

## GENERAL INFORMATION

# SECTION GI

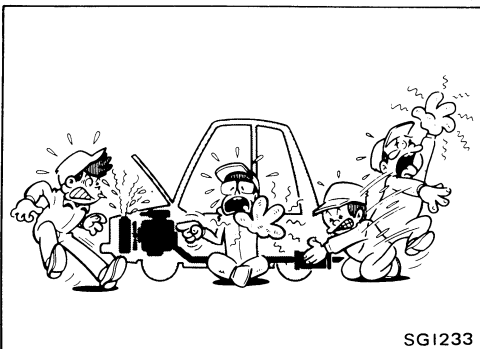
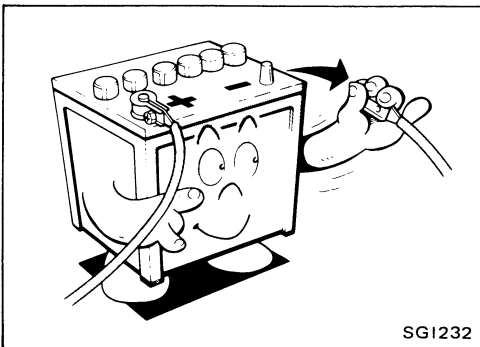
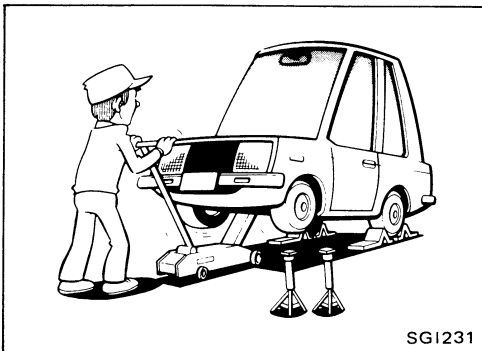
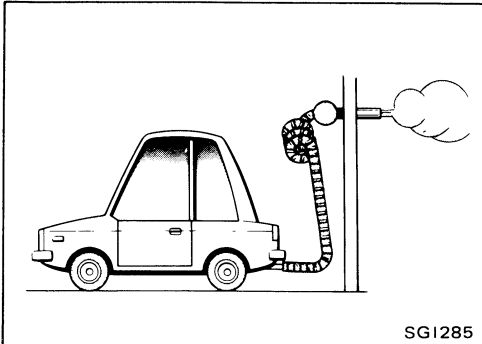
GI

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## PRECAUTIONS

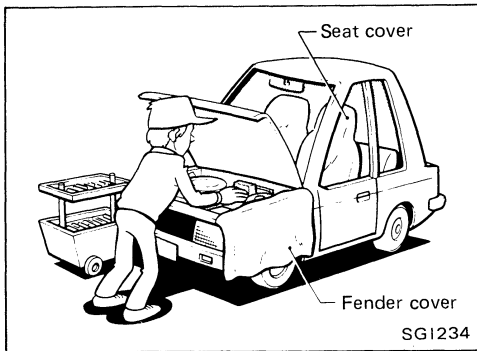
The following precautions should be observed to ensure safe and proper service operations. These precautions are not described in each individual section.



1. Do not operate the engine for an extended period of time without proper exhaust ventilation.  
Keep the work area well ventilated and free of any inflammable materials. Special care should be taken when handling any inflammable or poisonous materials, such as gasoline, refrigerant gas, etc. When working in a pit or other enclosed area, be sure to properly ventilate the area before working with hazardous materials.  
Do not smoke while working on the vehicle.
2. Before jacking up the vehicle, apply wheel chocks or other tire blocks to the wheels to prevent the vehicle from moving. After jacking up the vehicle, support the vehicle weight with safety stands at the points designated for proper lifting and towing before working on the vehicle.  
These operations should be done on a level surface.
3. When removing a heavy component such as the engine or transaxle/transmission, take care not to lose your balance and drop it. Also, do not allow it to hit against adjacent parts, especially brake tube and brake master cylinder.
4. Before starting repairs which do not require battery power, always turn off the ignition switch, then disconnect the ground cable from the battery to prevent accidental short circuit.
5. To prevent serious burns, avoid contact with hot metal parts such as the radiator, exhaust manifold, tail pipe and muffler.  
Do not remove the radiator cap when the engine is hot.

## PRECAUTIONS

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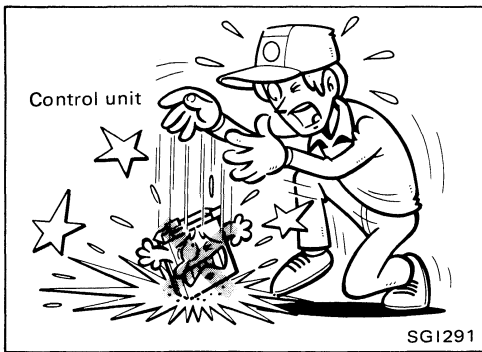


6. To prevent scratches and soiling, protect fenders, upholstery and carpeting with appropriate covers before starting servicing.

Take caution that keys, buckles or buttons on your person do not scratch the paint.

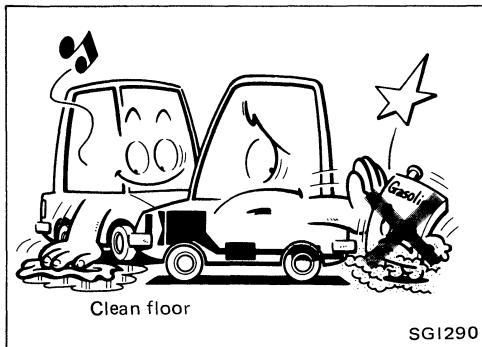
7. Clean all disassembled parts in the designated liquid or solvent prior to inspection or assembly.
8. Replace oil seals, gaskets, packings, O-rings, locking washers, cotter pins, self-locking nuts, etc. as instructed and discard used ones.
9. Tapered roller bearings and needle bearings should be replaced as a set of inner and outer races.
10. Arrange the disassembled parts in accordance with their assembled locations and sequence.
11. Do not touch the terminals of electrical components which utilize microcomputers such as electronic control units. Static electrical charges stored in your body may damage internal electronic components.
12. After disconnecting vacuum hose or air hose, attach tag which indicates the proper connection to prevent incorrect connection.
13. Use only the lubricants specified in the applicable section or those indicated under "Recommended Fuel and Lubricants".
14. Use approved bonding agent, sealants or their equivalents when required.
15. The use of the proper tools and recommended essential tools should be used where specified for proper, safe and efficient service repairs.
16. When effecting repairs on the fuel, oil, water, vacuum or exhaust systems, make certain to check all affected lines for leaks.
17. Dispose of drained oil or the solvent used for cleaning parts in an appropriate manner.

## PRECAUTIONS



### Precautions for E.F.I. or E.C.C.S. Engine

1. Before connecting or disconnecting E.F.I. or E.C.C.S. harness connector to or from any E.F.I. or E.C.C.S. control unit, be sure to turn the ignition switch to the "OFF" position and disconnect the negative battery terminal. Otherwise, there may be damage to control unit.
2. Before disconnecting pressurized fuel line from fuel pump to injectors, be sure to release fuel pressure to eliminate danger.
3. Be careful not to jar components such as control unit and air flow meter.



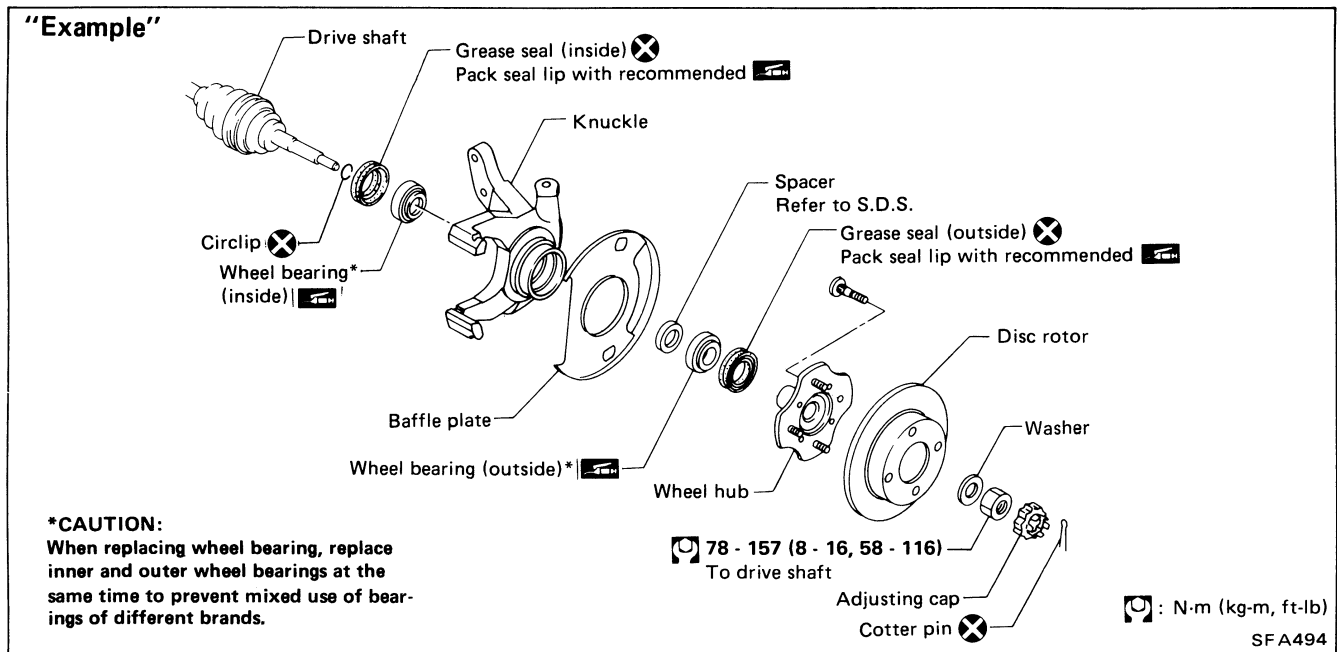
### Precautions for a Catalyst

If a large amount of unburned fuel flows into the converter, the converter temperature will be excessively high. To prevent this, follow the procedure below.

1. Use unleaded gasoline only. Leaded gasoline will seriously damage the catalytic converter.
2. When checking for ignition spark or measuring engine compression, make tests quickly and only when necessary.
3. Do not run engine when the fuel tank level is low, otherwise the engine may misfire causing damage to the converter.
4. Do not place the vehicle on inflammable material. Keep inflammable material off the exhaust pipe.

## HOW TO USE THIS MANUAL

1. **A QUICK REFERENCE INDEX**, a black tab (e.g. **FA** ) is provided on the first page. You can quickly find the first page of each section by mating it to the section's black tab.
2. **THE CONTENTS** are listed on the first page of each section.
3. **THE TITLE** is indicated on the upper portion of each page and shows the part or system.
4. **THE PAGE NUMBER** of each section consists of two letters, which designate the particular section, and a number (e.g. "FA-5").
5. **THE LARGE ILLUSTRATION** is an exploded view (See below) and contains tightening torques, lubrication points and other information necessary to perform repairs.  
The illustration should be used in reference to the service matters only. When ordering parts, refer to the appropriate **PARTS CATALOG**.



6. **THE SMALL ILLUSTRATION** shows the important steps such as inspection, use of special tools, knacks of work and hidden or tricky steps which are not shown in the previous large illustration. Assembly, inspection and adjustment procedures for the complicated units such as the automatic trans-axle or transmission, etc. are presented in a step-by-step format where necessary.
7. The followings **SYMBOLS AND ABBREVIATIONS** are used:

- : Tightening Torque
- : Should be lubricated with grease.  
Unless otherwise indicated, use recommended multi-purpose grease.
- : Should be lubricated with oil.
- : Sealing point
- : Checking point
- : Always replace when disassembled.

- S.D.S.: Service Data and Specifications
- L.H., R.H.: Left-Hand, Right-Hand
- M/T: Manual Transaxle/Transmission
- A/T: Automatic Transaxle/Transmission
- Tool: Special Service Tools

## HOW TO USE THIS MANUAL

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8. The **UNITS** given in this manual are primarily expressed with the SI UNIT (International System of Unit), and alternately expressed in the metric system and in the yard/pound system.

**“Example”**

**Tightening torque**

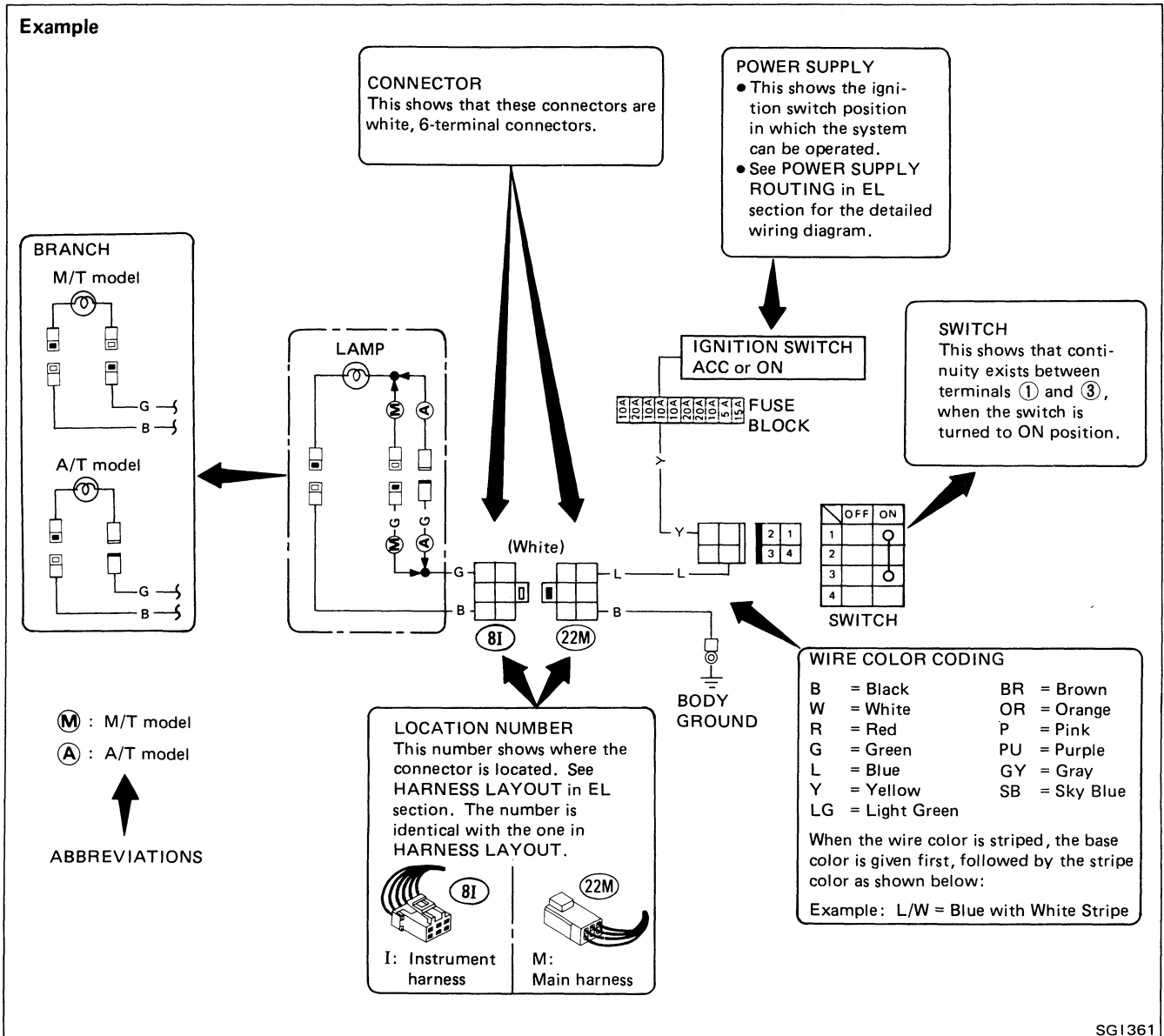
59 - 78 N·m (6.0 - 8.0 kg-m, 43 - 58 ft-lb)

9. **TROUBLE DIAGNOSES AND CORRECTIONS** are included in sections dealing with complicated components.
10. **SERVICE DATA AND SPECIFICATIONS** is contained at the end of each section for quick reference of data.
11. The captions **WARNING** and **CAUTION** warn you of steps that must be followed to prevent personal injury and/or damage to some part of the vehicle.

# HOW TO READ WIRING DIAGRAMS

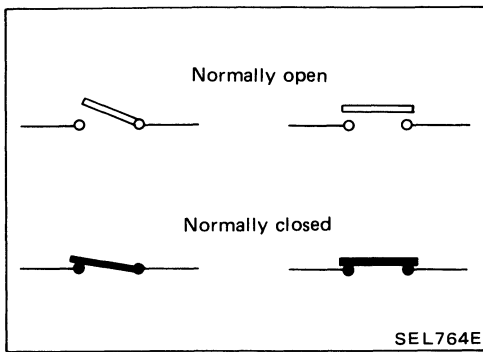
## WIRING DIAGRAM

Symbols used in WIRING DIAGRAM are shown below.



SG1361

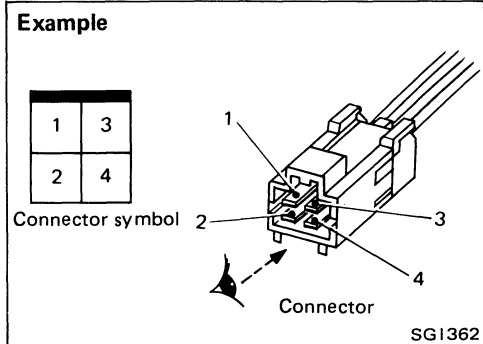
## HOW TO READ WIRING DIAGRAMS



### SWITCH POSITIONS

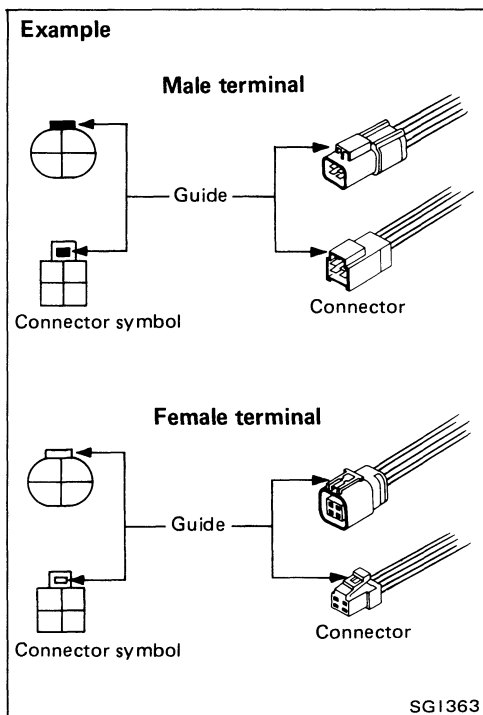
Wiring diagram switches are shown with the vehicle in the following condition:

- Ignition switch "OFF".
- Doors, hood and trunk lid/back door closed.
- Pedals are not depressed and parking brake is released.



### CONNECTOR SYMBOLS

- All connector symbols in wiring diagrams are shown from the terminal side.



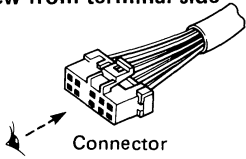
- Male and female terminals  
Connector guides for male terminals are shown in black and female terminals in white in wiring diagrams.



HOW TO READ WIRING DIAGRAMS

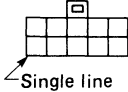
**Example**

**View from terminal side**




Connector

Connector symbol



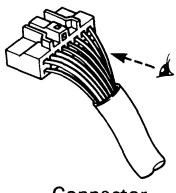
Single line

Direction mark



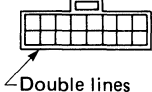
**T.S.**

**View from harness side**




Connector

Connector symbol



Double lines

Direction mark



**H.S.**

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DIRECTION MARK

A direction mark is shown to clarify the side of connector (terminal side or harness side). Direction marks are mainly used in the illustrations indicating terminal inspection.



: View from terminal side . . . T.S.

- All connector symbols shown from the terminal side are enclosed by a single line.



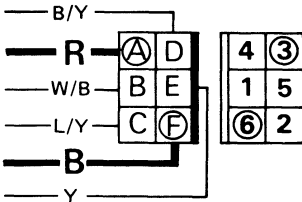
: View from harness side . . . H.S.

- All connector symbols shown from the harness side are enclosed by double lines.

MULTIPLE SWITCH

The continuity of the multiple switch is identified in the switch chart in wiring diagrams.

**Example**



**WIPER SWITCH**

|   | OFF | INT | LO | HI | WASH |
|---|-----|-----|----|----|------|
| 1 |     |     |    |    | ○    |
| 2 |     |     |    | ○  |      |
| 3 | ○   | ○   | ●  |    |      |
| 4 | ○   | ○   |    |    |      |
| 5 |     | ○   |    |    |      |
| 6 |     | ○   | ●  | ○  | ○    |

**Continuity circuit of wiper switch**

| SWITCH POSITION | CONTINUITY CIRCUIT |
|-----------------|--------------------|
| OFF             | 3 - 4              |
| INT             | 3 - 4, 5 - 6       |
| LO              | 3 - 6              |
| HI              | 2 - 6              |
| WASH            | 1 - 6              |

Example: Wiper switch in LO position  
Continuity circuit: Red wire – (A) terminal – (3) terminal – Wiper switch (● – ● : LO) – (6) terminal – (F) terminal – Black wire

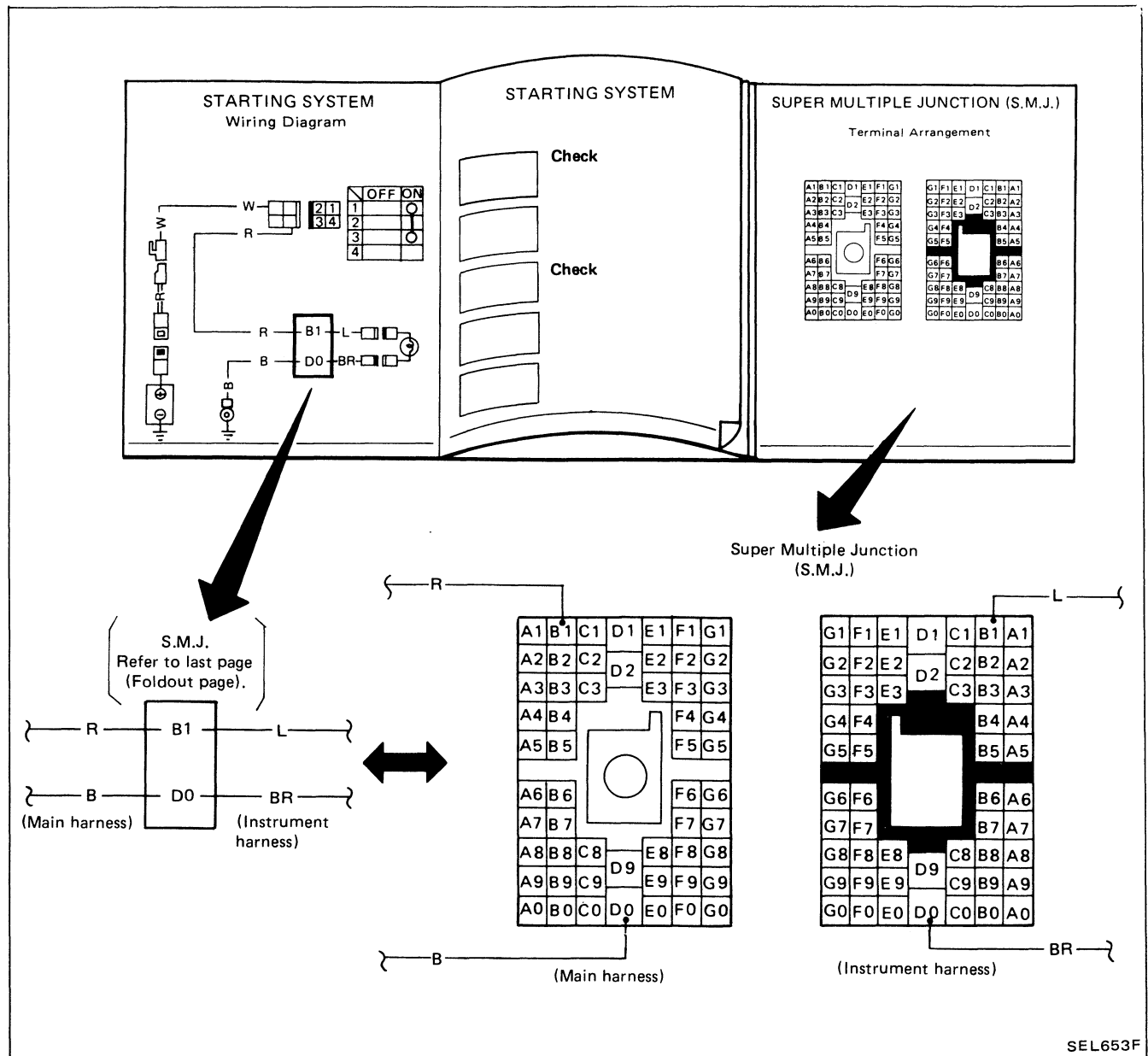
SGI365

## HOW TO READ WIRING DIAGRAMS

### SUPER MULTIPLE JUNCTION (S.M.J.)

- The "S.M.J." indicated in wiring diagrams is shown in a simplified form. The terminal arrangement should therefore be referred to in the foldout at the end of the Service Manual.
- The foldout should be spread to read the entire wiring diagram.

"Example"



# IDENTIFICATION INFORMATION

## Model Variation

### 2-WHEEL DRIVE TRUCK

| Destination            | Engine               |             |     | Z24i     |            |                         |                          |             |                         | VG30i                    |   |   |
|------------------------|----------------------|-------------|-----|----------|------------|-------------------------|--------------------------|-------------|-------------------------|--------------------------|---|---|
|                        | Transmission         |             |     | F4W71C   | FS5W71C    | L4N71B<br>(Floor shift) | L4N71B<br>(Column shift) | FS5R30A     | E4N71B<br>(Floor shift) | E4N71B<br>(Column shift) |   |   |
|                        | Differential carrier |             |     |          |            |                         |                          |             |                         |                          |   |   |
| Non-California, U.S.A. | Body                 | Regular Cab | STD | H190A    | H190A      | H190A                   | H190A                    | H233B       | H233B                   |                          |   |   |
|                        |                      |             | E   | NLD21SEU | -          | -                       | NLD21SYEU                | -           | -                       |                          |   |   |
|                        |                      | King Cab    | E   | -        | KNLGD21FEU | KNLGD21KEU              | -                        | -           | -                       | -                        |   |   |
|                        |                      |             | SE  | -        | -          | -                       | -                        | KHLGD21PFEU | KHLGD21PKEU             | -                        | - |   |
| California, U.S.A.     | Body                 | Regular Cab | STD | NLD21SEV | -          | -                       | NLD21SYEV                | EHLGD21FEU  | EHLGD21YEU              |                          |   |   |
|                        |                      |             | E   | -        | NLD21FEV   | -                       | NLD21YEV                 | -           | -                       |                          |   |   |
|                        |                      | King Cab    | E   | -        | KNLGD21FEV | KNLGD21KEV              | -                        | -           | -                       | -                        |   |   |
|                        |                      |             | SE  | -        | -          | -                       | -                        | KHLGD21PFEV | KHLGD21PKEV             | -                        | - |   |
| Canada                 | Body                 | Regular Cab | STD | NLD21SEN | -          | -                       | -                        | EHLGD21FEV  | EHLGD21YEV              |                          |   |   |
|                        |                      |             | E   | -        | -          | -                       | NLD21YEN                 | -           | -                       | -                        |   |   |
|                        |                      | King Cab    | E   | -        | NLGD21FEN  | -                       | NLGD21YEN                | -           | -                       | -                        |   |   |
|                        |                      |             | SE  | -        | KNLGD21FEN | KNLGD21KEN              | -                        | -           | KHLGD21PFEN             | KHLGD21PKEN              | - | - |
|                        | Heavy duty           | E           | -   | -        | -          | -                       | EHLGD21FEN               | EHLGD21YEN  |                         |                          |   |   |

## IDENTIFICATION INFORMATION

### Model Variation (Cont'd)

#### 4-WHEEL DRIVE TRUCK

| Destination            | Engine       |                      | Z24i               |             | VG30i       |            |             |            |
|------------------------|--------------|----------------------|--------------------|-------------|-------------|------------|-------------|------------|
|                        | Transmission |                      | FS5W71C            |             | FS5R30A     |            | RE4R01A     |            |
|                        | Transfer     |                      | TX 10              |             | TX 10       |            | TX 10       |            |
|                        | Body         | Differential carrier | Front R180A        | Rear C200   | Front R200A | Rear H233B | Front R200A | Rear H233B |
| Non-California, U.S.A. | Regular Cab  | E                    | Standard wheelbase | NLYD21FEU   | HLYD21FEU   |            | HLYD21KEU   |            |
|                        | King Cab     | E                    | Long wheelbase     | KNLMD21FEU  | —           |            | —           |            |
|                        |              | SE                   |                    | —           | KHLM21PFEU  |            | KHLM21PKEU  |            |
| California, U.S.A.     | Regular Cab  | E                    | Standard wheelbase | NLYD21FEV   | HLYD21FEV   |            | HLYD21KEV   |            |
|                        | King Cab     | E                    | Long wheelbase     | KNLMD21FEV  | —           |            | —           |            |
|                        |              | SE                   |                    | —           | KHLM21PFEV  |            | KHLM21PKEV  |            |
| Canada                 | Regular Cab  | E                    | Standard wheelbase | NLYD21FEN   | —           |            | —           |            |
|                        |              | XE                   |                    | NLYD21JFEN  | —           |            | —           |            |
|                        | King Cab     | XE                   | Long wheelbase     | KNLMD21JFEN | —           |            | —           |            |
|                        |              | SE                   |                    | —           | KHLM21PFEN  |            | KHLM21PKEN  |            |

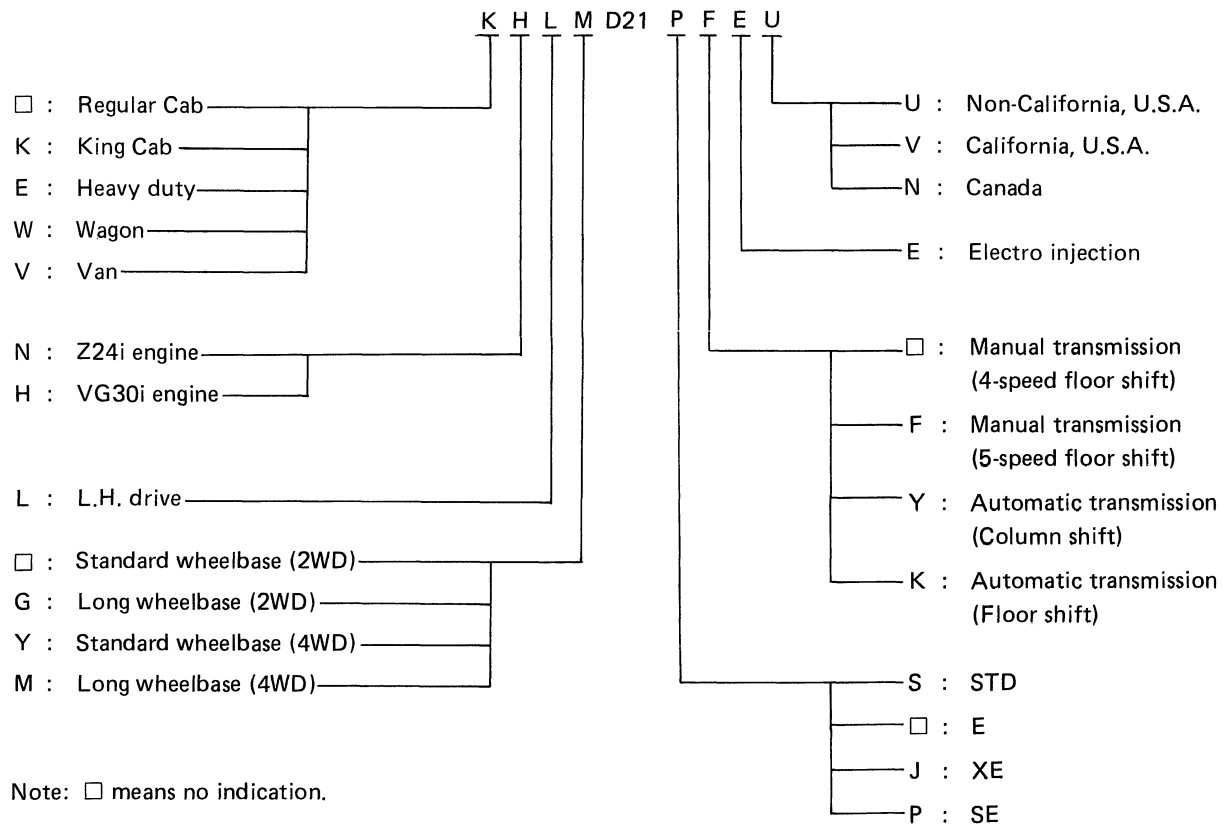
#### 4-WHEEL DRIVE PATHFINDER

| Destination            | Engine       |                      | Z24i        |           | VG30i       |            |             |            |
|------------------------|--------------|----------------------|-------------|-----------|-------------|------------|-------------|------------|
|                        | Transmission |                      | FS5W71C     |           | FS5R30A     |            | RE4R01A     |            |
|                        | Transfer     |                      | TX 10       |           | TX 10       |            | TX 10       |            |
|                        | Body         | Differential carrier | Front R180A | Rear C200 | Front R200A | Rear H233B | Front R200A | Rear H233B |
| Non-California, U.S.A. | Wagon        | E                    | WNLYD21FEU  |           | —           |            | —           |            |
|                        |              | XE                   | —           |           | WHLYD21JFEU |            | WHLYD21JKEU |            |
|                        |              | SE                   | —           |           | WHLYD21PFEU |            | WHLYD21PKEU |            |
| California, U.S.A.     | Wagon        | XE                   | —           |           | WHLYD21JFEV |            | WHLYD21JKEV |            |
|                        |              | SE                   | —           |           | WHLYD21PFEV |            | WHLYD21PKEV |            |
| Canada                 | Van          | E                    | VNLYD21FEN  |           | —           |            | —           |            |
|                        |              | XE                   | —           |           | VHLYD21JFEN |            | VHLYD21JKEN |            |
|                        |              | SE                   | —           |           | VHLYD21PFEN |            | VHLYD21PKEN |            |

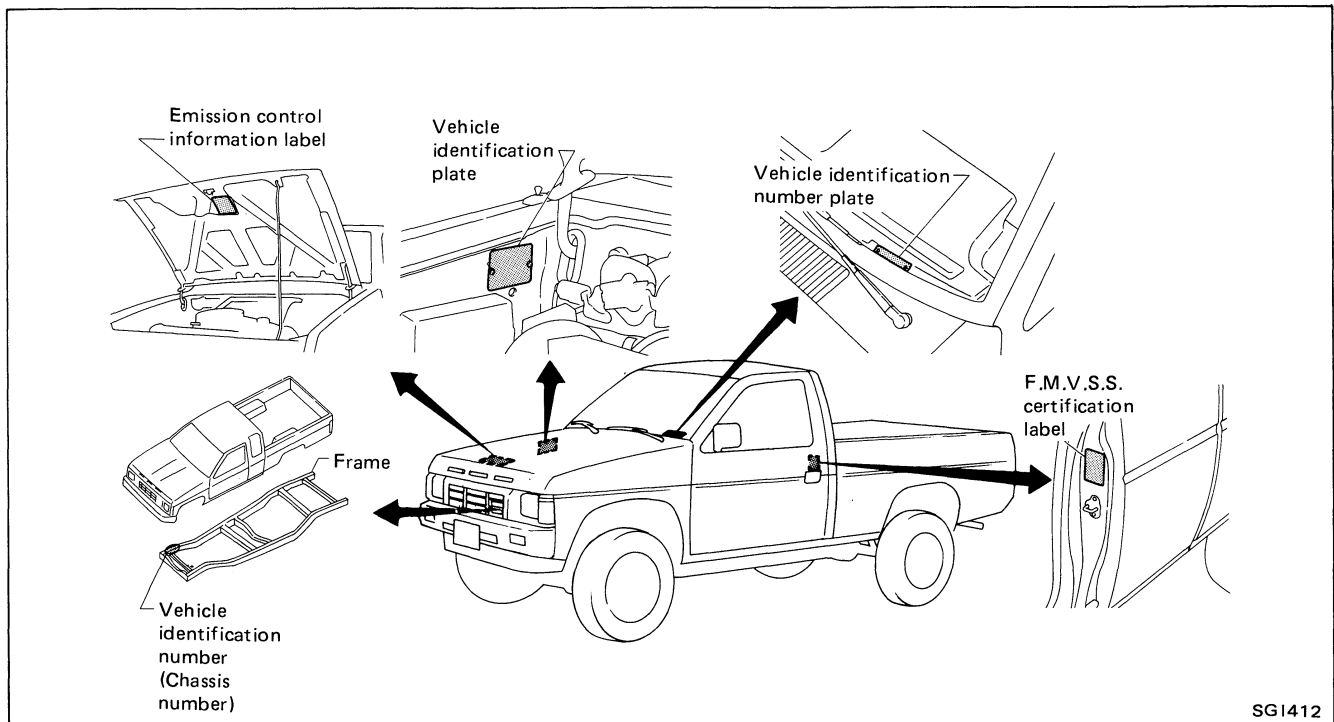
## IDENTIFICATION INFORMATION

### Model Variation (Cont'd)

Prefix and suffix designations:



### Identification Number

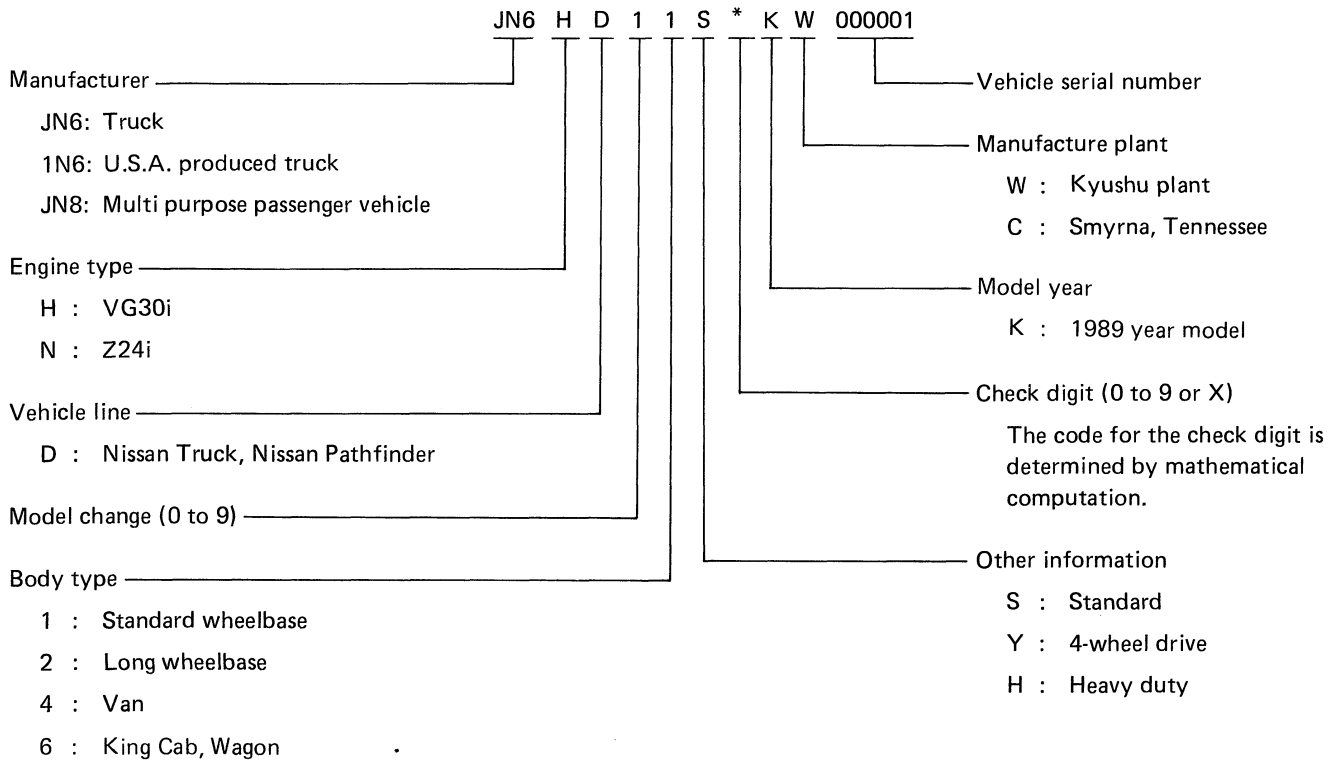


SGI412

## IDENTIFICATION INFORMATION

### Identification Number (Cont'd)

#### VEHICLE IDENTIFICATION NUMBER ARRANGEMENT



The 1989 models start production with the following vehicle identification numbers (chassis number) with the exception of those produced in U.S.A. produced trucks.

JN6HD11S\*KW100001  
JN6HD12S\*KW100001  
JN6HD16S\*KW100001  
JN6ND11S\*KW100001  
JN6ND12S\*KW100001  
JN6ND16S\*KW100001  
JN6HD12H\*KW100001  
JN6HD15H\*KW100001  
JN6HD11Y\*KW100001  
JN6HD16Y\*KW100001  
JN6ND11Y\*KW100001  
JN6ND12Y\*KW100001  
JN6ND16Y\*KW100001  
JN8ND16Y\*KW100001  
JN8HD16Y\*KW100001  
JN8HD14Y\*KW100001  
JN6ND14Y\*KW100001

## IDENTIFICATION INFORMATION

### Identification Number (Cont'd)

#### IDENTIFICATION PLATE

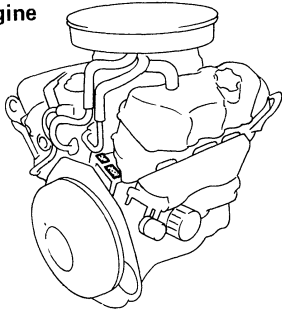
|  |                       |    |  |
|--|-----------------------|----|--|
| NISSAN MOTOR CO., LTD. JAPAN             |                       |    |  |
| 型式                                       | TYPE<br>TIPO          | 1  |  |
| CHASSIS NO<br>NO. DE CHASIS              | 2                     |    |  |
| MODEL<br>MODELO                          | 3                     |    |  |
| ○ カラー COLOR TRIM<br>トリム COLOR GUARNICION | 4 5                   | ○  |  |
| エンジン ENGINE<br>ジン MOTOR                  | 6 7                   | CC |  |
| ミッション TRANS., AXLE<br>アクスル TRANS., EJE   | 8 9                   |    |  |
|  | 工場<br>PLANT<br>PLANTA |    |  |
| 日産自動車株式会社 MADE IN JAPAN                  |                       |    |  |

- 1 Type
- 2 Vehicle identification number (Chassis number)
- 3 Model
- 4 Body color code
- 5 Trim color code
- 6 Engine model
- 7 Engine displacement
- 8 Transmission model
- 9 Axle model

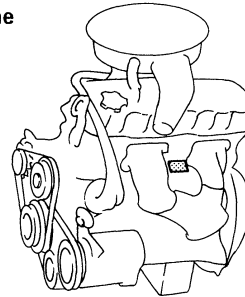
SGI315

#### ENGINE SERIAL NUMBER

VG30i engine

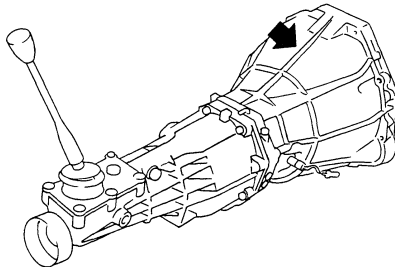


Z24i engine



SGI505

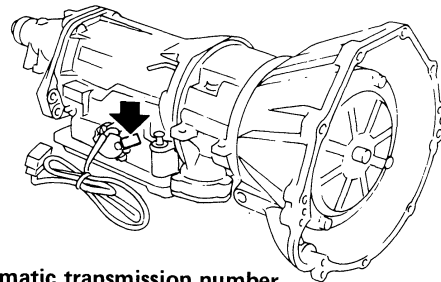
#### TRANSMISSION SERIAL NUMBER



Manual transmission number

SGI418

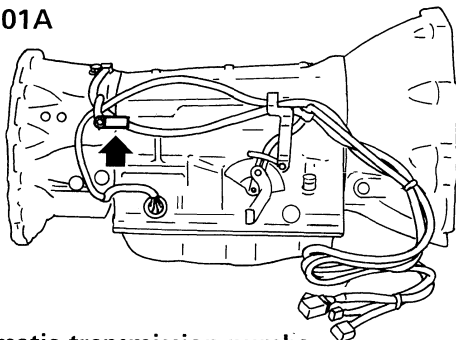
L4N71B, E4N71B



Automatic transmission number

SGI273

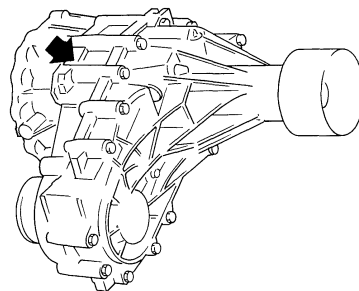
#### TRANSMISSION SERIAL NUMBER RE4R01A



Automatic transmission number

SGI509

#### TRANSFER SERIAL NUMBER



SGI419

## IDENTIFICATION INFORMATION

### Dimensions

#### Truck

Unit: mm (in)

|                                    |        | 2-wheel drive      |                  |                  |                  | 4-wheel drive      |                  |
|------------------------------------|--------|--------------------|------------------|------------------|------------------|--------------------|------------------|
|                                    |        | Regular Cab        |                  | King Cab         | Heavy duty       | Regular Cab        | King Cab         |
|                                    |        | Standard wheelbase | Long wheelbase   |                  |                  | Standard wheelbase | Long wheelbase   |
|                                    |        |                    |                  |                  |                  |                    |                  |
| Overall length                     |        | 4,435<br>(174.6)   | 4,825<br>(190.0) | 4,825<br>(190.0) | 4,825<br>(190.0) | 4,435<br>(174.6)   | 4,825<br>(190.0) |
| Overall width                      |        | 1,650<br>(65.0)    | 1,650<br>(65.0)  | 1,650<br>(65.0)  | 1,650<br>(65.0)  | 1,690<br>(66.5)    | 1,690<br>(66.5)  |
| Overall height                     |        | 1,575<br>(62.0)    | 1,575<br>(62.0)  | 1,575<br>(62.0)  | 1,575<br>(62.0)  | 1,695<br>(66.7)    | 1,695<br>(66.7)  |
| Front tread                        |        | 1,395<br>(54.9)    | 1,395<br>(54.9)  | 1,395<br>(54.9)  | 1,395<br>(54.9)  | 1,425<br>(56.1)    | 1,425<br>(56.1)  |
| Rear tread<br>(Z24i engine model)  |        | 1,385<br>(54.5)    | 1,385<br>(54.5)  | 1,385<br>(54.5)  | —                | 1,385<br>(54.5)    | 1,385<br>(54.5)  |
| Rear tread<br>(VG30i engine model) |        | 1,410<br>(55.5)    | 1,410<br>(55.5)  | 1,410<br>(55.5)  | 1,410<br>(55.5)  | 1,410<br>(55.5)    | 1,410<br>(55.5)  |
| Wheelbase                          |        | 2,650<br>(104.3)   | 2,950<br>(116.1) | 2,950<br>(116.1) | 2,950<br>(116.1) | 2,650<br>(104.3)   | 2,950<br>(116.1) |
| Cargo space                        | Length | 1,875<br>(73.8)    | 2,265<br>(89.2)  | 1,895<br>(74.6)  | 2,265<br>(89.2)  | 1,875<br>(73.8)    | 1,895<br>(74.6)  |
|                                    | Width  | 1,520<br>(59.8)    | 1,520<br>(59.8)  | 1,520<br>(59.8)  | 1,520<br>(59.8)  | 1,520<br>(59.8)    | 1,520<br>(59.8)  |
|                                    | Height | 435<br>(17.1)      | 435<br>(17.1)    | 435<br>(17.1)    | 435<br>(17.1)    | 435<br>(17.1)      | 435<br>(17.1)    |

#### Pathfinder

Unit: mm (in)

|                | Wagon                      |               | Van           |
|----------------|----------------------------|---------------|---------------|
|                | VG30i                      | Z24i          | Z24i          |
|                |                            |               |               |
| Overall length | 4,365 (171.9)              | 4,365 (171.9) | 4,365 (171.9) |
| Overall width  | 1,690 (66.5)               | 1,690 (66.5)  | 1,690 (66.5)  |
| Overall height | 1,670 (65.7)/1,680 (66.1)* | 1,670 (65.7)  | 1,670 (65.7)  |
| Front tread    | 1,425 (56.1)/1,445 (56.9)* | 1,425 (56.1)  | 1,425 (56.1)  |
| Rear tread     | 1,410 (55.5)/1,430 (56.3)* | 1,385 (54.5)  | 1,385 (54.5)  |
| Wheelbase      | 2,650 (104.3)              | 2,650 (104.3) | 2,650 (104.3) |

\*: SE model



## IDENTIFICATION INFORMATION

### Wheels & Tires

| Body |                                     | Grade | Road wheel/offset mm (in)                        | Tire                      |
|------|-------------------------------------|-------|--|---------------------------|
| 4x2  | Regular and King Cab                | STD   | 5-Jx14/40 (1.57)                                 | P185/75R14                |
|      |                                     | E     | 5-Jx14/40 (1.57)                                 | P195/75R14                |
|      |                                     | XE    | 5-Jx14/40 (1.57)                                 | P195/75R14                |
|      |                                     | SE    | 6-JJx14/30 (1.18)<br>6-JJx14 Aluminum/30 (1.18)* | P215/75R14                |
|      | Heavy duty                          | E     | 5-Jx14/40 (1.57)                                 | LT195/75R14               |
| 4x4  | Regular, King Cab<br>and Pathfinder | E     | 5-1/2-Kx15/40 (1.57)                             | P215/75R15                |
|      |                                     | XE    | 5-1/2-Kx15/40 (1.57)                             | P215/75R15                |
|      |                                     | SE    | 6-JJx15/30 (1.18)<br>7-JJx15 Aluminum/25 (0.98)* | P235/75R15<br>31x10.5R15* |

\*: Option

# RECOMMENDED FUEL AND LUBRICANTS

## Fuel and Lubricants

|                                     |                |                    | Capacity (Approximate)     |                            |            | Recommended Fuel/Lubricants   |
|-------------------------------------|----------------|--------------------|----------------------------|----------------------------|------------|---|
|                                     |                |                    | US<br>measure              | Imp<br>measure             | Liter      |   |
| Fuel                                |                |                    | 15-7/8 gal<br>21-1/8 gal*1 | 13-1/4 gal<br>17-5/8 gal*1 | 60<br>80*1 | Unleaded gasoline with an octane<br>rating of at least 87 AKI (RON 91)  |
| Engine oil (Refill)                 |                |                    |                            |                            |            |   |
| VG30i                               | 2WD            | With oil filter    | 4-1/4 qt                   | 3-1/2 qt                   | 4.0        | Genuine Nissan Motor Oil*4 or<br>equivalent<br>Energy Conserving Oils*3<br>of API SF or SG  |
|                                     |                | Without oil filter | 3-7/8 qt                   | 3-1/8 qt                   | 3.6        |   |
| VG30i                               | 4WD            | With oil filter    | 3-5/8 qt                   | 3 qt                       | 3.4        |   |
|                                     |                | Without oil filter | 3-1/8 qt                   | 2-5/8 qt                   | 3.0        |   |
| Z24i                                | 2WD            | With oil filter    | 4 qt                       | 3-3/8 qt                   | 3.8        |   |
|                                     |                | Without oil filter | 3-1/2 qt                   | 2-7/8 qt                   | 3.3        |   |
| Z24i                                | 4WD            | With oil filter    | 4-1/2 qt                   | 3-3/4 qt                   | 4.3        |   |
|                                     |                | Without oil filter | 4 qt                       | 3-3/8 qt                   | 3.8        |   |
| Cooling system (With heater)        |                |                    |                            |                            |            |   |
| VG30i                               |                |                    | 10-1/2 qt                  | 8-3/4 qt                   | 9.9        | Anti-freeze coolant<br>(Ethylene glycol base)   |
| Z24i                                |                |                    | 8-5/8 qt                   | 7-1/4 qt                   | 8.2        |   |
| Reservoir tank                      |                |                    | 5/8 qt                     | 1/2 qt                     | 0.6        |   |
| Manual transmission<br>gear oil     | F4W71C         |                    | 3-5/8 pt                   | 3 pt                       | 1.7        | API GL-4*2  |
|                                     | FS5W71C        | 2WD                | 4-1/4 pt                   | 3-1/2 pt                   | 2.0        |   |
|                                     |                | 4WD                | 8-1/2 pt                   | 7 pt                       | 4.0        |   |
|                                     | FS5R30A        | 2WD                | 5-1/8 pt                   | 4-1/4 pt                   | 2.4        |   |
|                                     |                | 4WD                | 7-5/8 pt                   | 6-3/8 pt                   | 3.6        |   |
| Transfer gear oil                   |                |                    | 2-3/8 qt                   | 2 qt                       | 2.2        |   |
| Manual steering gear oil            |                |                    | 3/4 pt                     | 5/8 pt                     | 0.33       |   |
| Differential carrier gear oil       |                |                    |                            |                            |            |   |
| Rear:                               | H190A          |                    | 3-1/8 pt                   | 2-5/8 pt                   | 1.5        | Standard differential gear:<br>API GL-5*2<br>Limited-slip differential (L.S.D.) gear:<br>Use only LSD gear oil API GL-5<br>and SAE 80W-90*5 approved<br>for Nissan LSD*6. |
|                                     | C200           |                    | 2-3/4 pt                   | 2-1/4 pt                   | 1.3        |   |
|                                     | H233B          |                    | 5-7/8 pt                   | 4-7/8 pt                   | 2.8        |   |
| Front (4WD):                        | R180A          |                    | 2-3/4 pt                   | 2-1/4 pt                   | 1.3        |   |
|                                     | R200A          |                    | 3-1/8 pt                   | 2-5/8 pt                   | 1.5        |   |
| Automatic transmission<br>fluid     | L4N71B, E4N71B |                    | 7-3/8 qt                   | 6-1/8 qt                   | 7.0        |   |
|                                     | RE4R01A        |                    | 9 qt                       | 7-1/2 qt                   | 8.5        |   |
| Power steering fluid                |                |                    | 2-1/8 pt                   | 1-3/4 pt                   | 1.0        | Type DEXRON™  |
| Brake and clutch fluid              |                |                    | —                          | —                          | —          | Genuine Nissan Brake Fluid*4 or<br>equivalent<br>DOT 3 (US FMVSS No. 116)   |
| Multi-purpose grease                |                |                    | —                          | —                          | —          | NLGI No. 2 (Lithium soap base)  |
| Free-running hub grease (Auto-lock) |                |                    | —                          | —                          | —          | Genuine Nissan grease or equivalent   |

\*1: VG30i engine models except 2WD Truck SE models and 4WD Truck E models.

\*2: For further details, see the recommended SAE viscosity number chart.

\*3: These oils can be identified by such labels as energy conserving, energy saving, improved fuel economy, etc.

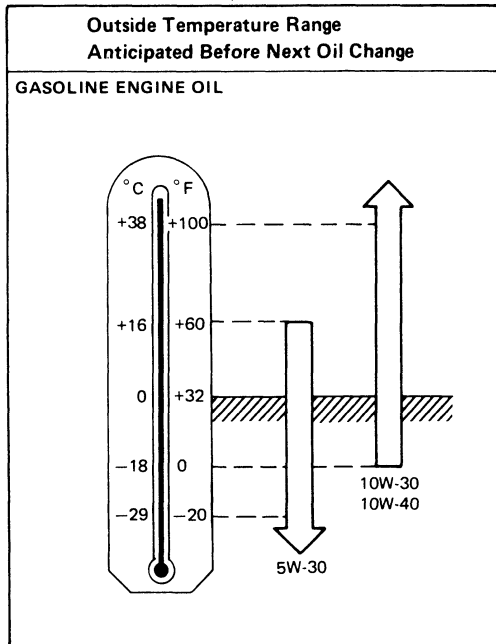
\*4: Available in mainland U.S.A. through your Nissan dealer.

\*5: SAE 90 is acceptable in ambient temperatures above -18°C (0°F).

\*6: Contact a Nissan dealer for a list of approved oils.

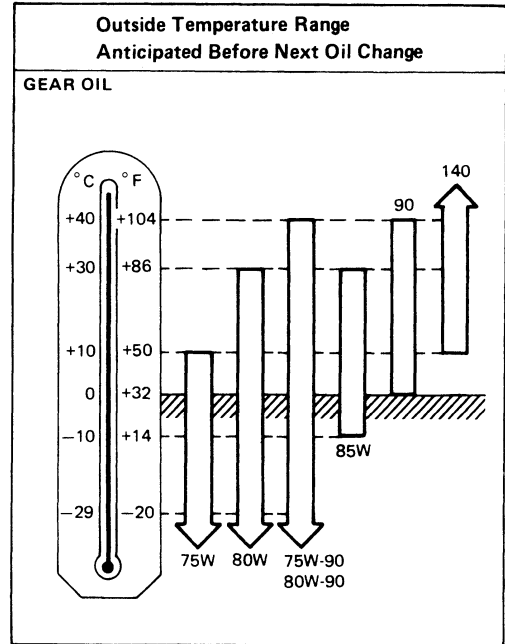
## RECOMMENDED FUEL AND LUBRICANTS

### SAE Viscosity Number



T10002

10W-30 is preferable if the ambient temperature is above  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ). 20W-40 and 20W-50 are usable if the ambient temperature is above  $10^{\circ}\text{C}$  ( $50^{\circ}\text{F}$ ) for all seasons.



T10003

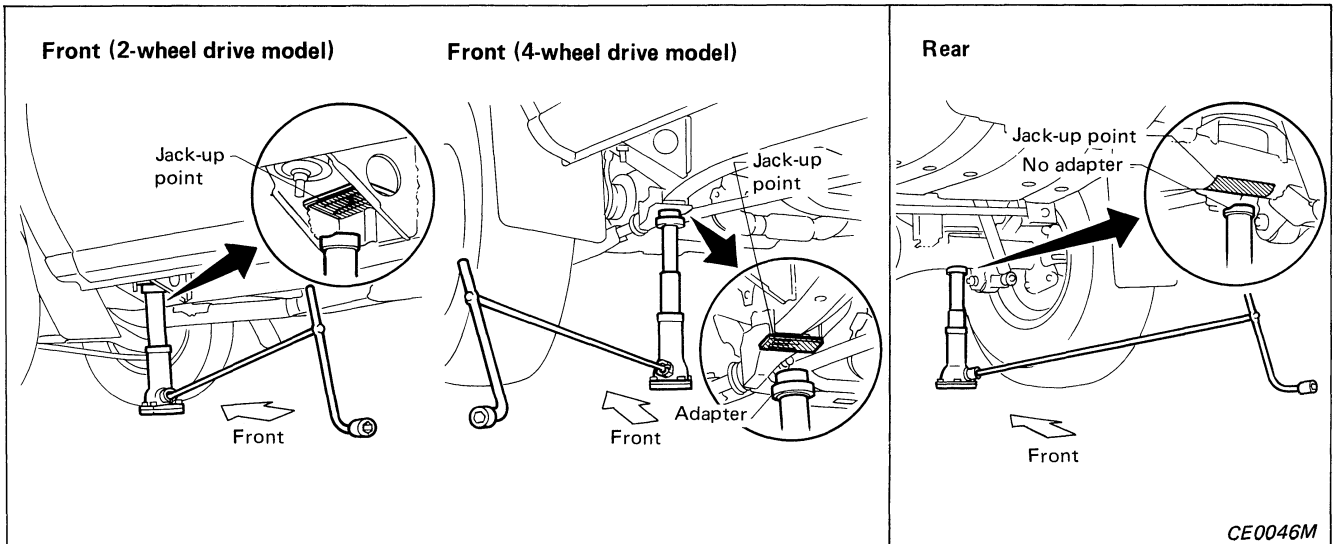
75W-90 for transmission and transfer, and 80W-90 for differential are preferable if the ambient temperature is below  $40^{\circ}\text{C}$  ( $104^{\circ}\text{F}$ ).

## LIFTING POINTS AND TOW TRUCK TOWING

### WARNING:

- Never get under the vehicle while it is supported only by the jack. Always use safety stands to support the frame when you have to get under the vehicle.
- Place wheel chocks at both front and back of the wheel which is diagonally opposite the jack position.  
Example: If the jack is positioned at the L.H. front wheel, place wheel chocks at R.H. rear wheel.

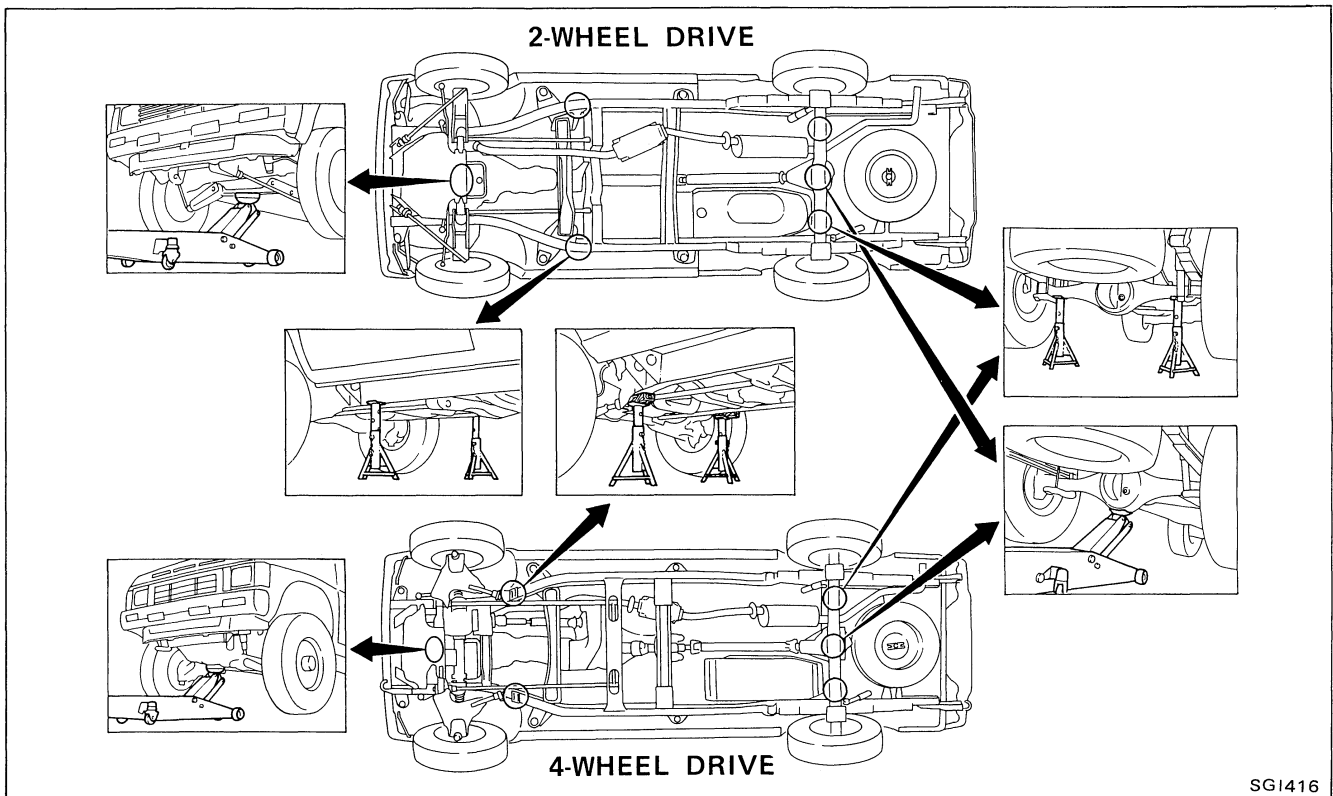
### Screw Jack



### Garage Jack and Safety Stand

#### CAUTION:

- Place a wooden or rubber block between safety stand and vehicle body when the supporting body is flat.



## LIFTING POINTS AND TOW TRUCK TOWING

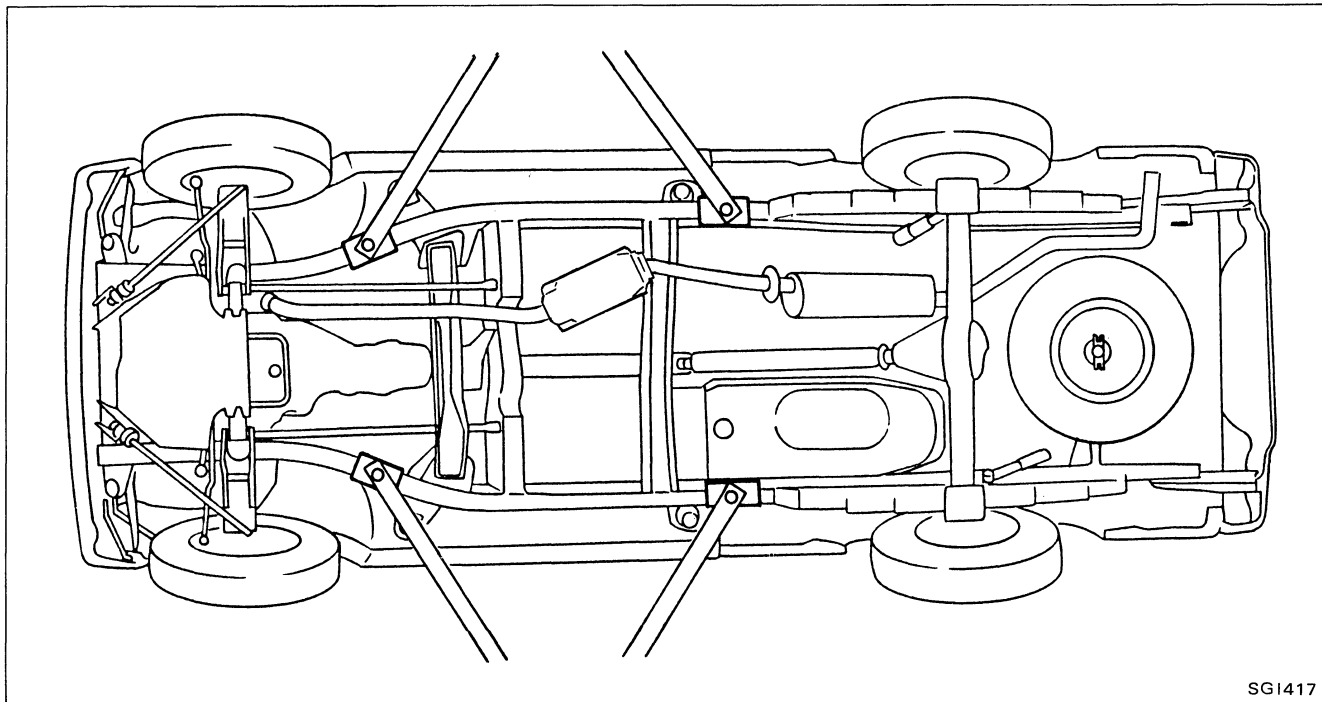
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### 2-pole Lift

**WARNING:**

When lifting the vehicle, open the lift arms as wide as possible and ensure that the front and rear of the vehicle are well balanced.

When setting the lift arm, do not allow the arm to contact the brake tubes and fuel lines.



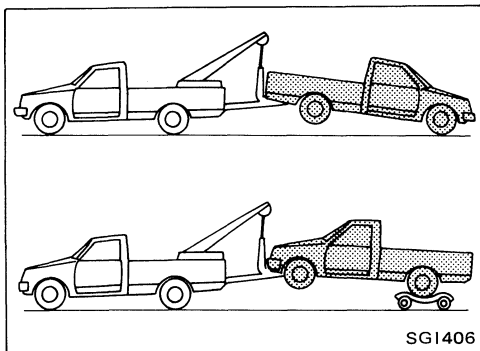
SGI417

## LIFTING POINTS AND TOW TRUCK TOWING

### Tow Truck Towing

#### CAUTION:

- All applicable state or Provincial (in Canada) laws and local laws regarding the towing operation must be obeyed.
- It is necessary to use proper towing equipment to avoid possible damage to the vehicle during towing operation. Towing is in accordance with Towing Procedure Manual at dealer.
- Attach safety chains for all towing.
- When towing, make sure that the transmission, steering system and power train are in good order. If any unit is damaged, a dolly must be used.
- When towing with the front wheels on the ground:  
Turn the ignition key to the "OFF" position and secure the steering wheel in a straightahead position with a rope or similar device. Never place the ignition key in the "LOCK" position. This will result in damage to the steering lock mechanism.
- When towing with the rear wheels on the ground, release the parking brake and move the gearshift lever to neutral ("N" position).
- For 4-wheel drive model:  
Set the free-running hubs to the free position and move both the gearshift and transfer levers to neutral ("N" position).



### 2-WHEEL DRIVE MODELS

NISSAN recommends that vehicle be towed with the driving (rear) wheels off the ground as illustrated.

Towing an automatic transmission model with four wheels on ground or towing with front wheels raised (With rear wheels on ground)

Observe the following restricted towing speeds and distances.

#### Speed

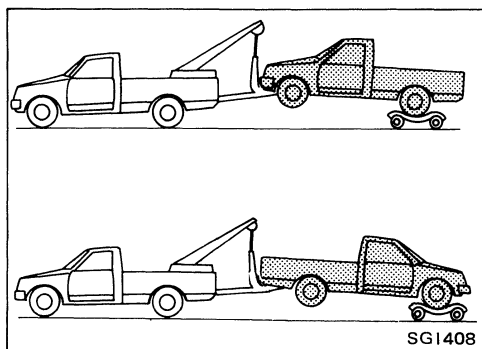
Below 50 km/h (30 MPH)

#### Distance

Less than 65 km (40 miles)

If the speed or distance must necessarily be greater, remove the propeller shaft beforehand to prevent damage to the transmission.

## LIFTING POINTS AND TOW TRUCK TOWING



### Tow Truck Towing (Cont'd)

#### 4-WHEEL DRIVE MODELS

NISSAN recommends that a dolly be used as illustrated when towing 4-wheel drive models.

**Towing with four wheels on ground or towing with front or rear wheels raised**

Observe the following restricted towing speeds and distances.

#### Speed

**Below 50 km/h (30 MPH)**

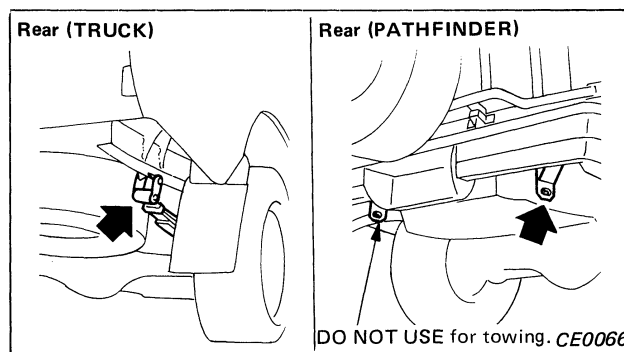
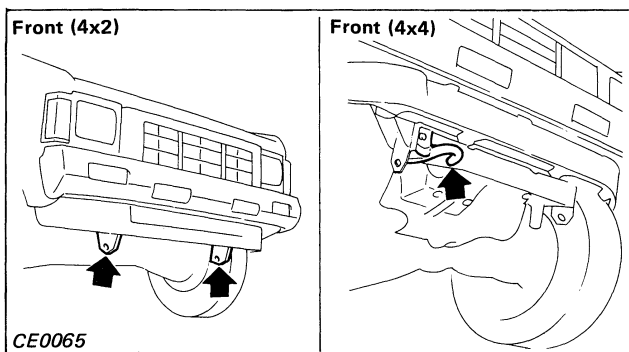
#### Distance

**Less than 65 km (40 miles)**

If the speed or distance must necessarily be greater, remove the front and rear propeller shafts beforehand to prevent damage to the transmission.

### TOWING POINT

- Never tow the vehicle using only the towing hooks. Use proper towing equipment when towing. Otherwise, the vehicle body will be damaged.
- Always pull the cable straight out from the vehicle. Never pull on the hook at a sideways angle.



## TIGHTENING TORQUE OF STANDARD BOLTS

| Grade | Bolt size | Bolt diameter* mm | Pitch mm | Tightening torque (Without lubricant) |      |       |                     |      |       |
|-------|-----------|-------------------|----------|---------------------------------------|------|-------|---------------------|------|-------|
|       |           |                   |          | Hexagon head bolt                     |      |       | Hexagon flange bolt |      |       |
|       |           |                   |          | N·m                                   | kg·m | ft·lb | N·m                 | kg·m | ft·lb |
| 4T    | M6        | 6.0               | 1.0      | 5.1                                   | 0.52 | 3.8   | 6.1                 | 0.62 | 4.5   |
|       | M8        | 8.0               | 1.25     | 13                                    | 1.3  | 9     | 15                  | 1.5  | 11    |
|       |           |                   | 1.0      | 13                                    | 1.3  | 9     | 16                  | 1.6  | 12    |
|       | M10       | 10.0              | 1.5      | 25                                    | 2.5  | 18    | 29                  | 3.0  | 22    |
|       |           |                   | 1.25     | 25                                    | 2.6  | 19    | 30                  | 3.1  | 22    |
|       | M12       | 12.0              | 1.75     | 42                                    | 4.3  | 31    | 51                  | 5.2  | 38    |
|       |           |                   | 1.25     | 46                                    | 4.7  | 34    | 56                  | 5.7  | 41    |
| 7T    | M14       | 14.0              | 1.5      | 74                                    | 7.5  | 54    | 88                  | 9.0  | 65    |
|       | M6        | 6.0               | 1.0      | 8.4                                   | 0.86 | 6.2   | 10                  | 1.0  | 7     |
|       |           |                   | 1.25     | 21                                    | 2.1  | 15    | 25                  | 2.5  | 18    |
|       | M8        | 8.0               | 1.0      | 22                                    | 2.2  | 16    | 26                  | 2.7  | 20    |
|       |           |                   | 1.5      | 41                                    | 4.2  | 30    | 48                  | 4.9  | 35    |
|       | M10       | 10.0              | 1.25     | 43                                    | 4.4  | 32    | 51                  | 5.2  | 38    |
|       |           |                   | 1.75     | 71                                    | 7.2  | 52    | 84                  | 8.6  | 62    |
| 9T    | M12       | 12.0              | 1.25     | 77                                    | 7.9  | 57    | 92                  | 9.4  | 68    |
|       |           |                   | 1.5      | 127                                   | 13.0 | 94    | 147                 | 15.0 | 108   |
|       | M6        | 6.0               | 1.0      | 12                                    | 1.2  | 9     | 15                  | 1.5  | 11    |
|       |           |                   | 1.25     | 29                                    | 3.0  | 22    | 35                  | 3.6  | 26    |
|       | M8        | 8.0               | 1.0      | 31                                    | 3.2  | 23    | 37                  | 3.8  | 27    |
|       |           |                   | 1.5      | 59                                    | 6.0  | 43    | 70                  | 7.1  | 51    |
|       | M10       | 10.0              | 1.25     | 62                                    | 6.3  | 46    | 74                  | 7.5  | 54    |
|       |           |                   | 1.75     | 98                                    | 10.0 | 72    | 118                 | 12.0 | 87    |
|       | M12       | 12.0              | 1.25     | 108                                   | 11.0 | 80    | 137                 | 14.0 | 101   |
|       |           |                   | 1.5      | 177                                   | 18.0 | 130   | 206                 | 21.0 | 152   |
|       | M14       | 14.0              | 1.5      |                                       |      |       |                     |      |       |
|       |           |                   |          |                                       |      |       |                     |      |       |

1. Special parts are excluded.
2. This standard is applicable to bolts having the following marks embossed on the bolt head.

\*: Nominal diameter

| Grade    | Mark |
|----------|------|
| 4T ..... | 4    |
| 7T ..... | 7    |
| 9T ..... | 9    |

