Adjusting brake pedal

Adjustment

1. Loosen the lock nut in the push rod cover, and insert the brake pedal in reverse sequence of removal.

Removal

1. Remove the return spring.
2. Remove the return spring pin (①). From the push rod, and remove the pedal from the master rod.
3. Remove the debris pin (②).

Description

Tighten to 2.5 to 4.0 KN·m (22.7 to 28.9 ft·lb).

Be sure to tighten the return spring under tightening.

C-1034 (with multiple use grease (oil) C-2108 of pin and multi-fit grease).

Be sure to fill the pedal bushing with new grease, and check that the following items are correct or replace if needed.

Inspect the brake pedal for the following items, and correct or replace as needed.

- Pedal arm for twisting, bending, and/or cracking
- pedal bushing and seal for wear, deformation
- Seals or replace if needed

Check the brake pedal for the following items, and correct or replace as needed.

- Pedal arm for twisting, bending, and/or cracking
- Pedal bushing and seal for wear, deformation
- Seals or replace if needed

The brake pedal is installed on the bracket which also supports the steering column, and the brake pedal is set at the center of the steering column with the master cylinder. The hand brake is actuated by the control lever from the center, and the brake pedal is of a mechanical type, which actuates the brake by alternating between the control lever and the master cylinder.

The brake pedal is installed on the front of the car, and a block is equipped to adjust the brake force for front and rear.

The 2J-series vehicles are installed with a brake force adjuster. If the brake pedal is too stiff, the brake pedal will not move smoothly and may also be used in an NISSAN suspension, and it may also be used on a vehicle with a different suspension. The brake pedal force is applied to the front wheel and is equal to the rear wheel force, and is actuated by the control lever through the brake pedal. When the brake pedal is actuated, the brake shoes move away from the drum, which allows the drum to rotate. In order to get enough braking, the brake pedal is equipped with two positions, and the brake pedal is actuated when two positions.
The brake system adopts a tandem type master cylinder. Even the front or rear hydraulic circuit fails into another, the disk brake is used, and for the front wheels, the disc brake is used, and a trouble, sufficient braking force can be obtained by a simple method. The master cylinder is made of brass, and the piston is made of sintered bronze.

Note: Install the stop lamp switch so that the instrument panel is fully visible.
Condition: Replace as required.

1. Check the cylinder and piston for damage and wear. On the sliding surface and for other defects

2. Replace if the cylinder and piston clearance is more than 0.15 mm (0.006 in).

Note: Do not remove the fluid reservoir

The sliding surface of the piston and piston cup are not damaged.

Note: Disassemble the master cylinder carefully so that the check valve will not be damaged. Remove the cap screw and remove the

3. Check valve.

零部件 (零件号参考图 BR-5)

1. Disassemble the primary, secondary piston assembly, and other

2. Remove the snap ring, and remove the primary

3. Drain brake fluid and remove stopper bolts # and #

Remove the master cylinder from the master架.

1. Disconnect the brake lines from the master cylinder.

2. Remove the master cylinder mounting nuts, and

3. Remove the master cylinder from the master cylinder.

FIG. BR-6 Cross-sectional view of master cylinder
Figure B.6.7 - Brake Line

1. Brake line is a double-layer steel pipe to protect the rear wheels from locking during rapid proportional valve in front of the 3-way connector so is equipped with the rear wheel side cylinder. An indicator light is equipped for trouble diagnosis in brake line. In case of misalignment or cylinder omission to the front and rear wheels, the brake lines are branched from the lamp on the master cylinder to the master cylinder in reverse sequence of the cylinder.

**Brake Line**

Refer to the paragraph pedal displacement. Leave out the cylinder. After air bleeding, make sure that no brake fluid escaped. 

**Reinstallation**

8 to 9 kgf-m (5.8 to 6.5 lbf-ft)

- Valve cap
- 0.4 to 0.5 kgf (9.3 to 11.6 lbf)
- Stopper screw

**Troubleshooting**

- Cup, etc. apply rubber glue slightly.
- Apply brake fluid to the master cylinder to the right.
- Reassemble, note the following matters.

**Disassembly**

5. Remove others if damaged, deformed, or deformed.

Length x Front-to-Rear (Length) - Standard values (Free deformation condition)

4. Check the return springs for wear, damage and other weaknesses, or replacement.

3. In principle replace the piston cup, packing and

**BRACE**

BR-5
1. When pressure is applied (under split point)  

**Operation**

**Fig. 6.10** Plunger and seal operation when pressure is applied (under split point)

Spring and friction forces

Cross-sectional area of diameter D₂

Cross-sectional area of diameter D₁

Rear wheel cylinder oil pressure

Master cylinder oil pressure

To ensure correct and smooth braking performance.

1. Place the part on the brake line installation, be sure to block the air intake and suspension components.

2. Do not lift the brake line installation. All parts must be correctly aligned to prevent any leaks. Be careful not to wrap or twist the brake hose, and provide sufficient space between the brake hoses and other parts. Install them properly.

3. Upon completion of the brake line installation, be sure to block the air intake and suspension components.

4. Pay attention to the following matters when installing the brake line:

   - Leaks from the joint, tighten or replace.
   - Leaks from the joint, tighten or replace.
   - Leaks from the joint, tighten or replace.

   Pay attention to the following matters when installing the brake line:

   - Leaks from the joint, tighten or replace.
   - Leaks from the joint, tighten or replace.
   - Leaks from the joint, tighten or replace.

**Chassis**

**Fig. 6.9** Cross-sectional view of proportioning valve

```
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>Plunger</td>
<td>Seal</td>
<td>Spring</td>
<td>Push rod seal</td>
</tr>
</tbody>
</table>
```

**Propportioning Valve**
When pressure side pressure drops no more,
the wheel cylinder side pressure is reduced
also on this situation. But on the wheel
condition of equation (3) the wheel
cylinder side pressure is reduced also
and 3. When 4. When reas:ing
When master cylinder side pressure is reduced, the

3. When reas:ing

\[ \frac{V_2}{V_1} = \frac{V_2}{V_1} \]

\[ \text{Reducing Ratio} \]

Thus, real opening and closing are repeated.
progresses are described under the following equation
and reading. The master cylinder rises and lowers so that
4. When pressure is applied (over split point)
the pressure rises. The master cylinder rises, the seal is
left. When pressure is applied, the seal

2. When pressure is applied (over split point)

\[ P = \frac{P_1}{V_1} \]

Consequently, all pressure at the split point is

\[ P = P_1 \]

force \( P \) and hence, all pressure in the master cylinder side

FR-11 Plunger and seal operation when releasing

FR-12 Plunger and seal operation when releasing

FR-13 Plunger and seal operation when releasing
Fig. BR-14 Sectional view of warning light switch

Assembly:
Any reason Replace complete switch
Do not attempt to repair switch for

Check the warning light switch assembly for a proper operation. Check the switch for breaks in the rubber pad and bleed the brakes.

The hydraulic brake system must then be corrected by pumping the brake pedal to the floor, and the switch in the warning light assembly to the full position. The warning light will light up when the brake fluid pressure in the brake system is lower than the pressure required by the switch to light up the brake light.

A remotely mounted warning light switch is located on the instrument panel near the brake pedal. When a pressure difference of 1.3 to 1.7 kgs/cm² (18 to 242 lb/lq/in) exists between the front and rear brake systems, the front brake system will be illuminated. When a pressure difference exists between the front and rear brake systems, the warning light switch is illuminated.

Brake Line Pressure

Differential Warning Light Switch

CAUTION

Inspect the proportioning valve every two years or

When installing the brake line be sure to face the

Note: Proportioning valve for 300 Indicate the part No.

Performance differs be careful not to mix up.

1. Appearance of proportioning valve for 300 series is

easy to note the following matters:

Removing the installation bolts. When removing the proportioning valve, the proportioning valve can be removed easily by

Removal and Reinstallation

Locked before the front wheels.

1. Proportioning valve is easily if the rear wheels are

Front and rear wheels are locked simultaneously at front

2. The proportioning valve is secured (normal) when

Vehicle speed of 50 km/h (31 MPH) at the vehicle on dry concrete road and quickly brake at

When the vehicle is locked with one person (driver), drive

The inspection and replace the valve as an assembly.

50 000 km (30 000 miles) in accordance with the following-

Inspect the proportioning valve every two years or
Figure BR-15: Front Disc Brake

1. Dust cover
2. Piston R.H.
3. Piston L.H.
4. Retaining ring
5. Piston seal
6. Cap screw assembly
7. Pinion seal
8. Anil speed shim L.H.
9. Anil speed shim R.H.
10. Pinion
11. Retaining pin
12. Cap screw hub bolt
13. Cap screw
14. Brake plate

Inscribed behind the pad.
Moreover, in order to prevent brake squealing, a shim is inserted between the pad.
Adjusted simultaneously.

Contents

Front Disc Brake
1. Remove the pad.

Removal

Clean stainless steel disassembly

Note: the components should be managed under
instructions. It should be
not removed properly. Replace the piston seal with new one
If leakage occurs from the piston with pad does

Replacing Piston Seal

Special holes so as to settle down the pad in its position.
4. When the pad is installed, depress the brake pedal

Roto Forward Raising direction

Note: Install the shim so that the arrow mark is met the

spread springs and retaining pin, and secure them with clip.
2. Install pad and anti-skid pad assemble the anti-

Installing the brake to release brake fluid:

Removal: Raising + Raising be extended out by
Note: Note that brake fluid may overflow from the

can be installed.
2. Depress the piston into the cylinder so that new pad

on the rotor

Note: Do not use mineral oil. Be careful not to apply oil

1. Clean the calipers and piston pad insulating parts.

Inspection

made periodically.

Before after. Raising + Raising position of pads be
meet at any one position may cause uneven
Note: Raising + Raising pads to replace as set + replace-

Thickness is less than 7.5 mm (0.2953 in)
2. When total pad

mm (0.035 in) replace. (Replace, when total pad

Thickness is less than 2

Replace the pad with a new one.

or when deformed or deformed due to overheating.
2. When oil and/or grease is heavily stuck on the pad,

1. Clean the pad with carbon tetrahydro ide or gasoline.
Cylinder, assemble the mottle side in the same manner.

3. After reassembly is completed, check for any damaged rubber seal in the piston sliding unit.

Note: When installing the piston, apply brake fluid to the cylinder. Clamp the dust seal with the retaining ring.

2. Install dust seal on the piston and the piston into the cylinder.

1. Install the piston seal carefully so that the seal is not damaged.

Reassembly:

Damage is minor:

- The seal is not damaged after retraction. For this reason, replace the dust seal only. Replace the piston seal, if necessary.
- Whenever possible, replace both seals and dust seals whenever servicing, do not use paper.
- Replace the brake fluid when the piston slides.

Note: The piston sliding surface is plated. Thus, although the piston sliding surface is plated, it should not be used for any work, damaged, and/or rusted.

3. Piston

2. Pad

Check for frayed or chipped edge replace.

Note: If the cylinder wall is not damaged, it should not be deformed. If rusted, they will be deformed.

Note: When cleaning rubber parts, use alcohol or brake fluid, and remove the caliper assembly from the brake pads.
ADJUSTING FRONT BRAKE

Wear limit: 10.5 mm (0.413 in)
Standard thickness: 12.5 mm (0.492 in)

1. Check thickness does not exceed the limit.

2. Measure thickness toward the entire perimeter on the brake pads.

3. Total: 0.07 mm (0.0028 in)
Less than 0.05 mm (0.002 in)
Parallelism (when new):

INSPECTING ROTOR

Removing the caliper assembly, check the rotor for:

1. Deflection
2. Parallelism

If deflection and parallelism exceed specification, replace rotor.

DISASSEMBLING CALIPERS

7.3 to 9.9 kgf (16.3 to 21.9 lb)
Caliper pistons pull

If brake fluid leaks from the brake fluid seal, replace a new seal.

Do not remove the bridge bolt.

Reassembly:

Be sure to replace the calipers as an assembly.

Be sure to replace the calipers as an assembly.

If the caliper is installed, bleed the hydraulic line.

Reset the calipers after the removal of the caliper assembly.

CLASS
Fig. DR.22 Rear Brake

Contents

Rear Brake

Adjusting Rear Brake

Disassembly and Inspection

Removal

Replacing Brake Shoe
REPLACING BRAKE SHOE

Removal

1. Jack up the vehicle, support it with a stand, and remove the tire.

2. Remove the brake drum. When it is hard to remove the brake drum, the following instructions apply:
   (1) Remove the adjust lever from the adjust wheel with a screwdriver.
   (2) Remove the brake drum adjust hole plug, and disconnect the hand brake wire.

3. Adjust the brake drum clearance between the brake shoe and brake drum.
Note: Be careful not to allow grease sticking on the brake shoe lining.

1. Apply brake grease to the adjuster wheel and threaded position and sliding portion (indicated by arrow mark) of the adjuster screw sufficiently.

2. Remove the anti-falling spring and remove the brake shoe together with the adjuster wheel.

3. Turn the adjuster wheel downward with a screwdriver.

Before installing the brake shoe, check the brake wheel cylinder for operating and sliding condition and disassemble for performance of the brake shoe lining with the mark on the brake shoe.

Ensure the brake shoe lining be sure to match the new brake shoe lining, return spring and anti-falling spring.

Fig. BR-27 Applying brake grease

Fig. BR-28 Adjust wheel
DISASSEMBLY AND INSPECTION

1. Jack up the vehicle, and remove the left front wheel and brake drum.

2. Remove the brake inlet and dust cover (①) from the wheel cylinder.

3. Remove the brake fluid reservoir cap (②).

4. When removing the brake disc, withdraw the axle block.

5. Remove the master cylinder installation nuts from the caliper.

6. Insert the adjuster hole plug. Depress the plug head in from the adjuster wheel claw.

7. Remove the hand brake wire to the wheel cylinder.

8. Adjust the hand brake and adjuster clearance.

9. Adjust the wheel cylinder, adjust the brake shoe and pedal travel, and adjust the brake shoe and wheel cylinder.

10. Remove the brake shoe to the brake drum.

11. Insert the brake drum, insert a socket wrench from the wheel cylinder, and remove the master cylinder installation nut.

12. Remove the brake shoe and dust cover (②) from the wheel cylinder.

13. Install the dust cover (①) and brake inlet, and the left front wheel and brake drum.
Reassembly and Restoration

1. When assembling the wheel cylinder, be sure to apply anti-seize to the piston cup and other upper parts.

2. When reassembling the brake shoe, be sure to apply a suitable lubricant to the contact surfaces.

3. Replace the brake shoe lining if less than 1.5 mm (0.059 in) thick.

4. Replace the brake shoe lining if cracked, chipped, or worn.

5. When the brake shoe lining surface is uneven, wear, damage, or scored, replace.

6. Replace the brake shoe if the brake shoe lining is less than 4.7 mm (0.185 in).

7. When reassembling with grease or oil, clean all of the contact surfaces, and add the suitable lubricant.

8. Repeat steps 1-7 until a smooth, even, and consistent surface is achieved.

<table>
<thead>
<tr>
<th>Inspection</th>
<th>Replacement Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fig. BR-31 Wheel Cylinder Component Parts</td>
<td></td>
</tr>
</tbody>
</table>

- Adjust screw
- Adjust wheel
- Wheel cylinder
- Piston cup
- Piston
- Piston cup seal
- Piston return spring
- Wheel cylinder lever
- Base cover
- Releasable shim

Return Spring

1. Check the return spring for wear, damage, or crack.

2. When the adjust wheel and/or adjust lever is damaged, replace.

3. Replace as required.

4. Inspect for the master cylinder.
The hand brake linkage is in the floor corner. Hence, removal and other operations must be done after re-moving the propeller shaft.

Contents

Hand Brake

Adjusting Rear Brake

1. Re-8 to 12 kg-m (10.7 to 13.0 ft-lb) tightening torque.
2. Make sure the sliding resistance is within range 2 to 7 kgf (44.0 to 15.32 lb).
3. Measure the wheel cylinder sliding resistance without applying brake grease to the cylinder, disc, and adjust plate.
4. When installing the wheel cylinder to the brake disc, apply brake grease to the cylinder, disc, and adjust plate.
2. Remove the hanger spring and clevis pin.

I. Remove the lock nut and adjust nut from the rear.

Removal
control lever retained.

Note: Be sure to perform this adjustment with the unit on the front rod, and reduce the linkage play with the adjuster (0.492 in.) and reduce the handle plate to 11.5 to 12.5 mm (0.445 in.) and adjust the center pin hole center distance between the wheel cylinder lower pin hole center.

2. Adjust the hand brake. First, make sure that the adjustments are made when the hand brake is adjusted properly.

3. 7. Remove the control lever's two nuts with four bolts, and remove the control lever's two nuts by means of the hand brake from the front of the door.

4. Remove the door panel by means of the door panel from the door.

5. Remove the control lever's two nuts with four bolts (shown in Fig. 12-3).
FIG: BK-28 Cross-sectional view of Master-Vac

Contents

Master-Vac

Brake
Note: When a replacement is required, be sure to replace the Master-Vac as an assembly.

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Possible Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Faulty check valve seal</td>
<td>4. Faulty air-light on poppet assembly seal</td>
</tr>
<tr>
<td>2. Damaged diaphragm</td>
<td>3. Drop-off on reaction disc</td>
</tr>
<tr>
<td>5. Damaged pipe of faulty joint air-light</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conceive action</th>
<th>Conceive action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Faulty check valve seal</td>
<td>4. Faulty air-light on poppet assembly seal</td>
</tr>
<tr>
<td>2. Faulty push rod seal air-light</td>
<td>3. Drop-off on reaction disc</td>
</tr>
<tr>
<td>5. Damaged pipe of faulty joint air-light</td>
<td></td>
</tr>
</tbody>
</table>

and pressure drops more than 75 mmHg (0.984 in Hg).

When 15 seconds are elapsed after stopping the engine by applying full braking force,

more than 75 mmHg (0.984 in Hg).

When 15 seconds are elapsed after stopping the engine without braking and pressure drops

### Fig. BR-41 Installing vacuum gauge

1. Install a vacuum gauge between the check valve and Master-Vac.

2. Increase engine speed, and stop the engine when the vacuum gauge indicates 300 mmHg (19.7 in Hg).

### Fig. BR-40 Repair Kit B

Inspecting vacuum pressure
1. Remove the clip (indicated by arrow mark) and remove the check valve.

2. Disconnect the hose from both ends of the check valve.

3. When pressure is applied to the check valve, the check valve and the valve does not open. Replace the check valve with a new one.

4. When the check valve is removed, apply vacuum pressure of 500 mm (19.7") in Hg to the master-vee side of the check valve.

5. Install new master cylinder against nuts and remove the master-vee.

6. Disconnect the vacuum hose from the master-vee.

7. Disconnect the brake line from the master cylinder. The brake pedal will drop with the master cylinder and disconnect the master-vee from the check valve.

8. Remove the dust cap and remove the master-vee.

9. Remove the check valve body, check out for residue and disassemble.
1. Disassemble in the sequence shown below:
2. Disassemble the diaphragm plate assembly.
3. Remove the valve body and diaphragm plate.
4. Remove the push rod from the diaphragm plate.
5. Detach the valve body and diaphragm from the rear shell.
6. Pull out the diaphragm from the groove of the rear shell and rear assembly. Then, the diaphragm piece is assemble.
7. Detach the rear shell and seal assembly.

Note: When the valve body and diaphragm plate are drop them while disassembling the master-vec.
Fig. 8R-25 Inserting stop key

1. Remove the nut and flange.
2. Insert the valve operating rod assembly correctly.

Note: Grease is contained in the repair kit.

Fig. 8R-25 Removing valve operating rod and assembly

1. Push out the reaction disc from the valve body side.
2. Disassemble the front shell and stud assembly.

Fig. 8R-30-1 Disassembly of the diaphragm and diaphragm plate

1. Apply silicon grease thinly to the following.
   - Plate: edge connecting with the diaphragm plate
   - Front shell and the front rod
   - Rear shell and rear rod
   - Edge connecting with front and rear
   - Reading disc: both rear and poppet
   - Poppet: lip
   - Rear seal assembly
   - Seal: lip and rear connecting with the rear shell

Assembly and adjustment

1. Apply silicon grease thinly to the following.
   - Front shell and the front rod
   - Rear shell and rear rod
   - Edge connecting with front and rear
   - Reading disc: both rear and poppet
   - Poppet: lip
   - Rear seal assembly
   - Seal: lip and rear connecting with the rear shell

2. Check components.
   - If abnormal conditions are found, replace them with new ones.

3. Check the poppet assembly.
   - If wear or abnormal conditions are found, replace it as necessary.

Inspection

1. Remove the plate and seal assembly.

Note: Do not impale or otherwise damage the valve body.
### Service Journal or Bulletin Reference

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<thead>
<tr>
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<th>PAGE NO.</th>
<th>DATE</th>
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</tbody>
</table>

**Restoration**

push rod end is 3.5 to 4.0 mm (0.1377 to 0.1575 in.)

and below so that depth from the surface is to the

4. Upon completion of the assembly, adjust push rod

**FIG. BR-54** Adjusting push rod length

---

**FIG. BR-53** Fishing retainer

---

**Note:** When adjusting the depth, face the push rod and

into the master vac.

updated so that the reaction disc is not dropped off.

surface comes into contact with the bottom.

completely down to such an extent that the tool handle

press the tool (special tool ST08860000) and fill it

3. When installing the retainer on the rear shield, use the
<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friction material</td>
<td>331 cm² (13.02 sq in)</td>
</tr>
<tr>
<td>Pad material</td>
<td>16 1.6 cm² (25.0 sq in)</td>
</tr>
<tr>
<td>Pad material (Front)</td>
<td>N/A</td>
</tr>
<tr>
<td>Pad material (Rear)</td>
<td>N/A</td>
</tr>
<tr>
<td>Pad size (Front)</td>
<td>31.5 x 10 x 78.4 mm (2.032 x 0.394 x 3.087 in)</td>
</tr>
<tr>
<td>Pad size (Rear)</td>
<td>40 x 4.1 x 21.5 mm (1.575 x 0.161 x 0.849 in)</td>
</tr>
<tr>
<td>Line dimension</td>
<td></td>
</tr>
<tr>
<td>Line of actuating point in thickness</td>
<td>105.5 mm (4.13 in)</td>
</tr>
<tr>
<td>Less than 0.15 mm (0.0005 in)</td>
<td>229.6 mm (9.04 in)</td>
</tr>
<tr>
<td>Less than 0.05 mm (0.002 in)</td>
<td>271 mm (10.67 in)</td>
</tr>
<tr>
<td>Front brake inner dia.</td>
<td>228.6 mm (9 in)</td>
</tr>
<tr>
<td>Brake drum and rotor</td>
<td></td>
</tr>
<tr>
<td>Rear wheel cylinder slipping resistance</td>
<td>210.7 Kg (4.49 to 15.4 lb)</td>
</tr>
<tr>
<td>0.15 mm (0.0059 in)</td>
<td>22.22 mm (7/8 in)</td>
</tr>
<tr>
<td>0.38 mm (1/8 in)</td>
<td>37.58 mm (1.48 in)</td>
</tr>
<tr>
<td>Cylinder wall and piston</td>
<td>Allowable max clearance between front cylinder</td>
</tr>
<tr>
<td>22.22 mm (7/8 in)</td>
<td>40 mm (1.57 in)</td>
</tr>
<tr>
<td>Inner dia. of master cylinder</td>
<td>203 mm (8.00 in)</td>
</tr>
<tr>
<td>Pedal free travel</td>
<td></td>
</tr>
<tr>
<td>Brake pedal</td>
<td></td>
</tr>
<tr>
<td>Service Data and Specifications</td>
<td></td>
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</tbody>
</table>
### Trouble Diagnoses and Corrections

<table>
<thead>
<tr>
<th>Possible Cause</th>
<th>Component Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak return spring</td>
<td>Replace defective spring.</td>
</tr>
<tr>
<td>No compression takes place</td>
<td>Replace master cylinder.</td>
</tr>
<tr>
<td>Clamped master port</td>
<td>Clean and bleed the system.</td>
</tr>
<tr>
<td>Seized pedal shaft</td>
<td>Clean and bleed the system.</td>
</tr>
</tbody>
</table>
| Defective bore of seals | Replace master cylinder due to hill-
| Infections of water through rear and due to | seal. |
| Seized master cylinder due to hill-
| Seizure or valve stuck locked by deposits or |冽. |
| Foreign matter, etc. | Replace master cylinder seals due to poor |
| Pistons or valve stuck locked by deposits or | |
| Seizure or mineral oil | |
| Fluid quality or contamination by ketone. | |
| Swollen master cylinder seals due to poor | |
| System cleanliness. | |

### Chassis

- Spindle nut: 2.5 to 3.0 kgf (18.1 to 21.7 lbf)
- Valve cap: 8.10 to 9.5 kgf (57.9 to 65.1 lbf)
- Master cylinder stopper screw: 0.4 to 0.5 kgf (2.9 to 3.6 lbf)
- Anchor block installation nut: 1.4 to 1.8 kgf (10.1 to 13.0 lbf)
- Disc to housing housing: 2.7 to 3.7 kgf (59.5 to 26.8 lbf)
- Caliper to knuckle hinge: 7.3 to 9.9 kgf (52.8 to 71.5 lbf)
- Rotor aligning bolts: 3.9 to 5.3 kgf (28.2 to 38.3 lbf)
- Connection of brake tube: 1.5 to 1.8 kgf (10.9 to 13.0 lbf)
<table>
<thead>
<tr>
<th>Problem Description</th>
<th>Possible Causes</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleeding</td>
<td>- Suction in brake lines or hoses</td>
<td>- Check brake line connections, and if necessary, tighten connections. - Replace any damaged brake lines and bleed the system.</td>
</tr>
<tr>
<td>Pedal feels under pressure</td>
<td>- Faded brake pads</td>
<td>- Replace brake pads. - Check for worn or damaged brake pads.</td>
</tr>
<tr>
<td>Pedal feels spongy</td>
<td>- Low fluid level in reservoir</td>
<td>- Check fluid level in reservoir. - Add specified fluid up to correct level.</td>
</tr>
<tr>
<td>Pedal does not return after release</td>
<td>- Air in brake lines</td>
<td>- Bleed the system. - Replace the bleeder cap.</td>
</tr>
<tr>
<td>Pedal feels mushy</td>
<td>- Fluid has contaminants</td>
<td>- Change brake fluid. - Bleed the system.</td>
</tr>
<tr>
<td>Pedal feels firm</td>
<td>- Fluid has contaminants</td>
<td>- Change brake fluid. - Bleed the system.</td>
</tr>
<tr>
<td>Pedal feels mushy</td>
<td>- Fluid temperature is too low</td>
<td>- Change brake fluid. - Bleed the system.</td>
</tr>
<tr>
<td>Pedal feels mushy due to poor fluid quality</td>
<td>- Fluid has contaminants</td>
<td>- Change brake fluid. - Bleed the system.</td>
</tr>
<tr>
<td>Pedal feels mushy due to low pressure</td>
<td>- Fluid has contaminants</td>
<td>- Change brake fluid. - Bleed the system.</td>
</tr>
<tr>
<td>Pedal feels mushy due to low pressure</td>
<td>- Fluid has contaminants</td>
<td>- Change brake fluid. - Bleed the system.</td>
</tr>
<tr>
<td>Pedal feels mushy due to low pressure</td>
<td>- Fluid has contaminants</td>
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</tr>
<tr>
<td>Pedal feels mushy due to low pressure</td>
<td>- Fluid has contaminants</td>
<td>- Change brake fluid. - Bleed the system.</td>
</tr>
</tbody>
</table>

**BRake**
<table>
<thead>
<tr>
<th>CHASSIS</th>
<th>Brakes</th>
<th>Chassis and suspension</th>
<th>Chassis and suspension components</th>
<th>Chassis and suspension components types</th>
<th>Chassis and suspension components types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improper brake shoe return.</td>
<td>Clogged master cylinder relief port.</td>
<td>Fluid leakage at one wheel cylinder only.</td>
<td>Rust or corroded edges of a wheel cylinder.</td>
<td>Seized piston in wheel cylinder or caliper assembly.</td>
<td>Hose obstructed due to swollen or clogged inner lining.</td>
</tr>
<tr>
<td>Unbalanced brakes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake linings dragging all the time on drums or brake discs.</td>
<td>Weak shoe return springs.</td>
<td>Brake pedal has no free travel.</td>
<td>Seized master cylinder piston.</td>
<td>Master cylinder flooded due to clogged relief port.</td>
<td>Brake drum-out.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak brakes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHASSIS</th>
<th>Brakes</th>
<th>Chassis and suspension</th>
<th>Chassis and suspension components</th>
<th>Chassis and suspension components types</th>
<th>Chassis and suspension components types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grease brake shoe and wheel cylinder sliding surface.</td>
<td>Clean and bleed the system.</td>
<td>Fluid clean or replace the brake shoe linings or lining pads, service the wheel cylinder and bleed the system.</td>
<td>Eliminate rust and replace the boots.</td>
<td>Replace the wheel cylinder, replace the rear wheel cylinder piston or caliper assembly and bleed the system.</td>
<td>Replace or clean the hose and bleed the system.</td>
</tr>
</tbody>
</table>
### BRAKE

**Service Journal or Bulletin Reference**

- Correct drums by means of a lathe.
- Check springs and replace as required.
- Remove and clean drum thoroughly.
  - Fill the system and refill with specified fluid.
  - Air the system and prime with specified fluid. 
  - Replace all rubber hoses.
  - Clean or replace poppet rubber. Repeat if necessary.
  - Check the drum for loose. If a hill or check the drum for loose. If a hill or
  - Check the pipe or hose connection, and
  - Vacuum the hose. If necessary, or replace a defective vacuum hose. 
  - If improper master, use function due to poor vacuum. 
  - Follows:
    - Master-Vac.
  - This trouble mainly resulting from improper…
<table>
<thead>
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<th>Date</th>
</tr>
</thead>
</table>

Service Journal or Bulletin Reference

CHASSIS
When the valve caps are removed, be sure to reinstall them.

If the tires are cold, note the cold tire pressure.

Inflation of tires

**PERIODICAL SERVICES**

<table>
<thead>
<tr>
<th>Pressure (To be measured when the tires are cold)</th>
<th>14.94%</th>
<th>14.94%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 160 kPH (100 MPH)</td>
<td>165 HR-44 (Tublesse)</td>
<td>HS300-J</td>
</tr>
<tr>
<td>Under 160 kPH (100 MPH)</td>
<td>175 HR-44 (Tublesse)</td>
<td>HS430-U</td>
</tr>
</tbody>
</table>

The size of the tires should be checked for proper pressure on a monthly basis or more frequently depending on driving conditions. When driving at speeds above 160 km/h (100 mph), reduce driving speed to avoid damage to the tires.

The disc wheel diameter is 14.3 mm (0.45 in). The hub bolt hole pitch is 15 mm (0.59 in). Wheel off set. The hub bolt hole pitch.

**DESCRIPTION**

<table>
<thead>
<tr>
<th>M1.2</th>
<th>M1.1</th>
<th>M1.0</th>
<th>M1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radial tire</td>
<td>Inspect</td>
<td>Wheel and tire</td>
<td>Periodical Services</td>
</tr>
</tbody>
</table>

**CONTENTS**

WHEEL AND TIRE
Wheel balance

The principle importance of wheel and the assembly

**Inspection**

![Diagram showing wheel rotation and balance]

**Fig. 1. The Rotation**

Vehicle is driven 10,000 km (6,000 miles)

The shifting order shown in figure W-1 whenever the rear wheel bears the majority of the load (the rear). The condition of the rear wheel in accordance with the front will be influenced by the rear weight.

When the rear is in motion, the rear tires will cause the rear wheel to move. The rear wheel will move in a direction opposite to the front.

When the rear is in motion, the rear tires will cause the rear wheel to move. The rear wheel will move in a direction opposite to the front.

**The Rotation**

For front tires:

Ordinary tire, do not match tread letters with ordinary tires.

**Wheels**

C (Chapitre 5-A) - 5.0 (S.35 x 0.35) or less 4.5 (S.35 x 0.35) or less

Wheel balance weights are attached to the rear wheel at the end of a 100 mm (3.94 in) stem. When the wheel is in equilibrium, the amount should be 100 mm (3.94 in) or less. 100 mm (3.94 in) or less.

The process involves checking the wheels and the assembly.

**Radial life**

300 km (60 to 120 miles), 200 km (60 to 120 miles)

Be sure to replace when miles after running 100 to 150 km (60 to 90 km)

Test when miles to a tachometer of 8.0 to 9.0 km (85 mph)

8. Car roll while maintaining a constant or increasing a speed

7. Wheel the temperature rise

6. Lamp and shiny toppers

5. The car cannot be brake

4. Increase the rim and various types of tires

3. Read and uneven wear on the front edges

2. Hard steering

1. The shade on tires

**Tires**

When inflation pressure is too low, the following

4. Radial tread at center of tire

3. Poor traction at rear wheel resulting in uneven wear

2. Damaged tread or damaged caerus immediately inside wheel

1. Hard ride

Tires will last:

When inflation pressure is too high, the following

4. Reduced tread at center of tire

3. Poor traction at rear wheel resulting in uneven wear

2. Damaged tread or damaged caerus immediately inside wheel

1. Hard ride

Tires will last:
## Trouble Diagnoses and Corrections

<table>
<thead>
<tr>
<th>Possible Causes</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broken suspension spring</td>
<td>Replace</td>
</tr>
<tr>
<td>Loose steering linkage connection</td>
<td>Adjust or replace</td>
</tr>
<tr>
<td>Excessive steering linkage play</td>
<td>Replace</td>
</tr>
<tr>
<td>Worn or damaged ball joint and link bushing</td>
<td>Replace</td>
</tr>
<tr>
<td>Improper front wheel alignment</td>
<td>Adjust</td>
</tr>
<tr>
<td>Excessive play of wheel bearing</td>
<td>Replace</td>
</tr>
<tr>
<td>Worn or damaged wheel bearing</td>
<td>Correct Play or Replace</td>
</tr>
<tr>
<td>Loose wheel nuts</td>
<td>Retighten</td>
</tr>
<tr>
<td>Worn or damaged wheel bearings</td>
<td>Replace</td>
</tr>
<tr>
<td>Improper tire pressure</td>
<td>Measure and adjust correctly</td>
</tr>
<tr>
<td>Wheel wobbles</td>
<td>Replace</td>
</tr>
</tbody>
</table>

---

**Figure WT-2**: Wheel rim run-out check points

When the wheel deflections toward vertical and horizontal axes at the points indicated by the asterisk (*) exceed 0.4 mm (0.016 in) or more, replace the wheel.

---

**Wheel and Tire**
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<table>
<thead>
<tr>
<th>CHASSIS</th>
<th></th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repair or replace if necessary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repair correctly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measure and adjust correctly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce speed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or throttle correctly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repair correctly or replace if necessary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repair correctly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measure and adjust correctly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduc life rotation periodically</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard: Every 10,000 km (6,000 miles)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhibited suspension link</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improper alignment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improper tire wear.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improper tire pressure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Due to rapid acceleration or improper sudden start and improper speeding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High speed on curves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhibited suspension link</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessively distanced or improperly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improper wheel alignment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improperly adjusted brake</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imbalanced wheel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improper life pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessively worn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>Bulletin No.</td>
<td>Page No.</td>
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<tr>
<td>---------</td>
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<td>----------</td>
</tr>
</tbody>
</table>

SERVICE JOURNAL OR BULLETIN REFERENCE

ENGINE
SECTION ST

STEERING

DATSUN 240Z SPORTS
MODEL S30 SERIES

CHASSIS & BODY

NISSAN

NISSAN MOTOR CO., LTD.

ST. 1

NISSAN MOTOR CO., LTD.

ST. 16

NISSAN MOTOR CO., LTD.

ST. 20
The steering assembly is a direct-acting rack-and-pinion type with a gear ratio 17.8:1, providing sharp, high, and accurate control under all conditions.

It consists of a rack bar and located pinion, both held to 0.006 in. by the retainer and the retainer working in the plain bearing of the housing. Backlash is

---

**TABLE OF CONTENTS**

**STEERING SYSTEM**

**STEERING**
All working parts are immersed in grease. A grease nipple is provided to replenish the grease, enabling simple lubrication.

Due to better sealing and durability, the lubrication interval is two years or 40,000 km (24,000 miles). The grease used is a lithium base type having excellent waterproof characteristics.

Lithium base multipurpose NLGI No. 0 grease which has excellent waterproof characteristics is used for meshing portions of the rack-and-pinion, friction portions of the housing, and pinion portions of the rack and side shaft. Lubrication on the housing side is made through a grease nipple installed in place of the plug.

The amount of grease to be added is 10 to 15 gr (0.35 to 0.53 oz). Do not use more as it may cause overgreasing or overworking of the component.

Note: The lubrication of the gear housing should be made according to the following steps.

a. Remove the rack-and-pinion assembly with lower joint and disassemble the rack and pinion.

b. Thoroughly clean all parts of the assembly, especially the bellows, which can absorb moisture.

c. Lubricate through the grease nipple.

d. Install the rack-and-pinion assembly with lower joint.
Removal of steering column bracket bolts:

1. Remove the horn button by pulling rearward.
2. Remove the upper and lower steering column covers.
3. Disconnect the steering column assembly from lower column and remove the switch assembly.
4. Remove the steering post clamp by removing four bolts.
5. Remove the lower bolts securing the steering column assembly to the dash panel. Then remove the two screws retaining the column assembly to the engine compartment.
6. Remove the upper column bracket bolts.

Removal of steering wheel:

Wheel nut:

Remove the steering wheel after removing the steering column assembly.
Fig. 5.1-9: Installing lower joint components

1. Position the lower joint components in the specified locations.
2. Ensure all components are securely tightened.
3. Check for proper alignment before proceeding.

Fig. 5.1-10: Components of steering column assembly

1. Steering column cap
2. Steering column lower joint assembly
3. Steering column upper joint assembly
4. Upper steering column bracket
5. Lower steering column bracket
6. Lower steering column arm
7. Upper steering column arm
8. Upper steering column shackle
9. Lower steering column shackle
10. Lower steering column bracket
11. Upper steering column bracket
12. Lower steering column arm

Disassembly:

1. To disassemble upper and lower steering columns:
   - Remove the upper and lower jointing nuts.
   - Carefully pull the columns apart.
   - Remove any remaining components.

2. To remove a snap ring and spacer ring at the upper end:
   - Use a suitably sized tool to gently press the ring and spacer out of the steering column.

3. To remove the snap ring and spacer ring at the lower end:
   - Use a suitable tool to carefully push the ring and spacer out of the steering column.

Note: Do not disassemble the joint unless otherwise specified.

Defective Found:
- The clamp can be moved by lightly hitting with a wooden hammer.
- The snap ring and spacer ring can be removed separately.
- Ensure the screws are tight before reassembling.
### CHASSIS

#### Inspection

- Thoroughly clean and examine all parts of the assembly. Components showing signs of wear, chipping, or damage must be replaced with new parts.
- A damaged bearing must be replaced along with the steering column shaft assembly.

#### Steering Column Shaft Spring

<table>
<thead>
<tr>
<th>Wire diameter</th>
<th>Free length</th>
<th>Coils turn</th>
<th>Load x length</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.9 mm (0.1142 in)</td>
<td>36.5 mm (1.4370 in)</td>
<td>3</td>
<td>30 kg (66 lb) x 18 mm (0.7087 in)</td>
</tr>
</tbody>
</table>

#### Assembly and Lubrication

**Assembly**

- The reverse of disassembly. Observe the following points.

**Note:** When the lower steering shaft spline is fit the upper steering shaft spline, the slit of the universal joint must coincide with the punch mark located on the upper end of the upper steering shaft (See figure ST 11).

**Installation**

- Installation is the reverse of removal.

**Tightening torque**

- Steering wheel nut: 4 to 5 kg.m (28.9 to 36.2 ft-lb)
- Rubber coupling bolt: 1.5 to 1.8 kg.m (10.8 to 13.0 ft-lb)

**Snap ring oversize**

- 0.95 mm (0.0374 in)
- 1.05 mm (0.0413 in)
- 1.15 mm (0.0453 in)

**Thrust play of journal**

- 0 to 0.15 mm (0 to 0.059 in)

---

![Diagram](image-url)
Steering

1. Jack up the vehicle and support on stands. Remove front wheels.

2. Disconnect the steering lower joint from the steering column at the rubber coupling by removing two bolts.

3. Remove the pinion and then remove the lower joint assembly from the pinion.

4. Loosen the bolt securing the steering lower joint to the column at the rubber coupling.

5. Remove the rack-and-pinion with side rod assembly from the lower joint assembly.

6. Remove the pinion and shaft from the steering lower joint assembly.
1. Disconnect the steering lower joint from the rack.
2. Clamp the rack-and-pinion assembly in a vice by using braces on the steering gear housing to avoid disassembly.
3. Remove the rack-and-pinion assembly.
4. Remove the side rod from the knuckle arm.
5. Remove the side rod ball stud nut and disconnect the pinion from the rack.
6. Remove the securing the steering gear housing to the suspension member.
7. Remove the shock absorber to the side rod assembly.
8. Remove the steering gear housing to the side rod assembly.

Note: Be careful not to damage the accelerator linkage on drop off the control linkage.

Horse the engine slightly.
5. Withdraw the spring seal and side rod spring.

6. Detach the steering gear boots (both left and right hand).

7. Loosen the side rod lock nut and disconnect the side rod ball.

8. Loosen the lock nut and remove the retaining adjuster screw, and then take out steering gear retaining.

9. Pry off the oil seal.

10. Remove the snap ring and draw out the bearing.

11. Remove the snap ring and draw out the bearing from the pinion.

12. Remove the tiller pipe and draw out the rack from the steering gear housing. Remove the grease reservoir.

Fig. ST-21 Removing oil seal

Fig. ST-22 Removing snap ring

Fig. ST-20 Removing lock nut

Fig. ST-19 Removing side rod outer socket

Fig. ST-20 Removing snap ring
Components showing signs of damage or wear must be replaced.

Side rod ball and joint seal

Side rod must be replaced if seal is damaged or worn.

Side rod ball joint

axial play: 0.1 to 0.5 mm
swinging torque: 0.8 to 1.8 N·m

axial play: 0.25 mm (0.010 in)
swinging torque: 0.8 to 1.8 N·m

Side rod ball joint replacement:

3. Measure the swinging torque and axial play. When the values are not within the specified ranges, make necessary adjustments.

4. Replace the side rod ball joint with new parts.

5. Thoroughly clean all parts of the assembly.

6. Thoroughly examine all parts of the assembly.

7. Replace as needed.

8. Thoroughly examine all parts of the assembly.

9. Thoroughly clean all parts of the assembly.

10. Replace as needed.

11. Thoroughly examine all parts of the assembly.

12. Replace as needed.

13. Thoroughly clean all parts of the assembly.

14. Replace as needed.

15. Thoroughly examine all parts of the assembly.

16. Replace as needed.

17. Thoroughly clean all parts of the assembly.

18. Replace as needed.

19. Thoroughly examine all parts of the assembly.

20. Replace as needed.

21. Thoroughly clean all parts of the assembly.

22. Replace as needed.

Chassis
Note: Use the tightest snap ring among the variations.

2. Fill the snap ring.

Assembly and adjustment

1. Press the bearing onto the pinion gear.

### SPRING

<table>
<thead>
<tr>
<th>Load x Length</th>
<th>40 lb (18 kg) x 17.0 mm (0.669 in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coil tubes</td>
<td>6.9</td>
</tr>
<tr>
<td>Free length</td>
<td>2.6 mm (0.102 in)</td>
</tr>
<tr>
<td>Wire diameter</td>
<td></td>
</tr>
</tbody>
</table>

### SIDE ROD SPRING

<table>
<thead>
<tr>
<th>Load x Length</th>
<th>20 lb (9.1 kg) x 16.3 mm (0.642 in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coil tubes</td>
<td>5.5</td>
</tr>
<tr>
<td>Free length</td>
<td>2.6 mm (0.102 in)</td>
</tr>
<tr>
<td>Wire diameter</td>
<td></td>
</tr>
</tbody>
</table>

### STEERING

Specialized values are shown below:

Springs

As a rule, replacement is made during overhaul.

Oil seal

Replacement with the steering gear housing assembly.

Bushing

When the bushing is scored, cracked, or worn, make replacement.

When the bearing is inflamed, cracked or worn, make replacement.

FIG. ST-26 Cross section of ball end

FIG. ST-25 Measuring spring torque
Use the thickest snap ring among the Variations.

Note: Carefully fit the snap ring to the housing groove.

Snap ring oversize

Fig. ST-19 Fitting snap ring

Place the snap ring, holding the bearing outer race in

Fig. ST-28 Measuring positioning of rack

One of the菲portion of the rack is directed upward.

By equal amounts on the left and right with the groove.

Make sure that the rack extends beyond the housing

Fig. ST-29 Inserting pinion

and insert the pinion without damaging the bushing.

7. Match the teeth of the pinion to those of the rack.

Pinion teeth and bushing and pinion bearing.

6. Evenly apply multipurpose NLGI No. 2 Grease to the

Fig. ST-27 Measuring positioning of pinion

shell.

and that rack teeth are directed toward the pinion

amount from both ends of the housing [96 mm (3.800"

3. Make sure that the rack protrudes by the same

gear housing side.

4. Evenly apply multipurpose NLGI No. 2 Grease to

3. Clamp the steering gear housing in a vice.

<table>
<thead>
<tr>
<th>Thickness</th>
<th>0.0498</th>
<th>0.0502</th>
<th>0.0498</th>
<th>0.0498</th>
<th>0.0502</th>
<th>0.0498</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>1.00</td>
<td>0.99</td>
<td>0.98</td>
<td>0.97</td>
<td>0.96</td>
<td>0.95</td>
</tr>
<tr>
<td>1.10</td>
<td>1.09</td>
<td>1.08</td>
<td>1.07</td>
<td>1.06</td>
<td>1.05</td>
<td>1.04</td>
</tr>
<tr>
<td>1.20</td>
<td>1.19</td>
<td>1.18</td>
<td>1.17</td>
<td>1.16</td>
<td>1.15</td>
<td>1.14</td>
</tr>
<tr>
<td>1.30</td>
<td>1.29</td>
<td>1.28</td>
<td>1.27</td>
<td>1.26</td>
<td>1.25</td>
<td>1.24</td>
</tr>
<tr>
<td>1.40</td>
<td>1.39</td>
<td>1.38</td>
<td>1.37</td>
<td>1.36</td>
<td>1.35</td>
<td>1.34</td>
</tr>
</tbody>
</table>
13. Insert the retainer and retainer spring into the retainer hole, and thread in the adjusting screw.

12. Apply an adequate amount of the multipurpose NLGI No. 2 grease to the retainer.

Fig ST-33. Measuring thrust play of the pinion.

Less than 0.09 mm (0.0035 in)

Fig ST-32. Fitting oil seal.

11. Measure thrust play of the pinion.

Fig ST-35. Locking retainer lock nut.

25 degrees. Lock this screw with the lock nut.

14. Fully tighten the adjusting screw and back off 20 to 10

Fig ST-34. Threading in adjust screw.

10. Fill the oil seal.
16. After assembly of the rack-and-pinion, measure the pinion torque, pinion angle, and preload of the ack. When these values are not correct, readjust.

Pinion rotation torque: 8 to 20 kg-cm (7 to 17 in-lb)
Rack preload: 8 to 18 kg (17.6 to 39.7 lb)

Fig. ST-37 Measuring pinion rotation torque
Note: Rotate or slide smoothly over the entire range of the stroke.

17. Fit a dust cover clamp on each end of the housing.

18. Thread the stopper nuts over the threaded portion of the rack.

Fig. ST-38 Measuring rack preload

19. Apply an adequate amount of grease to the ball joint friction portion of the side rod assembly.

20. Assemble the spring and ball seat, and fit the inner socket portion of the side rod assembly to the rack.

21. Tighten the inner socket portion until the ball seat reaches the rack end. Back off the inner socket 20 to 35 degrees, and lock with the stopper nut.

Fig. ST-39 L-mark
No mark is used for the right side.

Fig. ST-40 Locking the stopper nut
Stopper nut tightening torque:
8 to 10 kg-cm (7.3 to 7.3 ft-lb)

Note: Make sure that the boot is carefully positioned toward the ball end.
Installation

2. Adjust the side rod length (both left and right).
3. Grease and attach the extension to the rack housing.
4. Fill the grease reservoir with multipurpose NGET.
5. Retain the door.
6. Remove the grease nipple and install the filler plug.
7. Do not apply excessive amounts of grease.
8. Between the rack and housing, so that a small amount of grease appears
9. Make sure that a small quantity of new grease appears at the boot.
10. Note: Lubrication of the rack ends is made so that a

Support the grease

Rack stroke: 60.7 mm (2.390 in)

Fig. ST-15. Measuring rack stroke

24. Install a grease nipple at both ends of the rack-

No. 2

2. Measure the rack stroke.

(6.6 to 13.2 lb)

Fig. ST-4.1. Measuring steering torque of side rod

Side rod inner ball joint swing arm torque:

22. After assembly of the side rod, measure the

Fig. ST-4.3. Supporting the grease

ST-15

Steering
<table>
<thead>
<tr>
<th>Corrective action</th>
<th>Possible causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tighten more.</td>
<td>Loose side road lock nut.</td>
</tr>
<tr>
<td>Replace.</td>
<td>Excessive clearance of side road inner or outer ball joint.</td>
</tr>
<tr>
<td>Replace.</td>
<td>Deflection of steering linkage and suspension link.</td>
</tr>
<tr>
<td>Replace.</td>
<td>Compression rod.</td>
</tr>
<tr>
<td>Adjust.</td>
<td>Wear or upper bushing for steering transverse link and</td>
</tr>
<tr>
<td>Replace.</td>
<td>Incorrect alignment of brake (binding).</td>
</tr>
<tr>
<td>Adjust.</td>
<td>Incorrect wheel alignment.</td>
</tr>
<tr>
<td>Replace.</td>
<td>Collapsing or twisting of front spring.</td>
</tr>
<tr>
<td>Adjust or replace.</td>
<td>Incorrect alignment of front wheel bearing.</td>
</tr>
<tr>
<td>Replace.</td>
<td>Difference in height of right and left tie rods.</td>
</tr>
<tr>
<td>Adjust or replace.</td>
<td>Improper pressure or insufficient inflation of wheel.</td>
</tr>
</tbody>
</table>

**Shimmy:**

This is abnormal vibration of the front suspension group and the entire steering linkage.

**Vibration:**

Very noticeable when traveling over rough roads. This is a normal vibration of front wheels. In many cases, transmitted to the steering wheel. This is due to much backlash of the steering gear, wear of linkage parts, and slight looseness in the tie rod ends.

1. Vibration, shock, and shimmying of steering wheel.

Troubles in the front axle and front suspension are usually with steering troubles.

**Trouble Diagnoses and Corrections**
<table>
<thead>
<tr>
<th>Possible causes</th>
<th>Corrective action</th>
<th>Possible causes</th>
<th>Corrective action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imbalance and deformation of loadwheel.</td>
<td>Correct the imbalance or replace.</td>
<td>Wear of rubber bushings for fitting transverse link and compression rod.</td>
<td>Replace or tighten.</td>
</tr>
<tr>
<td>Uneven wear of tires and insufficient tightening.</td>
<td>Replace or tighten.</td>
<td>Loose steering post clamp.</td>
<td>Replace.</td>
</tr>
<tr>
<td>Faulty wheel alignment.</td>
<td>Adjust.</td>
<td>Wear of steering column bearing.</td>
<td>Replace.</td>
</tr>
<tr>
<td>Wear of bushings for fitting transverse link and compression rod.</td>
<td>Replace.</td>
<td>Breakage or collapsing of steering column shaft spring.</td>
<td>Replace.</td>
</tr>
<tr>
<td>Inefficient tightening of steering gear housing.</td>
<td>Replace.</td>
<td>Wear of suspension ball joint.</td>
<td>Replace.</td>
</tr>
<tr>
<td>Improper adjustment of retainer. (Too much backlash)</td>
<td>Adjust.</td>
<td>Malfunction of shock absorber (inside strut) or loose bolts.</td>
<td>Replace or tighten.</td>
</tr>
<tr>
<td>Imbalance of vehicle level.</td>
<td>Correct the imbalance.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Wandering of vehicle in one direction

When driving with hands off the steering wheel over a flat road, the car gently pulls to one side of the road.

Note: Defective rear suspension may also be the cause of this tendency. Refer to information concerning the rear suspension.
<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rack stroke</td>
<td>60.7 mm (2.390 in)</td>
</tr>
<tr>
<td>Rack height</td>
<td>0.99 mm (0.039 in)</td>
</tr>
<tr>
<td>Pinion height</td>
<td>0.147 mm (0.0057 in)</td>
</tr>
<tr>
<td>Pinion length</td>
<td>0 mm (0)</td>
</tr>
<tr>
<td>Side rod outer ball joint axial play</td>
<td>0.015 mm (0.0006 in)</td>
</tr>
<tr>
<td>Side rod inner ball joint axial play</td>
<td>0.036 mm (0.0014 in)</td>
</tr>
<tr>
<td>Load x length</td>
<td>6.8 kg (15 lb) x 20 mm (0.79 in)</td>
</tr>
<tr>
<td>Coil turns</td>
<td>6.3</td>
</tr>
<tr>
<td>Free length</td>
<td>19.0 mm (0.748 in)</td>
</tr>
<tr>
<td>Wheel diameter</td>
<td>26.0 mm (1.02 in)</td>
</tr>
<tr>
<td>Retainer spring dimension</td>
<td>Load x length 20 kg (44 lb) x 16.3 mm (0.642 in)</td>
</tr>
<tr>
<td>5.5</td>
<td>Coil turns</td>
</tr>
<tr>
<td>Free length</td>
<td>26.3 mm (1.035 in)</td>
</tr>
<tr>
<td>Wheel diameter</td>
<td>27.0 mm (1.06 in)</td>
</tr>
<tr>
<td>Retainer spring dimension</td>
<td>Load x length 26.5 kg (58 lb) x 18 mm (0.7087 in)</td>
</tr>
<tr>
<td>29</td>
<td>Free length</td>
</tr>
<tr>
<td>36.5 mm (1.4370 in)</td>
<td>Wheel diameter</td>
</tr>
<tr>
<td>0.9 mm (0.0354 in)</td>
<td>Free length</td>
</tr>
<tr>
<td>Spring column shaft spring - wire diameter</td>
<td>Load x length 25 kg (55 lb) x 18 mm (0.7087 in)</td>
</tr>
</tbody>
</table>

### SERVICE DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lubrication period</td>
<td>Two years or 40,000 km (24,999 miles)</td>
</tr>
<tr>
<td>Center distance between the rack-and-pinion</td>
<td>15 mm (0.591 in)</td>
</tr>
<tr>
<td>Number of pinion teeth</td>
<td>7</td>
</tr>
<tr>
<td>Rack stroke</td>
<td>60.7 mm (2.390 in)</td>
</tr>
<tr>
<td>Minimum turning radius</td>
<td>48.8 m (160 ft)</td>
</tr>
<tr>
<td>Outside - radius</td>
<td>21.07 m (68.9 ft)</td>
</tr>
<tr>
<td>Turning angle of front wheel - inside</td>
<td>11.8 : 1</td>
</tr>
<tr>
<td>Steering gear ratio</td>
<td>1:14.42</td>
</tr>
<tr>
<td>Teeth of steering wheel (lock to lock)</td>
<td>2.7 m (8.9 ft)</td>
</tr>
<tr>
<td>Rack-and-pinion type</td>
<td></td>
</tr>
</tbody>
</table>

### SPECIFICATIONS

### CHASSIS
<table>
<thead>
<tr>
<th>Subject</th>
<th>Page No.</th>
<th>JOURNAL No.</th>
<th>DATE</th>
</tr>
</thead>
</table>

**SERVICE JOURNAL OR BULLETIN REFERENCE**

<table>
<thead>
<tr>
<th>5.5 to 7.6 kgf-m (39.8 to 54.9 lbf-ft)</th>
<th>9 kgf-m (65.1 lbf-ft)</th>
<th>8 to 10 kgf-m (55.8 to 72.3 lbf-ft)</th>
<th>4 to 6 kgf-m (28.9 to 43.4 lbf-ft)</th>
<th>4 to 5 kgf-m (28.9 to 36.2 lbf-ft)</th>
<th>1.5 to 1.8 kgf-m (10.8 to 13.0 lbf-ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steering wheel nut</td>
<td>Retainer lock nut</td>
<td>Side rod inner socket stopper nut</td>
<td>Lower joint bolt</td>
<td>Rubber coupling bolt</td>
<td>Steerling wheel nut</td>
</tr>
</tbody>
</table>

**TIGHTENING TORQUE**

<table>
<thead>
<tr>
<th>Rack preload</th>
<th>Pinion preload torque</th>
<th>Side rod outer ball joint swinging torque</th>
<th>Side rod inner ball joint swinging torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 to 10 kgf (17.6 to 22.7 lbf)</td>
<td>8 to 10 kgf-cm (710 to 1770 in-lbf)</td>
<td>0.8 to 1.5 kgf (5.8 to 10.8 lbf)</td>
<td>0.8 to 1.5 kgf-cm (5.8 to 10.8 in-lbf)</td>
</tr>
</tbody>
</table>

**STEERING**
FUEL & EXHAUST SYSTEM
ENGINE CONTROL SYSTEM

FE-2
FE-1

DATSUN 240Z SPORTS
MODEL 530 SERIES
CHASSIS & BODY

SECTION FE

NISSAN MOTOR CO., LTD.

NISSAN

TOYO, JAPAN
Adjustment

Removal:

1. Remove three screws from the accelerator pedal.
2. Separate the accelerator rod from the pedal arm at the ball joint.
3. Remove two bolts from the torsion shaft support.

Removal is carried out in reverse sequence of installation.

Description:

The accelerator linkage, with the minimum weight has been constructed so that it is not affected by the engine vibration and operates smoothly.

ACCELERATOR LINKAGE

ENGINE CONTROL SYSTEM

ENGINE CONTROL, FUEL & EXHAUST SYSTEM
EXHAUST SYSTEM

CONTENTS

FUEL AND EXHAUST SYSTEM

1. Adjust the screw on the ball joint No. 1 so that the dimension "L" is correctly aligned to 108 mm (4.25 in).
2. Adjust the screw on the ball joint No. 2 so that the length of the tension rod (length between both adjustment range is 182 ± 6 mm) (7.17 ± 0.236 in) and the fuel inlet is correctly positioned in "Fuell Close".
3. Install the accelerator linkage on the vehicle, and so that it comes into contact with the pedal when the accelerator pedal and adjust the stopper bolt properly.
4. Upon completion of the above adjustment, depress the stopper bolt with the lock nut.

Now, turn the stopper bolt clockwise to one full turn and then the stopper bolt clockwise to one full turn and then check the holing nut so that it comes to contact with the pedal when the stopper bolt is positioned in the "Fuell Open" position.

FE-3 EXHAUST SYSTEM

Description

FE-3
Fuel Inlet

FE-2
Fuel Tank

FE-4
Removal

FE-4
Removal

FE-4
Removal

FE-4
Removal

FE-4
Registration

FE-3
Description

FE-2
Removal

FE-2
Removal

FE-2
Removal

FE-2
Removal

FE-2
Removal
Removal

1. Remove three front tube and exhaust manifold connecting bolts.

2. Remove the exhaust hanger strap (the point "E" shown in the Figure FE-3).

3. Remove the exhaust hanger strap (the point "D") shown in the Figure FE-3.

4. Remove the bolt (the point "C") shown in the Figure FE-3 and dismount the exhaust system.

5. Remove the U-bolts (the points "G" and "D") shown in the Figure FE-3 and separate the exhaust system into three sections.

The exhaust system consists of three units providing front tube, pre-muffler and center tube, and main muffler and tail pipe. As seen in the Figure FE-3, the exhaust system is mounted at the points "B", "D" and "E" and clamped at the points "B" and "D" with U-bolts.
Removal:

1. Remove the drain plug from the tank bottom and:

2. Disconnect the fuel gauge cable outlet tube and:

3. Disconnect the fuel tank from the tank. (Fuel tank equipped with type 32 meter cap is of a Serviceable type. The service panel and the filter cap is of a Serviceable water resistant cap.)

4. The fuel inlet is the filter located in the rear right of the fuel tank. (159 US gal.)

The fuel tank is installed beneath the rear floor with the rear voids that are located on the rear rear and approximately midway of the left floorboard. Two bands are located on the rear rear bands.

Description:

FUEL TANK

1. Check the inspection rubber and mounting bracket for damage and replace as required.

2. Upon completion of the fuel tank installation, check the exhaust system for exhaust gas leakage and exhaust noise.

3. Check the fuel level and filter for deformation and replace as required.

FUEL SYSTEM

CHASSIS
5. Disconnect the breather tube and air supplier line and disconnect the tank.

4. Disconnect three ventilation tubes (used to connect the reservoir to the tank) and filter hose from the tank.

3. Remove nuts from two tank securing bands and slightly lower the link.

The fuel line between the fuel strainer and fuel tank is provided with a fuel return pipe and thus, vapor lock and leakage can be completely prevented. Moreover, the fuel line is molded single unit, and with this construction, fuel

FUEL STRAINER

Simulate phenomenon is prevented.

The fuel strainer is a Nylon cartridge type strainer.

FUEL LINE

ENGINE CONTROL, FUEL & EXHAUST SYSTEM

SERVICE JOURNAL OR BULLETIN REFERENCE
Description

The body adopts a unit construction system. With the fuel tank located beneath the hood and effectively the fuel tank is located beneath the hood and the rear seat is largely provided for passengers. In addition, the rear space behind the floor level thus the floor space behind the second row seat is contained in the space the housing sunk

Body

Body
RADIATOR GRILL

1. Remove the front bumper, and remove the radiator grill installation screws.

2. Reinstall the radiator grill in reverse sequence of removal.

COWL TOP GRILL

1. Remove the windshield wiper blades, together with the arms.

2. Remove the set screws, and remove the cowl top grill toward the front.

BUMPERS
Hood Lock

Fig. BE-11 Structural view of hood lock

Fig. BE-9 Removing hood

Removal

1. Open the hood and remove bolts from both sides.
2. Hold the hood from both sides with two persons, and remove it.

The hood assembly can be inspected easily. The hood can be opened widely, and thus, the engine compartment is large and the hood is also large.
Adjustment

1. When the deflector of the hood lock is not completely attached to the hood hinge, loosen and properly adjust the hood lock. When the deflector is too shallow or too deep, adjust the deflector properly.

Removal

1. Open the hood, and remove the hood lock plate.
2. Remove the clamp from the hood lock bracket and the hood lock cube.
3. Remove the hood lock bracket from the hood lock cube.
4. Remove the hood lock control from the dash side.
For the installation, use stripping and spuitka shown in the figure.

1. Depress the windshield glass to the outside.

2. Depress the weather strip toward outside, lightly from the outside.

3. Apply a sealant or Ordinary (e) headed screwdriver to the adhesion in the windshield frame by applying a sealant or Ordinary (e) headed screwdriver.

4. Be careful not to deform the moulding.

5. Remove the windshield moulding.

6. Remove the windshield wiper blades together with the arms.

7. Remove the instrument panel garnish.

8. Remove the rear view mirror.

9. Remove the windshield glass.

10. Apply adhesive.
Fig. B5-16 Structural view of side window

1. Install the rear view mirror.
2. Install the instrument panel finisher.
3. Install the windshield wiper blades and arms.
4. Install the windshield moldings.
5. Apply adhesive to the exterior party.
6. Apply the overall glass area lightly to select the weather strip.
7. Apply the overall glass area lightly to select the weather strip.
8. Apply the windshield glass.
9. Set the windshield glass to the compartment from the outside, put the string into the compartment and set the windshield glass to the compartment from the inside.
10. Apply the weather strip inside the compartment.
11. Apply the weather strip outside the compartment.

Note: The operation should be carried out by two persons, and one of them works at outside and the other works at inside.

BODY
Door

Contents

Doors

Fig. BF-17 Structural view of tail gate glass

Tail Gate Glass

For the tail gate glass removal and installation, the instructions for windshield glass apply. However, select an agent is used in lieu of adhesive.
FIG. BE-18 Stripped view of door

Removal

1. Disconnect the battery cable from the battery.
2. Disconnect the horn relay from the dash.
3. Remove the door panel from the door with the hinges installed on the door.
4. Remove the door hinge bolts.
5. Remove the door with the hinges installed on the door.

The door may be removed only by removing the hinges installed on the door when adjustment is required.

Initiator and improving the safety

The strength, rigidity, and safety of the door compartment, and thus, together with the door glass, provide with two stiffeners. The window glass, made of curved glass, utilizing which, the window drops curved glass, which is the region, which is the region, which is the region, which is the region, which is the region, which is the region, which is the region, which is the region.
Adjusting stroke: 3 mm (0.118 in) to upper.

Adjusting striker:

1. Adjust the door lock striker position with three door lock striker. Door can be closed lightly and securely.

2. Adjust the door lock striker correctly so that the door can be closed lightly and securely.

3. Adjust the door lock striker position when closed.

**Door Lock Striker**

**Reinstallation**

From the hinges:

Installation bolts from the hinges and remove the door.

When removing the door without the hinges (the hinges are retained on the body), remove the door side when removing the door without the hinges (the hinges are retained on the body). Note: Apply a piece of rag between the door and the body. so that the door is stopped down. Applying a small bump on the door or by means of a jack.

4. Remove the door side trim.

5. With the door opened fully, support the door by (driver's seat side only).

3. Remove the hood lock control installation bracket.

**Body**
DOOR LOCK INSIDE LEVER

1. Remove the cover, screw, and escutcheon in this sequence when in proximity (labeled) screwdriver.

2. Remove the door handle, make sure the knob is faced forward with the side window glass completely closed. Be made and used for this operation.

REINSTALLATION

1. Reinstall the door regulator handle in reverse sequence.

DOOR REGULATOR HANDLE

1. Pull the door regulator handle forward, withdraw the pin.

2. Remove the door handle from the door.

Note: Recommended the tool shown in the figure BF-22.
DOOR TRIM

1. Raise the cover with an ordinary [(-) headed] screw driver.

2. Remove the installation screws with a cross-headed screw driver.

3. Remove the assistant strap.

DOOR ASSISTANT STRAP

BODY
DOOR SEALING SCREEN

4. Rash the door finish, remove H.

Door finish clips from the door panel.

3. Insert an ordinary (-) headed screw driver between the door finish and door inner panel, and unlock the knob from the door.

2. Remove the arm rest, assistent step, and door lock handle from the door.

1. Remove the inside handle, escutcheon, and regulator.

BF-15

FIG. BF-27 Installing door sealing screen

FIG. BF-26 Removing door finish
**Door Window Regulator and Door Glass**

**Removal**

1. Remove the door components up to the extent of the guide channel.

2. Refer to page BT-17.

3. Loosen the nuts by applying tool from the opening.

4. Remove the outer mirror.

5. That the adhesive surface is not wrinkled.

6. Stick the sealing screen carefully and correctly so

   Insert panel.

7. Be careful not to choke the water drain hole on the

   Screen on the panel.

8. Apply adhesive to the panel and stick the sealing screen.

**Installation**

9. Continue assembly of the door glass and sealing screen.
Fig: BF-32 
Adjustment of door glass

1. Install the door outside moulding and glass bumper

2. Adjust the guide channel and front glass properly so that the window glass rises and lowers smoothly along the channel.

3. Raise the glass to the top, slide the front window with an ordinary (+) headed screw driver.

4. Lower the window glass down to a half level, and remove it.

5. Reinstall the front door glass.

6. Remove the regulator assembly and glass guide channel.

Removal
REMOVAL

1. Remove the door glass.
2. Remove both the front and rear sealing rubbers.
3. Remove the door components up to the rear of the door glass.

INSTALLATION

1. Install the door glass in reverse sequence of removal.

NOTE: The door sash can be adjusted slightly. Adjust as required.

4. Be sure to install the front sash and in parallel.

If not, move the guide channel downward, secure it, and adjust the rear edge of glass connected applied to the sash.

3. Slide the window glass up and down, and make sure it is properly and lightly connected after ensuring that the front sash is at the same line.
5. Lower installation screws, and remove the remote control unit.

4. Remove the remote control rod from the lock main.

3. Remove the key cylinder rod from the key cylinder.

2. Remove the door sash.

1. Remove the door components up to the extreme of the sealing screen.

Removal

Door lock

BODY
TAIL GATE

Reinstallation

Install the door lock in reverse sequence of removal.

7. Remove the key cylinder installation plate clip, and remove the key cylinder.
8. Remove the nut from inside of the door, and remove the outside handle.

6. Remove the door lock main unit installation screws, and removing the outside handle rod from the opening on the door lock main unit.

Note: Be sure to screw the door knob lock into the rod after installing the door finish.

Description

The tailgate opened upward adopts a single-sheet construction, and thus luggages can be loaded and unloaded conveniently. The tail gate stay adopts a gas spring (filled with nitrogen gas) increasing the operating smoothness and improving the external appearance.

Removal

In order to ease tailgate installation and removal, split type hinges are used. The hinges are secured with both side installation screws. Moreover, when the push-button is locked, the push-button can be depressed but not unlocked.

Description

Note: The gas spring is filled with highly compressed nitrogen gas. Do not disassemble the tailgate stay.
Removal

1. Open the tail gate and remove the tail gate stay.

2. Hold a piece of rag between the tail gate and tool.

3. Hold the hinge and tail gate installation screws, and securely support the tail gate.

4. Hold the tail gate from both sides (two persons are required), and remove it.

Adjustment

1. Adjust the tail gate position at the section between the hinge and body.

2. Remove the license plate lamp, and remove the tail gate.

3. Remove the height indicator, and remove the key cylinder.

4. The down stopper and rubber bumper can be the stickler.

Appendix

Tail gate lock

(0.1969 in) reduce located the left and right sides is 5 mm
For the front and rear directions, adjust the tail gate.

Tail gate lock

Upper, lower, left and right:
3.5 mm (0.1378 in)

Upper, lower, left and right:
3 mm (0.1181 in)
REAR PANEL FINISHER

For rear panel finisher:

Installing plastic mold

After painting

Rear panel finisher

1. clipped point

2. Rear panel

3. Center finisher

4. Right finisher

5. Plastic mold

6. Left finisher

8. Plastic mold

Forward and rear: 2.5 mm (0.0984 in)

The adjustable range is 5 mm (0.1969 in).

The down stopper is adjustable to the front and rear.

Down stopper
Note: Be careful not to mar the painted surface of the

4. Fill and withdraw the finisher, and remove it from the clip unit.
3. Pulling the finisher, remove it from the clip unit.
2. Remove the license plate lamp.

Removal

1. Remove the plastic ret from the finisher.

The top is secured with plastic clips.

The finisher is split into three pieces providing the

BODY
1. Disconnect the battery cable from the battery.
2. Remove the wiring harness (terminal (±) or (-) terminal).
3. Disconnect the instrument cable from the engine compartment harness.
(3) Disconnect the instrument harness from the door switch.
(2) Disconnect the instrument harness from the unit.
(1) Disconnect the instrument harness from the instrument panel, brass terminal.

Removal:

Instrument Panel
1. Disconnect the heater control cable at the heater.
2. Remove the steering wheel hub cover.
3. Remove the instrument panel top from the instrument panel and both sides of the console until, raise the ins.
4. Remove the screws from the instrument panel top.
5. Remove the steering wheel hub.
6. Remove the instrument panel with a cross-headed screwdriver.
7. Remove the floor console.
8. Remove it toward the rear, and remove the shield, cover, and console unit.
CONENTS

SEAT ELEVATION

SEAT SLIDE

SEAT BACK TILTING (inclination)

Removal

1. The floor console is installed on the floor with installation screws together with the floor console.

2. Tighten the cover with the floor console.

3. Install the change lever dust cover by tilting it to the

Door

BODY
INTERIOR TRIMS

number of spacers to each seat riser.

Note: When spacers are used, be sure to apply some
the spacers.

i. Required: When desired to lower the seat, ensure
it is desired to raise the seat, place the spacer on the seat
the spacer indicated in figure B-E.7.5. When
the seat elevation is adjusted with
both seats can be adjusted 20 mm (0.79 in) each
Seat Elevation

Information can be adjusted without removing the seat.
rearward, the adjusting pitch is 20
The total adjusting angle is 5°. Each forward and
Seat back tilt (Adjustment)

\[ \text{The seat adjuster levers are arranged in the body center} \]

\[ \text{mm (0.79 in)} \]
and the adjusting pitch is 20
mm (0.79 in) to forward and rearward
mm (0.79 in) to forward and rearward

\[ \text{Assistance Driver's seat} \]

\[ \text{The total side stroke is 120} \]

Seat side

3. Adjusting pitch is 20 mm (0.79 in)

\[ \text{mm (0.79 in)} \]
and the adjusting pitch is 20

\[ \text{mm (0.79 in)} \]
and the

\[ \text{mm (0.79 in)} \]
and the forward

\[ \text{mm (0.79 in)} \]
and the rearward

\[ \text{mm (0.79 in)} \]
and the rearward

\[ \text{Driver's seat} \]

\[ \text{The total side stroke is 180 mm (7.09} \]

Removal

Head rest
The head rest is a high seat back which combines the seat back and
and assists in reducing a rapid compression and the seat
The bucket type separate seat completely holds driver
The body side trim is installed with clips.

Except for the body side front trim, all trims are installed with plastic nuts.

**BODY SIDE TRIM**

Once, replace it with new one.

Only by peeling it off, when the insulator is removed effectively. For this reason, the insulator can be removed with clips toward the entire area so that sound is insulated.

The dash insulator has been attached and connected.

**DASH INSULATOR**

- 6. Remove the dash side trim.
- 5. Remove the rubber grommet.
- 4. Raise the trim dash holding clip.
- 3. Remove the horn relay installation screws.
- 2. Remove the washer nozzle installation screws.
- 1. Remove the washer nozzle installation screws.

**Removal**

**DASH SIDE DRAIN HOSE**

**BODY**
INSIDE REAR VIEW MIRROR

1. Install the rear view mirror on the body through a drop-off system mechanism.

REAR FLOOR TRIMS

1. Install the luggage trim with self-tapping screws.
2. Install the rear floor mat on the floor with fasteners.
3. Install the rear seat trim with adhesive.
4. Install the luggage stopper with machine screws.
5. Install the luggage belt with machine screws.

LUGGAGE BELT

1. Luggage belts are used to secure luggage and are installed on the rear floor with screws.
2. Both front and rear door mats are secured with fasteners.
3. Do not allow the front and rear door joints on the door to contact the luggage.
4. Adhere the front door joint on the door panel.
5. Weld and install the interior on the floor panel.

BODY
Seating is applied to the individual panel joints, and thus, the body sealing is secured.
For details, see the above shown figure.

1. ExtendTime harness to the lower right side of the body.

2. Through the dash panel, extend the harness to the instrument harness at the bottom of instrument.

3. Through the radiator, extend the harness to the body left side of the hood hinge.

4. Through the radiator support, connect the wire to the radiator.

Through the cross member top in lower front side of the body.

FIG. BE-1 Engine compartment harness

COLOR CODE

Green : G
White : W
Red : R
Black : B
Yellow : Y
Blue : L

ENGINE COMPARTMENT HARNESS

BE-1

BE-1

BE-2

BE-3

CONCORS

BODY HARNESS

INSTALLMENT HARNESS

WIRING HARNESS

WIRING

BODY ELECTRICAL
6. For details, see the above shown figure.

5. Extend the harness at position of the rear lamp and

between the inner panel and outer panel.

4. Extend the harness to the tail lamps by passing it

right side lower edge.

3. Extend the harness to the wheel housing along the

at the bottom of the instrument panel.

2. Connect the body harness to the instrument harness

1. Connect the body harness to the instrument harness

WRITING INSTRUCTIONS

COLOR CODE

Green : G
White : W
Red : R
Black : B
Yellow : Y
Blue : L

Body Harness

Body Electrical
<table>
<thead>
<tr>
<th>Specification</th>
<th>Quantity</th>
<th>Color</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head lamp unit</td>
<td>2</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Side clearance and turn signal lamp</td>
<td>2</td>
<td>Amber</td>
<td></td>
</tr>
<tr>
<td>Side marker lamp</td>
<td>4</td>
<td>Amber</td>
<td></td>
</tr>
<tr>
<td>License plate lamp</td>
<td>2</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Rear combination lamps</td>
<td>2</td>
<td>Red</td>
<td>Used also for hazard pilot lamp</td>
</tr>
<tr>
<td>Tail lamp</td>
<td>2</td>
<td>Red</td>
<td></td>
</tr>
<tr>
<td>Stop (brake) lamp</td>
<td>2</td>
<td>Red</td>
<td></td>
</tr>
<tr>
<td>Turn signal lamp</td>
<td>2</td>
<td>Amber</td>
<td></td>
</tr>
<tr>
<td>Back up lamp</td>
<td>2</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Meter illuminating lamp</td>
<td>6</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Brake warning lamp</td>
<td>1</td>
<td>Red</td>
<td></td>
</tr>
<tr>
<td>Turn signal pilot lamp</td>
<td>2</td>
<td>Green</td>
<td></td>
</tr>
<tr>
<td>Head lamp main (high)</td>
<td>1</td>
<td>Blue</td>
<td></td>
</tr>
<tr>
<td>Head lamp pilot (low)</td>
<td>4</td>
<td>Amber</td>
<td></td>
</tr>
<tr>
<td>Hazard lamp</td>
<td>1</td>
<td>Milky white</td>
<td></td>
</tr>
<tr>
<td>Room lamp</td>
<td>1</td>
<td>Milky white</td>
<td></td>
</tr>
<tr>
<td>Engine compartment inspection lamp</td>
<td>1</td>
<td>Milky white</td>
<td></td>
</tr>
<tr>
<td>Glove box illumination lamp</td>
<td>1</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Clock illumination lamp</td>
<td>1</td>
<td>White</td>
<td></td>
</tr>
</tbody>
</table>
2. Head high aiming adjustment and adjusting values (unchanged condition)

Fig. BE-4 Removing head lamp

- Remove four screws
- Remove the head lamp from the inside of the body

HEAD LAMP
BODY
FIG. BE-9 Rear side marker lamp

FIG. BE-8 Front side marker lamp

Front and rear (for U.S.A., CANADA)

REFLECTOR
SIDE MARKER REFLEX

Steps:
1. Remove the lamp cover after removing three sets.
2. Replace the bulb.

LICENSE PLATE LAMP

FIG. BE-6 Replacing front parking/signal lamp

FIG. BE-7 License plate lamp installation

TURNSIGNAL

Front parking / turn signal

LAMP

Body Electrical
**Fig. 12 Installing rear combination lamp assembly**

Remove the two screws and remove the rear combination lamp assy.

**Fig. 11 Replacing rear combination lamp bulb**

Remove the bulb from the rear side of the socket; replace the bulb from the rear side of the panel trim (secured with plastic retainers).

**Fig. 10 Rear combination lamp**

<table>
<thead>
<tr>
<th>Specified Bulb</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>23W</td>
<td>Back up lamp</td>
</tr>
<tr>
<td>23W</td>
<td>Turn signal lamp</td>
</tr>
<tr>
<td>23W</td>
<td>Stop lamp</td>
</tr>
<tr>
<td>7W</td>
<td>Tail lamp</td>
</tr>
<tr>
<td></td>
<td>Rear combination lamp</td>
</tr>
<tr>
<td></td>
<td>Bulb capacity</td>
</tr>
</tbody>
</table>

**Rear Combination Lamps**
Removal

Loosen the wing nuts on the meter brackets (1) and (2) in Figure BE-14, on the upper and lower sides of the reverse side of the speedometer, and withdraw the speedometer from the instrument panel.

Note: When loosening the wing nuts, use a pair of pliers.

b. In order to facilitate the operation, remove the heater air duct.

c. See Figure BE-15 for details of the speedometer support bracket and mounting bracket.
**WATER TEMPERATURE GAUGE**

The water temperature gauge and oil pressure gauge are combined. The water temperature gauge indicates water temperature in range from 120 to 250°F, and oil pressure gauge indicates oil pressure in range from 0 to 140 lb/ft². A voltage regulator (meter regulator) is built in the meter unit to compensate thermal effect.

**OIL PRESSURE GAUGE**

**TACHOMETER**

Yellow zone: 6,500 to 7,000 rpm
Red zone: 7,000 to 8,000 rpm

(Engine rpm: Indicated in range 0 to 8000 rpm)

Remove the tachometer in the same manner as for the speedometer.

**Removal**

1. Remove the center console finisher.

**Note:** See Figure BE-17 for details of the tachometer support bracket and mounting bracket.
Fig. BE-22  Removing ammeter and fuel gauge

Remove the instrument panel of console. Inserting hand into the opening where the center cross-headed screws have been removed, loosen hexagonal console fixture has been removed. Loosen hexagonal

Fig. BE-21  Removing water temperature gauge and oil pressure gauge from reverse side of meter.

Fig. BE-20  Removing center console fixture
ILLUMINATION CONTROL

Fig. 5E-24 Circuit diagram of instrument unit

(Speedometer, Tachometer, Ammeter, Oil Pressure Gauge and Others)

INSTRUMENT UNIT CIRCUIT DIAGRAM

BODY
## TROUBLE DIAGNOSES AND CORRECTIONS

<table>
<thead>
<tr>
<th>Troubles</th>
<th>Possible causes</th>
<th>Method of inspection</th>
<th>Corrective action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speedometer</td>
<td>Broken speedometer cable</td>
<td>Check the drive gear</td>
<td>Replace the drive gear and pinion assembly.</td>
</tr>
<tr>
<td></td>
<td>Rusted speedometer</td>
<td>Check the drive gear</td>
<td>Replace the cable.</td>
</tr>
<tr>
<td></td>
<td>Speedometer cable connection</td>
<td>Check the drive gear</td>
<td>Replace the speedometer.</td>
</tr>
<tr>
<td></td>
<td>Speedometer unit</td>
<td>Check the drive gear</td>
<td>Replace the meter.</td>
</tr>
<tr>
<td></td>
<td>Improperly tightened speedometer</td>
<td>Check the drive gear</td>
<td>Retighten or repair if required.</td>
</tr>
<tr>
<td></td>
<td>Defective speedometer</td>
<td>Check the drive gear</td>
<td>Replace the speedometer.</td>
</tr>
</tbody>
</table>

- **pointer operates excessively:**
  - Broken speedometer drive gear
  - Defective speedometer
  - Rusted cable
  - Improperly tightened speedometer (checked excessively)
  - Defective speedometer
  - Damaged speedometer drive gear
  - Defective speedometer

- **pointer unstable:**
  - Improperly tightened speedometer (checked excessively)
  - Defective speedometer
  - Damaged speedometer drive gear
  - Defective speedometer

- **unusual noise:***
  - Excessively bent speedometer cable, lack of lubricant, or twisted speedometer cable.
  - Defective speedometer
<table>
<thead>
<tr>
<th>Water temperature gauge</th>
<th>Fuel gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Blown off fuse</strong></td>
<td><strong>Blown off fuse</strong></td>
</tr>
<tr>
<td>Defective meter unit or faulty wiring</td>
<td>Defective meter unit or wiring</td>
</tr>
<tr>
<td>Replace the thermal transmitter.</td>
<td>Replace the tank unit.</td>
</tr>
<tr>
<td>Apply a test lamp (approximately 12V in series to the lead wire [yellow/white] which is connected to the thermal transmitter, and ground another wire from the test lamp. Then, if the pointer deflects, replace the fuse.</td>
<td>Apply a test lamp (12V in series to the lead wire in series and ground the tank. Then, if the pointer deflects, replace the tank unit.</td>
</tr>
<tr>
<td>When the source switch is closed, the pointer does not deflect.</td>
<td>The pointer indicates a point constantly regardless of actual fuel level.</td>
</tr>
<tr>
<td>Repair the wiring.</td>
<td>Correct the wiring.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
WINDSHIELD WIPER

<table>
<thead>
<tr>
<th>Function</th>
<th>Voltage</th>
<th>Test Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulator/Attenuator</td>
<td>Voltage</td>
<td>Ammeter</td>
</tr>
<tr>
<td>Repair the voltage</td>
<td>Measure the attenuator charging (45V)</td>
<td>Current meter</td>
</tr>
<tr>
<td>Replace the meter unit</td>
<td>DC12V</td>
<td>Detector meter unit or winding</td>
</tr>
</tbody>
</table>

DIAGRAM

BODY ELECTRICAL
Windshield wiper instaling position

<table>
<thead>
<tr>
<th>Less than 2.5A</th>
<th>Less than 2.5A</th>
<th>Locking current</th>
<th>Locking torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>or breaker</td>
<td>or breaker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>125 Kgf.cm (117.2 in.lb)</td>
<td>135 Kgf.cm (111.7 in.lb)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 3.5A</td>
<td>Less than 3.5A</td>
<td>Locking current</td>
<td>Locking torque</td>
</tr>
<tr>
<td>60 rpm</td>
<td>40 rpm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 2.5A</td>
<td>Less than 2.5A</td>
<td>Locking current</td>
<td>Locking torque</td>
</tr>
<tr>
<td>60 rpm</td>
<td>40 rpm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 2.5A</td>
<td>Less than 2.5A</td>
<td>Locking current</td>
<td>Locking torque</td>
</tr>
<tr>
<td>70 rpm</td>
<td>52 rpm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 2.5A</td>
<td>Less than 2.5A</td>
<td>Locking current</td>
<td>Locking torque</td>
</tr>
<tr>
<td>78 rpm</td>
<td>56 rpm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIGH</td>
<td>LOW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 8V</td>
<td>Fence voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.5V</td>
<td>Test voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12V</td>
<td>Rated voltage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Motor performance

<table>
<thead>
<tr>
<th>Arm installation method</th>
<th>Tapered section</th>
<th>Blade length</th>
<th>Rise-up angle</th>
<th>Writing angle</th>
<th>Parallel interlock system (Tandem type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G46 mm (18 in)</td>
<td>480 mm (19 in)</td>
<td>40 degrees</td>
<td>50 degrees</td>
<td>90 degrees</td>
<td></td>
</tr>
</tbody>
</table>
PRECAUTIONS FOR USE OF WINDSHIELD WASHER

Adjut ing w at er nozzle

Fig. Be.20 Structural view of windshield washer

REMOVAL

8E-18

WINDSHIELD WASHER

CORRECTIONS

Trouble Diagnoses and

8E-19

BE-18

CONTENT

BODY
<table>
<thead>
<tr>
<th>TROUBLE DIAGNOSES AND CORRECTIONS</th>
<th>Method of inspection</th>
<th>Corrective action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Possible causes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blown off fuse</td>
<td>Check the fuse box.</td>
<td>Replace fuse if required.</td>
</tr>
<tr>
<td>Improper contact of each</td>
<td>Check the motor unit and switch unit for proper joint contact.</td>
<td>Correct if required.</td>
</tr>
<tr>
<td>Lead wire joint</td>
<td>Connect (+) and (-) terminals of the battery respectively to motor lead wires (blue) and (yellow) with separate wires. If the motor operates, replace fuse. If not, replace the motor with a new one.</td>
<td></td>
</tr>
<tr>
<td>Defective washer motor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorrect piping</td>
<td>With the windshield washer switch turned on, measure voltage between two motor leads wires, and if the battery voltage is not detected, check the individual joints.</td>
<td>Correct.</td>
</tr>
<tr>
<td>Lack of washer fluid</td>
<td>Check fluid level in tank.</td>
<td>Refill fluid.</td>
</tr>
<tr>
<td>Defective switch.</td>
<td>With the windshield washer switch turned off, check the circuit between the wiper switch (yellow/blue) and (black) terminals for continuity. If there is no continuity, the switch is defective.</td>
<td>Replace the switch with a new one.</td>
</tr>
<tr>
<td>Short circuit.</td>
<td>Check wiring.</td>
<td>Repair wiring.</td>
</tr>
<tr>
<td>Fluid does not come out.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No motor operating sound</td>
<td>Motor operating sound is audible.</td>
<td></td>
</tr>
<tr>
<td>Fluid does not come out.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The windshield washer does not stop.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Combination Switch Connection Chart

<table>
<thead>
<tr>
<th>Windshield wiper switch</th>
<th>Lighting switch</th>
<th>Passing switch</th>
<th>Windshield wiper switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7 to 1.3 kg (1.54 to 2.87 lb)</td>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
</tr>
<tr>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
</tr>
<tr>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
<td>0.2 to 0.6 kg (0.44 to 1.32 lb)</td>
</tr>
</tbody>
</table>

Each switch operates force

Combination Switch is split into two com-

Parts: one consists of lighting switch, wiper switch, and windshield wiper switch, and the other consists of

Combination Switch (Push-button type)

1. Turn signal switch
2. Turn signal switch
3. Dimmer switch
4. Dimmer switch
5. 2-speed (turn)
6. Windshield wiper switch
7. 2-speed (turn)
8. Windshield wiper switch
9. Windshield wiper switch
10. Lighting switch
11. Lighting switch
12. Lighting switch
13. Lighting switch
14. Lighting switch
15. Lighting switch
16. Lighting switch
17. Lighting switch
18. Lighting switch
19. Lighting switch
20. Lighting switch
21. Lighting switch
22. Lighting switch
23. Lighting switch
24. Lighting switch
25. Lighting switch
26. Lighting switch
27. Lighting switch
28. Lighting switch
29. Lighting switch
30. Lighting switch
31. Lighting switch
32. Lighting switch
33. Lighting switch
34. Lighting switch
35. Lighting switch
36. Lighting switch
37. Lighting switch
38. Lighting switch
39. Lighting switch
40. Lighting switch
41. Lighting switch
42. Lighting switch
43. Lighting switch
44. Lighting switch
45. Lighting switch
46. Lighting switch
47. Lighting switch
48. Lighting switch
49. Lighting switch
50. Lighting switch
51. Lighting switch
52. Lighting switch
53. Lighting switch
54. Lighting switch
55. Lighting switch
56. Lighting switch
57. Lighting switch
58. Lighting switch
59. Lighting switch
60. Lighting switch

Body
The steering lock is combined with the ignition switch.

**Fig. BE-35**

When removing, use the turn signal switch position screw to remove the installation screw from the switch boss. This switch is a turn signal switch. When removing.

**Fig. BE-36**

Steering Lock

**HAZARD SWITCH**

**Fig. BE-34**

<table>
<thead>
<tr>
<th></th>
<th>Right</th>
<th>Neutral</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Neutral</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Left</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Condition table of turn signal switch:

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Rear</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Condition table of dimmer switch:

<table>
<thead>
<tr>
<th></th>
<th>Dimmer</th>
<th>Main</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimmer</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Main</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

(2) Turn signal / lever side
The horn relay is installed on the left side of the panel.

The horn is installed in the assistant side facing forward front.

The horn is installed on the top of the instrument panel.

The horn is installed on the driver side and low tone horn is installed in the assistant side facing forward front.

Troubleshooting:

Correcting horn volume.

CONTENTS

HORN AND HORN RELAY

Fig. BE-37 Removing warning buzzer

WARNING BUZZER

Body

Warning buzzer installation:

Lock side mirror switch cable, and remove two wiring harness when removing the warning buzzer. Disconnect steering

The warning buzzer is installed on the steering support.

If operates if the door is unlocked with the key inserted.

WARNING BUZZER
Trouble Diagnoses and Corrections

Fig. BE-40. Adjusting horn volume

1. Apply voltmeter and connect cables as shown in Figure BE-39.

2. Turn on the switch, make sure that the voltmeter indicates 12 to 12.5 volts, and adjust as described below so that the ammeter indicates approximately 3 A.

3. Lock nut in reverse side of the body.

4. When a proper volume is obtained, adjust the horn so that the real tone of the horn is heard.

5. A proper sound obtaining at range from 12 to 15 V is obtained.

6. Further adjust the volume to better sound.

7. Turn the lock nut in clockwise to adjust volume and current reduce.

8. Turn the lock nut in counterclockwise to adjust volume and current increase.

Fig. BE-39. Circuit diagram of horn

- Connect the horn terminals (A) and (B) are short terminated, but sounds when the horn is depressed.
- The horn does not sound when the battery is normal.
- Excessively discharged battery.
- The horn does not operate.
- The horn does not sound although current is discharged.

Corrective action

- Measure specific gravity of electrot.
- Change charging.
- Possible causes

Troubles

Body Electrical
<table>
<thead>
<tr>
<th>BODY</th>
<th>CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improper horn button contact</td>
<td></td>
</tr>
<tr>
<td>Defective horn relay</td>
<td></td>
</tr>
<tr>
<td>Defective horn</td>
<td></td>
</tr>
<tr>
<td>Blown off fuse</td>
<td></td>
</tr>
<tr>
<td>The horn does not sound although the horn relay terminals (B) and (H) are short-circuited, and the horn is still not sounded: although the battery (+) terminal is connected to the horn terminal directly. When the horn sounds through the above inspection, check the fuse for wear, fusing, or improper contact.</td>
<td>Replace horn relay.</td>
</tr>
<tr>
<td>The horn does not stop although the horn relay (S) terminal is disconnected. When the horn stops through the above disconnection, check the horn button unit carefully.</td>
<td>Replace horn button (Switch).</td>
</tr>
<tr>
<td>Reduced volume and/or tone quality</td>
<td></td>
</tr>
<tr>
<td>Improper fuse wire contact</td>
<td></td>
</tr>
<tr>
<td>Broken cable</td>
<td></td>
</tr>
<tr>
<td>Improper horn button contact</td>
<td></td>
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<tr>
<td>Worn horn point</td>
<td></td>
</tr>
<tr>
<td>Broken resistance circuit cable</td>
<td></td>
</tr>
</tbody>
</table>

**RADIO**

- Installation
- Installation specifications
- Antenna specifications
- Antenna switch circuit
Radio Specifications

Hiachi, Ltd.

Installation

1. Install the antenna into the antenna installation hole on the rear decker of the car body.

2. Install the antenna mounting bracket on the body, with the speaker installed on the bracket. Install the speaker mounting on the speaker mounting bracket.

3. Install the antenna upper unit from the outside of the side compartment.

Fig. BE-42 Installing speaker and antenna

<table>
<thead>
<tr>
<th>No.</th>
<th>Part</th>
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<tbody>
<tr>
<td>1</td>
<td>Speaker cable</td>
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<tr>
<td>2</td>
<td>Speaker cover</td>
</tr>
<tr>
<td>3</td>
<td>Speaker mounting bracket</td>
</tr>
<tr>
<td>4</td>
<td>Speaker</td>
</tr>
<tr>
<td>5</td>
<td>Antenna cable</td>
</tr>
</tbody>
</table>

Specifications:
- 10 transistors, 5 diodes, and 2 transistors
- 12V (-) grounded
- 0.60 mA
- 130 mm (5.12 inch) P.C. type (Impedance: 4 Ω)
- 6W
- Maximum output: Less than 20 dB

BODY
Fig. BE-45 Installing clock

Fig. BE-44 Circuit diagram of auto-antenna

## CLOCK

### Antenna specifications

<table>
<thead>
<tr>
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<th>KO-74</th>
<th>Model</th>
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<tr>
<td>Locking current</td>
<td>Less than 6 A</td>
<td>Range</td>
</tr>
<tr>
<td>Operating voltage</td>
<td>9 V</td>
<td>Less than 6 A</td>
</tr>
<tr>
<td></td>
<td>10.5 to 16.0 V</td>
<td>Read current</td>
</tr>
<tr>
<td></td>
<td>12 V (–) Grounded</td>
<td>Read voltage</td>
</tr>
</tbody>
</table>

### Auto-antenna switch circuit

![Diagram of auto-antenna switch circuit]
Adjusting clock

Installation

1. Remove the center console finisher.
2. Remove the radio mask, and install the clock thereon.
3. Secure the radio bracket on the L-shaped bracket in the instrument panel side with screws.

Fig. BE-46 Clock

Fig. BE-47 Adjusting clock

Remove the vinyl cover, and adjust the adjusting screw shown in the above figure. When the adjusting screw is turned to "F", the clock gain and retard often turned to "S". Recommend the adjustment be not made unless the clock is out of order considerably.

Be sure to reinstall the vinyl cover after adjustment.

(The vinyl cover protects the clock from dust and other foreign matters.)
CLUTCH AND TRANSMISSION

SPECIAL SERVICE TOOL
<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Description</th>
<th>Figure</th>
<th>Tool Number</th>
<th>Tool Name</th>
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</thead>
<tbody>
<tr>
<td>510</td>
<td>Special</td>
<td>100</td>
<td>Figure 1</td>
<td>ST30600000</td>
<td>374420000</td>
</tr>
<tr>
<td>510</td>
<td>Special</td>
<td>130</td>
<td>Figure 2</td>
<td>ST33800000</td>
<td>374420000</td>
</tr>
<tr>
<td>510</td>
<td>Special</td>
<td>160</td>
<td>Figure 3</td>
<td>ST49300000</td>
<td>374420000</td>
</tr>
</tbody>
</table>

**Figure 1**: Main drive gear for assembly of the transmission plate. (ST374420000)

**Figure 2**: Transmission plate adapter. (ST374420000)

**Figure 3**: Diaphragm spring holder. (ST49300000)

**Figure 4**: Center plate. (ST20500000)
<table>
<thead>
<tr>
<th>Tool number (Former tool number)</th>
<th>Tool name</th>
<th>Description</th>
<th>Figure</th>
<th>Differential carrier</th>
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</thead>
<tbody>
<tr>
<td>ST23500000</td>
<td>ST23500000</td>
<td>For assembly of the counter bearing</td>
<td>130 HA30 R</td>
<td>ST062700000 (ST37405010)</td>
</tr>
<tr>
<td>ST25300000</td>
<td>ST25300000</td>
<td>For removal of the control arm retaining pin</td>
<td>130 HA30 R</td>
<td>Gear carrier, strut, gear box attachment</td>
</tr>
<tr>
<td>ST23500000</td>
<td>ST23500000</td>
<td>For removal of the fork rod retaining pin</td>
<td>130 HA30 R</td>
<td></td>
</tr>
<tr>
<td>Figure</td>
<td>Model</td>
<td>Description</td>
<td>Tool Name</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>P6. Pd-21 510 C30</td>
<td>Drive Pylon Collar (ST49280000 ST3500000)</td>
<td>157 (6.2&quot;)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P6. Pd-19 510</td>
<td>Guard Assembly (ST49320000 ST31210000)</td>
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<td></td>
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<tr>
<td>P6. Pd-10 510 C30</td>
<td>Drive Pylon Outer (ST49290000 ST3060000)</td>
<td>48 dm (1.89 dm)</td>
<td></td>
<td></td>
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<tr>
<td>P6. Pd-20</td>
<td>510 C30 C10</td>
<td>Drive Pylon Rear (ST49300000 ST3500000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Figure</td>
<td>Part No.</td>
<td>Description</td>
<td>Diagram</td>
<td>Tool Name (Tool number)</td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
<td>-------------</td>
<td>---------</td>
<td>------------------------</td>
</tr>
<tr>
<td>P8-PD-14</td>
<td>510 C30</td>
<td>Seal for assembly of the oil seal</td>
<td><img src="image1" alt="Seal Diagram" /></td>
<td>(ST49320000) 0313320000</td>
</tr>
<tr>
<td>P8-PD-17</td>
<td>310 C30</td>
<td>Bearing for assembly of the side</td>
<td><img src="image2" alt="Bearing Diagram" /></td>
<td>(ST49920000) 0313330000</td>
</tr>
<tr>
<td>P8-PD-11</td>
<td>310 C30</td>
<td>Adaptor for disassembly of the side bearing</td>
<td><img src="image3" alt="Adaptor Diagram" /></td>
<td>(ST44682000) 0313030200</td>
</tr>
<tr>
<td>P8-PD-21</td>
<td>130 C30</td>
<td>Dummy spacer</td>
<td><img src="image4" alt="Dummy Spacer Diagram" /></td>
<td>(ST49660000) 0318550000</td>
</tr>
<tr>
<td>P8-PD-27</td>
<td>130 C30</td>
<td>521</td>
<td>130 C30</td>
<td>(ST47340000) 0313530000</td>
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<tr>
<td>FIG.</td>
<td>DESCRIPTION</td>
<td>MODEL</td>
<td>SPECIFICATION</td>
<td>TOOL NAME</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>-------</td>
<td>---------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Pd-1</td>
<td>For removal of pinion &amp; control arm</td>
<td>C10</td>
<td>ST47270000</td>
<td>ST47270000</td>
</tr>
<tr>
<td>Pd-2</td>
<td>Luge stand &amp; retainer</td>
<td>C30</td>
<td>ST49230000</td>
<td>ST49230000</td>
</tr>
<tr>
<td>Pd-3</td>
<td>Side returner</td>
<td>C30</td>
<td>ST3710000</td>
<td>ST3710000</td>
</tr>
<tr>
<td>Pd-4</td>
<td>Seal for disassembly of the oil</td>
<td>C30</td>
<td>ST3320000</td>
<td>ST3320000</td>
</tr>
<tr>
<td>Pd-5</td>
<td>Tool name (format: tool number)</td>
<td>C30</td>
<td>ST49240000</td>
<td>ST49240000</td>
</tr>
<tr>
<td>FIG.</td>
<td>PD-2.2</td>
<td>New</td>
<td>0</td>
<td>Side Retainer Guide</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>-----</td>
<td>---</td>
<td>---------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(79.5 dia. (3.13 dm))</td>
</tr>
<tr>
<td>FIG.</td>
<td>PD-1.3</td>
<td>New</td>
<td></td>
<td>Adapter</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(81.4 dia. (3.21 dm))</td>
</tr>
<tr>
<td>FIG.</td>
<td>PD-8</td>
<td>New</td>
<td></td>
<td>Pilot Bearing Drill</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(32.0 dia. (1.26 dm))</td>
</tr>
</tbody>
</table>

Coil spring max. dia. 155 (6.1"
Strake 50 to 239 (1.97 to 9.4"
Spring of the coil spring
For assembly and disassembly of the tool name (Tool number)
Tool number (Format: tool number/figure)
Description
FIG. (inch)
mm (inch)
Applied model
S/N. Item
Tool number
SERVIC.E EQUIPMENT

Front axle and suspension
<table>
<thead>
<tr>
<th>Tool number/Tool name</th>
<th>Tool name</th>
<th>Description</th>
<th>Figure</th>
<th>Unit (inch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST35540000</td>
<td>Gland packing guide</td>
<td>For assembly of the gland packing</td>
<td><img src="image1.png" alt="Figure" /></td>
<td>88 (3.50)</td>
</tr>
<tr>
<td>ST35500000 (ST49130000)</td>
<td>Gland packing wrench</td>
<td>For tightening gland packing</td>
<td><img src="image2.png" alt="Figure" /></td>
<td>Width across flats: 55 (2.17)</td>
</tr>
<tr>
<td>ST36770000</td>
<td>Front transverse link bushing replacer</td>
<td>For assembly and disassembly</td>
<td><img src="image3.png" alt="Figure" /></td>
<td>24.5 (0.96)</td>
</tr>
<tr>
<td>ST33300000</td>
<td>Front wheel bearing drift</td>
<td>For assembly of the front wheel bearing</td>
<td><img src="image4.png" alt="Figure" /></td>
<td>41.9 (1.63)</td>
</tr>
</tbody>
</table>
### Rear axle and suspension

<table>
<thead>
<tr>
<th>FIG. No</th>
<th>Description</th>
<th>FIGURE</th>
<th>Tool name</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA-11</td>
<td>Drive shaft snap ring</td>
<td>220 (A.7)</td>
<td>ST49210000 (ST33690000)</td>
</tr>
<tr>
<td>New</td>
<td>Transverse link bushing</td>
<td>24.5 dia. (1.34 dia.)</td>
<td>ST38800000</td>
</tr>
<tr>
<td>FIG. RA-5</td>
<td>Rear Transverse link bushing replace</td>
<td>24.5 dia. (1.34 dia.)</td>
<td></td>
</tr>
<tr>
<td>C30</td>
<td>Insulator mounting member Rear of case Differential mount differential case</td>
<td>62.5 dia. (2.44 dia.)</td>
<td>ST41500000 (ST33260000)</td>
</tr>
<tr>
<td>FIG. RA-6</td>
<td>FIG. RA-21</td>
<td>80.8 dia. (3.18 dia.)</td>
<td>ST47900000 (ST107690000)</td>
</tr>
<tr>
<td>510</td>
<td>Pitch dia. 11.4.3 (4.5) Rear axle stand</td>
<td>80.8 dia. (3.18 dia.)</td>
<td>ST107690000</td>
</tr>
</tbody>
</table>

#### Used parts

<table>
<thead>
<tr>
<th>FIG. No</th>
<th>Description</th>
<th>FIGURE</th>
<th>Tool name</th>
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</thead>
<tbody>
<tr>
<td>FIG. RA-5</td>
<td>Rear Transverse link bushing replace</td>
<td>24.5 dia. (1.34 dia.)</td>
<td>ST38800000</td>
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</table>

#### Tool Set

<table>
<thead>
<tr>
<th>FIG. No</th>
<th>Description</th>
<th>FIGURE</th>
<th>Tool name</th>
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</thead>
<tbody>
<tr>
<td>FIG. RA-5</td>
<td>Rear Transverse link bushing replace</td>
<td>24.5 dia. (1.34 dia.)</td>
<td>ST38800000</td>
</tr>
<tr>
<td>Tool number</td>
<td>Tool name</td>
<td>Description</td>
<td>Figure</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------</td>
<td>-------------</td>
<td>--------</td>
</tr>
<tr>
<td>ST08050000</td>
<td>Press fit tool</td>
<td>For assembly of the front oil seal retainer</td>
<td>C30</td>
</tr>
<tr>
<td>ST08060000</td>
<td>Master-vac. wrench set</td>
<td>For disassembly of the master-vac.</td>
<td>C30</td>
</tr>
<tr>
<td>ST08070000</td>
<td>Rear axle shaft outer bearing drift</td>
<td>For assembly of the rear wheel bearing (outer side)</td>
<td></td>
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</table>

**CHASSIS**

**Body electrical**

- Tumbler switch replacer
- Tool box for special service tool set
<table>
<thead>
<tr>
<th>SERVICE JOURNAL or BULLETIN REFERENCE</th>
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<tbody>
<tr>
<td>SUBJECT</td>
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