old grease that has oozed out.**



3. Install boot and boot bands to shaft.

#### **CAUTION:**

- Wrap serration on shaft with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



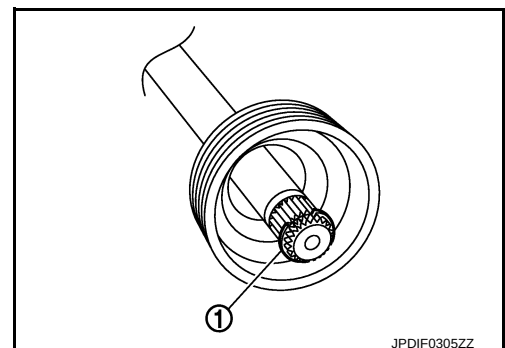
4. Remove the tape wrapped around the serration on shaft.
5. Position the circular clip (1) on groove at the shaft edge.

#### **CAUTION:**

**Never reuse circular clip.**

#### **NOTE:**

Drive joint inserter is recommended when installing circular clip.



## FRONT DRIVE SHAFT

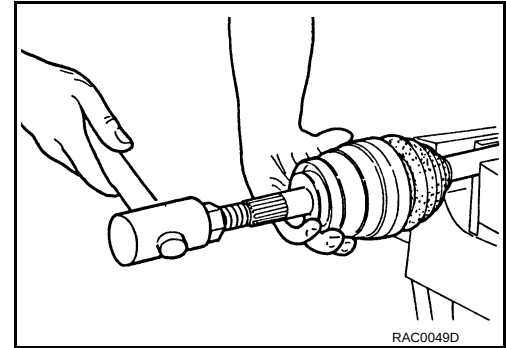
< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

6. Align both center axes of the shaft edge and joint sub-assembly. Then assemble shaft with joint sub-assembly holding circular clip.
7. Install joint sub-assembly to shaft using plastic hammer.

**CAUTION:**

- Check circular clip is properly positioned on groove of the joint sub-assembly.
- Confirm that joint sub-assembly is correctly engaged while rotating drive shaft.



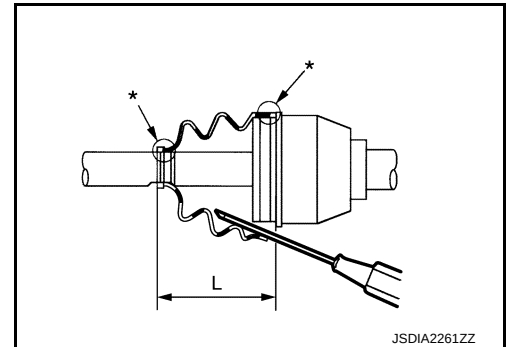
8. Apply the specified amount of grease into the boot inside from large diameter side of boot.

**Grease amount** : Refer to [FAX-106, "Drive Shaft"](#).

9. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or joint sub-assembly, boot may be removed. Remove all grease from the boot mounting surface.



10. To prevent the deformation of the boot, adjust the boot installation length (L) to the specified value shown below by inserting the suitable tool into inside of the boot from the large diameter side of the boot and discharging the inside air.

**L** : Refer to [FAX-106, "Drive Shaft"](#).

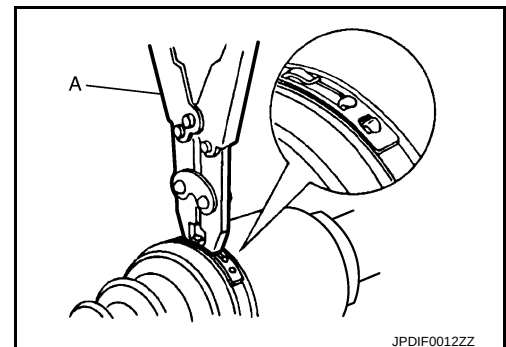
**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with a tip of tool.

11. Secure the large and small ends of the boot with boot bands using the boot band crimping tool (A) [SST:KV40107300 ( — )].

**CAUTION:**

- Never reuse boot band.



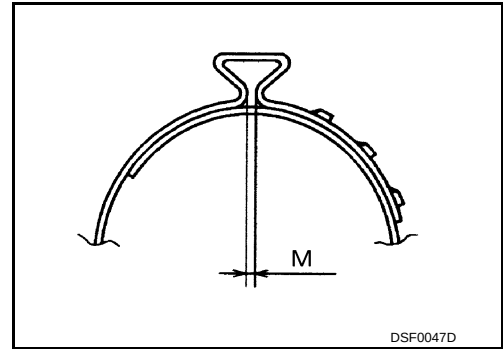
# FRONT DRIVE SHAFT

## < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

- Secure boot band so that dimension (M) meets the specification as shown in the figure.

**Dimension (M) : 2.0 – 3.0 mm (0.079 – 0.118 in)**



12. Check that displacement does not occur when boot is rotated with the joint sub-assembly and shaft fixed.

**CAUTION:**

- Reinstall them using boot bands when boot installation positions become incorrect.
- Never reuse boot band.

### Transaxle Side (Left Drive Shaft)

1. Clean the old grease on housing assembly with paper waste.
2. Install dust shield to housing assembly.

**CAUTION:**

**Never reuse dust shield.**

3. Install circular clip to housing.

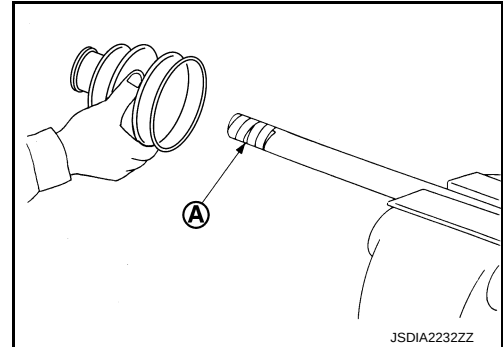
**CAUTION:**

**Never reuse circular clip.**

4. Install boot and boot bands to housing assembly.

**CAUTION:**

- Wrap serration on housing assembly with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



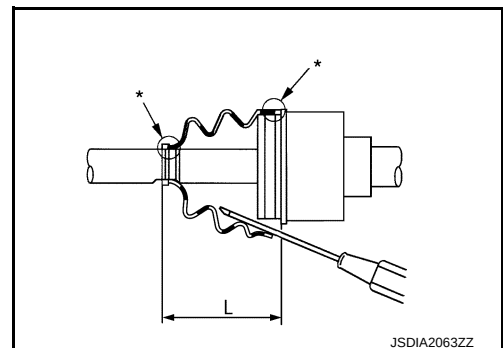
5. Remove the tape wrapped around the serration on shaft.
6. Apply NISSAN genuine grease (refer to parts catalog) to housing assembly.

**Grease amount : Refer to FAX-106, "Drive Shaft".**

7. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

**CAUTION:**

**If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or housing assembly, boot may be removed. Remove all grease from the boot mounting surface.**



8. To prevent the deformation of the boot, adjust the boot installation length to the value shown below (L) by inserting the suitable tool into the inside of boot from the large diameter side of boot and discharging inside air.

## FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

**L** : Refer to [FAX-106, "Drive Shaft"](#).

**CAUTION:**

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with the tip of tool.

9. Install boot bands securely.

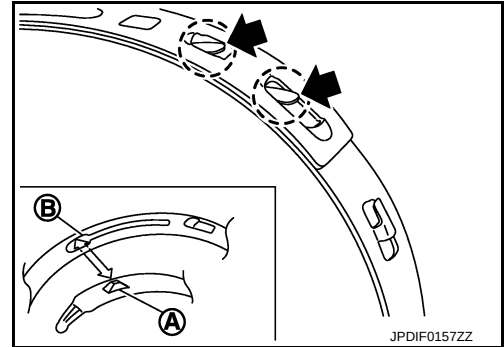
**CAUTION:**

**Never reuse boot bands.**

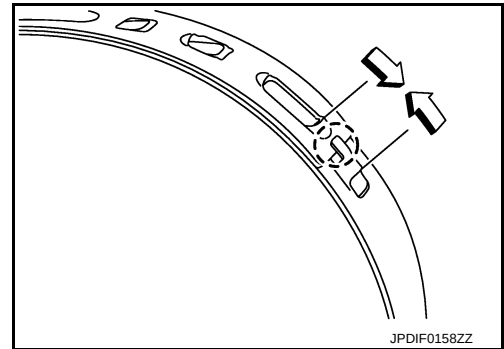
- a. Put boot band in the groove on drive shaft boot. Then fit pawls (➡) into holes to temporary installation.

**NOTE:**

For the large diameter side, fit projection (A) and guide slit (B) at first.



- b. Pinch projection on the band with suitable pliers to tighten band.  
c. Insert the tip of band into the lower part of pawl (marked with dotted circle) as shown in the figure.



10. Check that displacement does not occur when boot is rotated with the housing assembly fixed.

**CAUTION:**

- If displacement occurs, reinstall band.
- Never reuse boot band.

11. Install dynamic damper, follow the procedure described below.

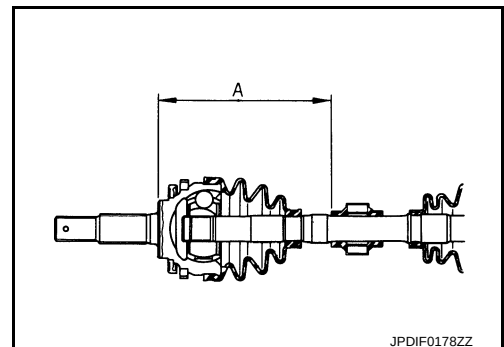
- a. Install dynamic damper to shaft.

- b. Secure dynamic damper with bands in the following specified position (A) when installing.

**CAUTION:**

**Never reuse boot bands.**

**A** : Refer to [FAX-106, "Drive Shaft"](#).

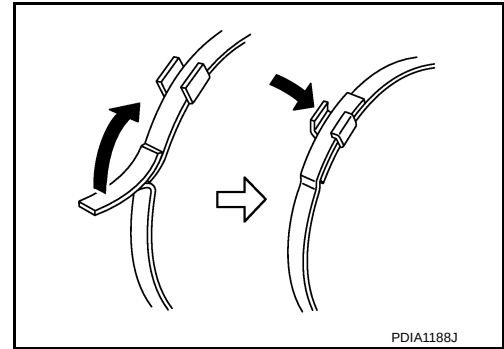


## FRONT DRIVE SHAFT

### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

- c. Install boot bands securely as shown in the figure.



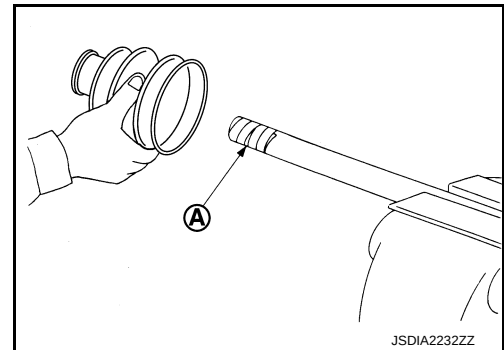
12. Install boot to the wheel side. Refer to [FAX-73, "AWD : Removal and Installation"](#).

#### Transaxle Side (Right Drive Shaft)

1. Clean the old grease on housing assembly with paper waste.
2. Install boot and boot bands to housing assembly.

#### CAUTION:

- Wrap serration on housing assembly with tape (A) to protect the boot from damage.
- Never reuse boot and boot band.



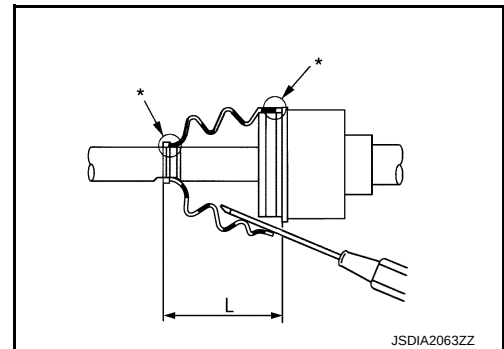
3. Remove the tape wrapped around the serration on shaft.
4. Apply NISSAN genuine grease (refer to parts catalog) to housing assembly.

**Grease amount** : Refer to [FAX-106, "Drive Shaft"](#).

5. Install the boot securely into grooves (indicated by "\*" marks) shown in the figure.

#### CAUTION:

If grease adheres to the boot mounting surface (indicated by "\*" marks) on the shaft or housing assembly, boot may be removed. Remove all grease from the boot mounting surface.



6. To prevent the deformation of the boot, adjust the boot installation length to the value shown below (L) by inserting the suitable tool into the inside of boot from the large diameter side of boot and discharging inside air.

**L** : Refer to [FAX-106, "Drive Shaft"](#).

#### CAUTION:

- If the boot installation length exceeds the standard, it may cause breakage of the boot.
- Be careful not to touch the inside of the boot with the tip of tool.

7. Install boot bands securely.

#### CAUTION:

Never reuse boot bands.

## FRONT DRIVE SHAFT

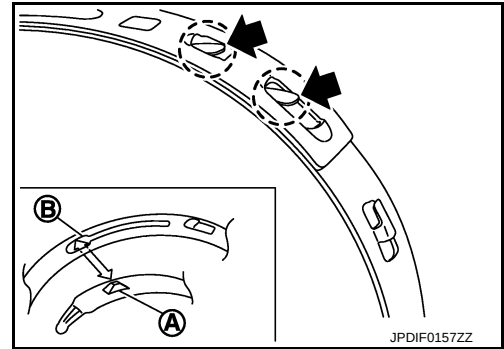
### < REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

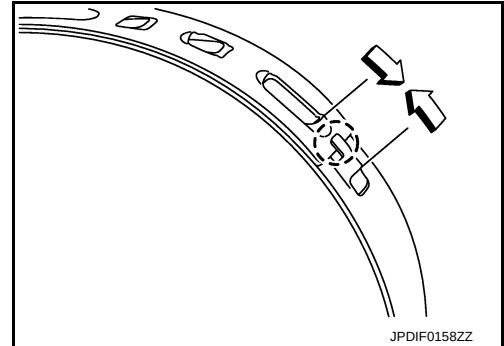
- a. Put boot band in the groove on drive shaft boot. Then fit pawls (➡) into holes to temporary installation.

**NOTE:**

For the large diameter side, fit projection (A) and guide slit (B) at first.



- b. Pinch projection on the band with suitable pliers to tighten band.  
c. Insert the tip of band into the lower part of pawl (marked with dotted circle) as shown in the figure.



8. Check that displacement does not occur when boot is rotated with the housing assembly fixed.

**CAUTION:**

- If displacement occurs, reinstall band.
- Never reuse boot band.

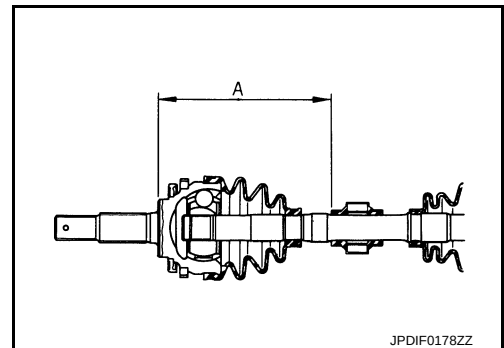
9. Install dynamic damper, follow the procedure described below.

- a. Install dynamic damper to shaft.  
b. Secure dynamic damper with bands in the following specified position (A) when installing.

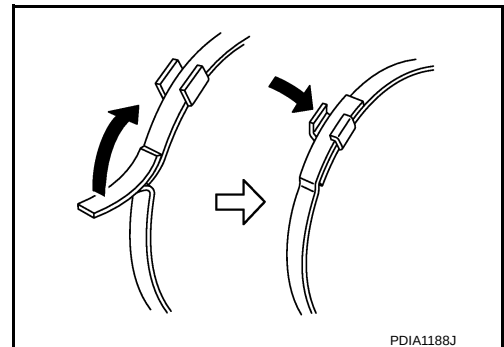
**CAUTION:**

Never reuse bands.

**A** : Refer to [FAX-106, "Drive Shaft"](#).



- c. Install boot bands securely as shown in the figure.



10. Install boot to the wheel side. Refer to [FAX-73, "AWD : Removal and Installation"](#).



# FRONT DRIVE SHAFT

< REMOVAL AND INSTALLATION >

[EXCEPT FOR NISMO RS]

## AWD : Inspection

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### INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer to [BRC-132. "FRONT WHEEL SENSOR : Exploded View"](#).
2. Check the wheel alignment. Refer to [FSU-7. "Inspection"](#).
3. Adjust neutral position of steering angle sensor. Refer to [BRC-62. "Work Procedure"](#).

A

B

C

FAX

E

F

G

H

I

J

K

L

M

N

O

P

## SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[EXCEPT FOR NISMO RS]

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Wheel Bearing

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| Item           | Standard                   |
|----------------|----------------------------|
| Axial end play | 0.05 mm (0.002 in) or less |

#### Drive Shaft

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#### 2WD

| Item                         |                | Standard                        |                                 |
|------------------------------|----------------|---------------------------------|---------------------------------|
|                              |                | Left side                       | Right side                      |
| Grease quantity              | Wheel side     | 115 – 125 g (4.06 – 4.40 oz)    |                                 |
|                              | Transaxle side | 132 – 142 g (4.66 – 5.00 oz)    |                                 |
| Boots installed length*      | Wheel side     | 97.1 mm (3.82 in)               |                                 |
|                              | Transaxle side | 85.0 mm (3.35 in)               |                                 |
| Dimension of dynamic damper* | M/T models     | 267 – 273 mm (10.51 – 10.75 in) | 257 – 263 mm (10.12 – 10.35 in) |
|                              | CVT models     | 267 – 273 mm (10.51 – 10.75 in) |                                 |

\*: For measuring position, refer to [FAX-84, "2WD : Disassembly and Assembly"](#).

#### AWD

| Item                         |                | Standard                        |
|------------------------------|----------------|---------------------------------|
| Grease quantity              | Wheel side     | 88 – 108 g (3.10 – 3.80 oz)     |
|                              | Transaxle side | 126 – 136 g (4.45 – 4.79 oz)    |
| Boots installed length*      | Wheel side     | 94.8 mm (3.73 in)               |
|                              | Transaxle side | 93.8 mm (3.69 in)               |
| Dimension of dynamic damper* |                | 267 – 273 mm (10.51 – 10.75 in) |

\*: For measuring position, refer to [FAX-98, "AWD : Disassembly and Assembly"](#).