

SERVICE MANUAL

DATSUN

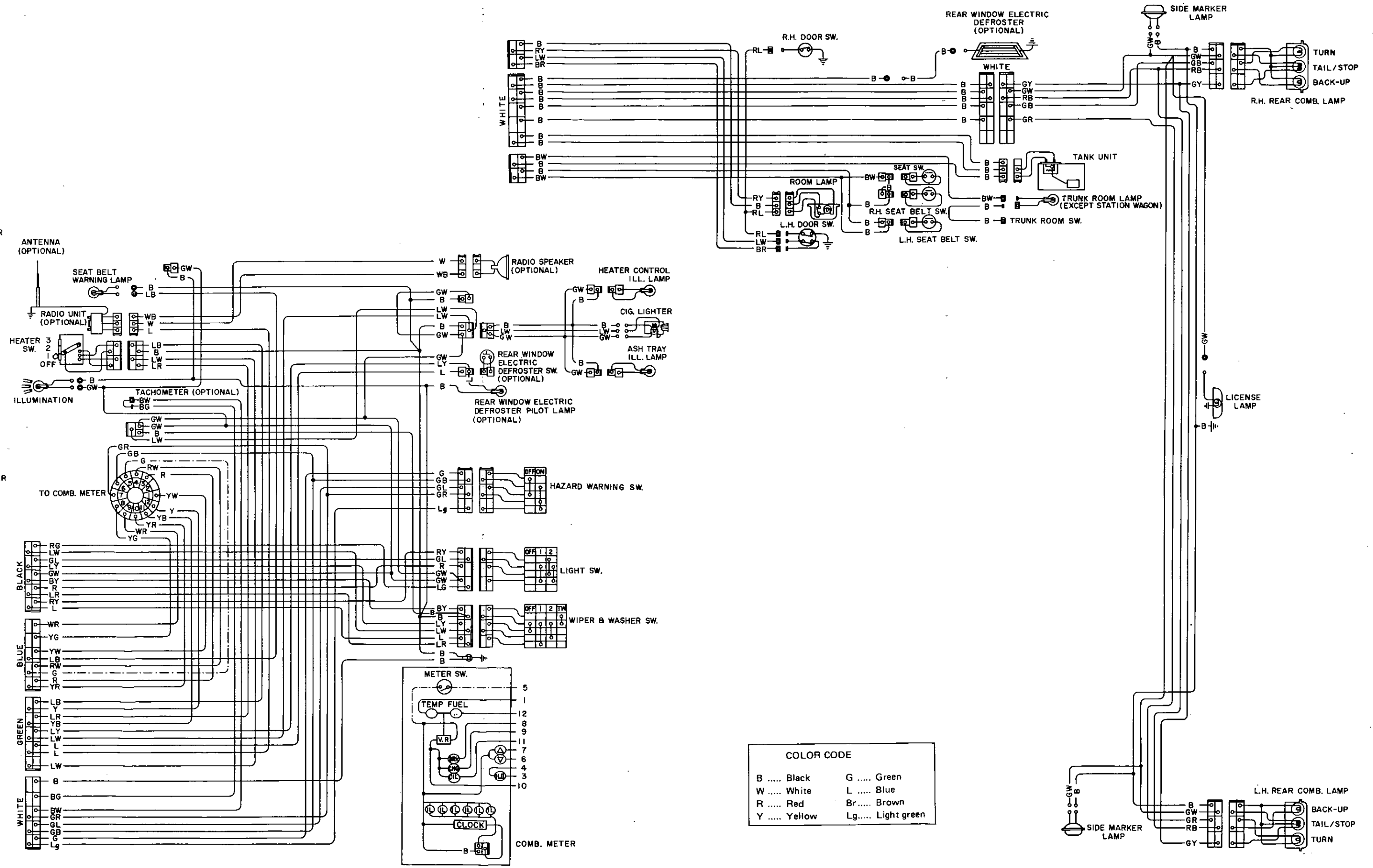
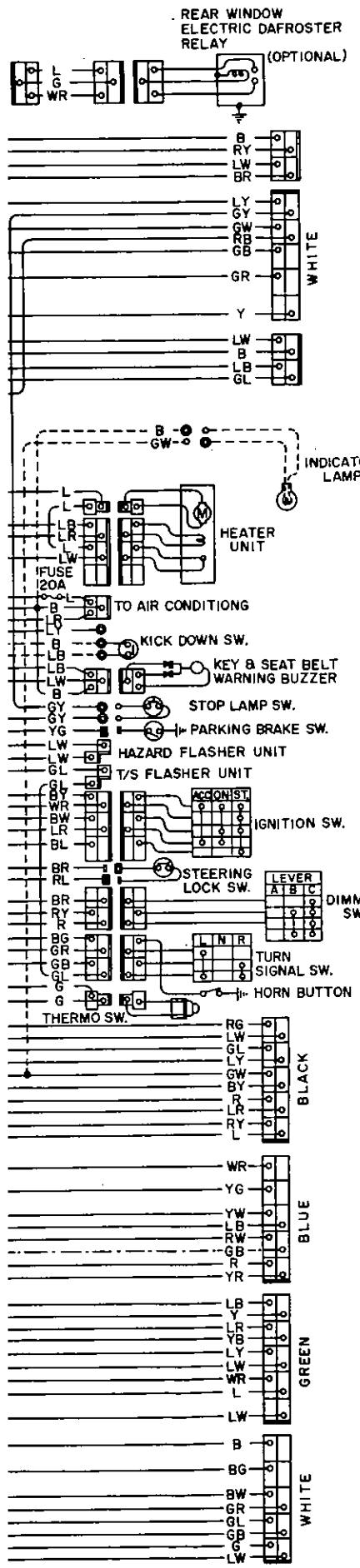
**MODEL 610 SERIES
CHASSIS AND BODY**



1973

NISSAN MOTOR CO., LTD.

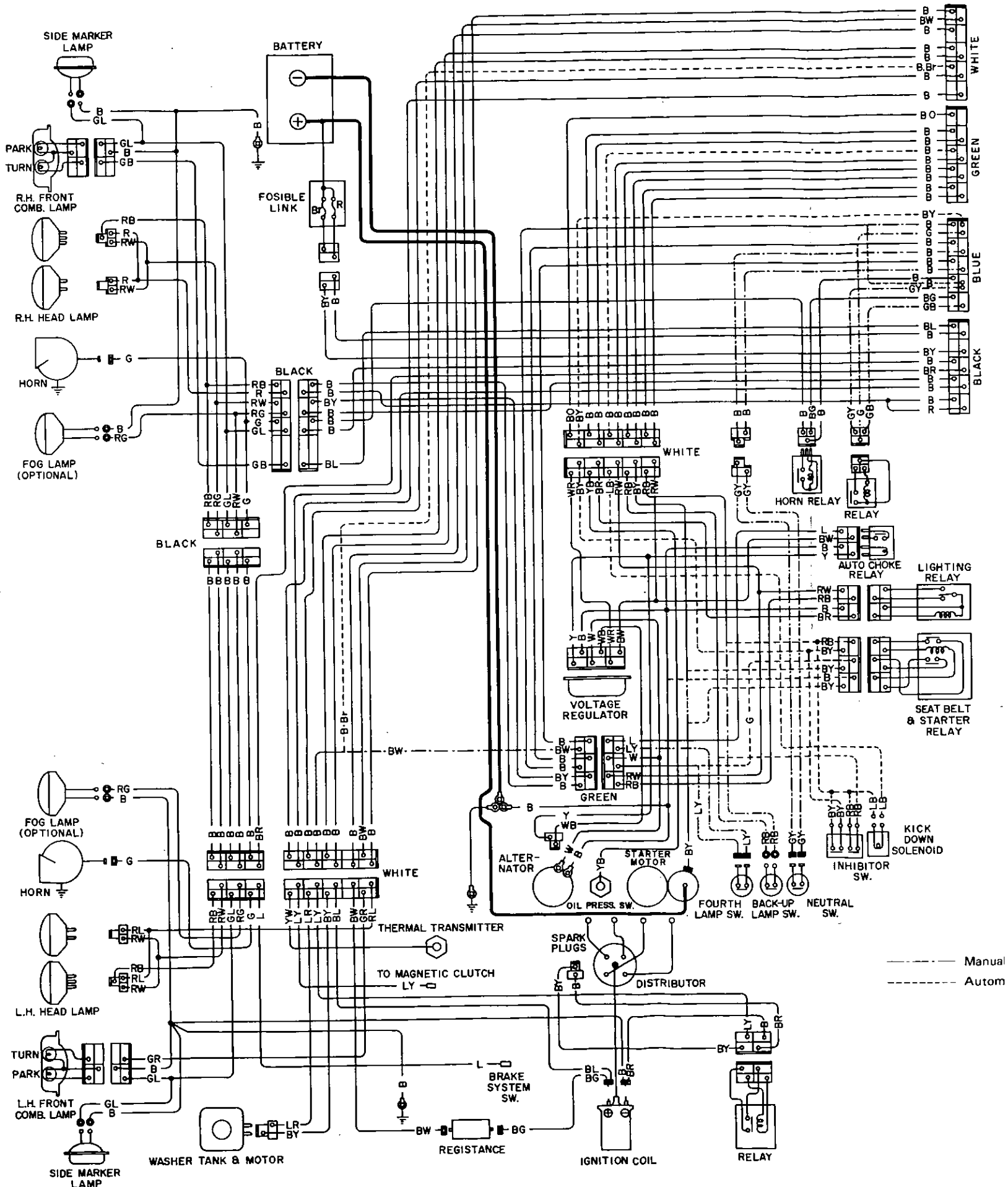
TOKYO, JAPAN

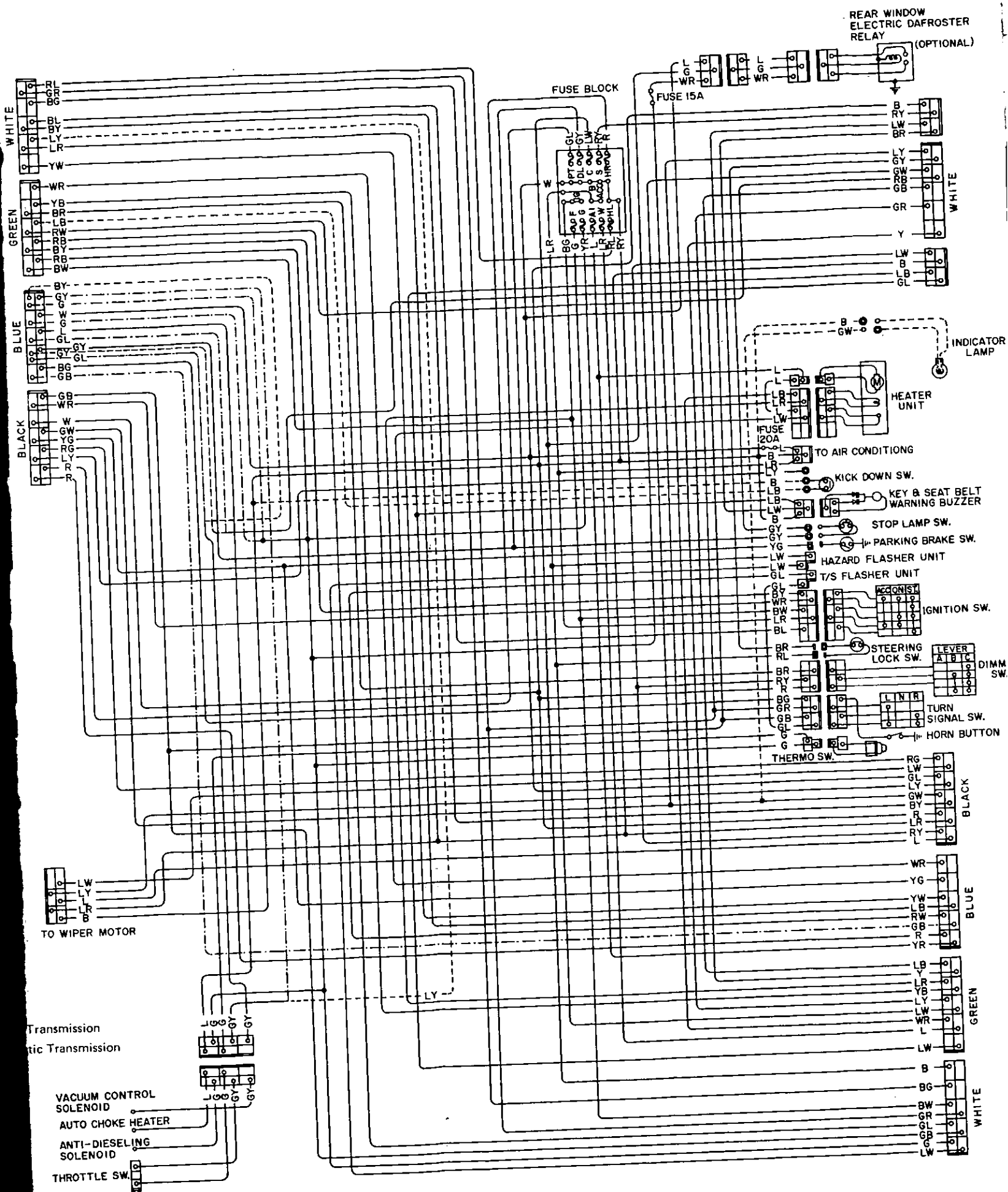


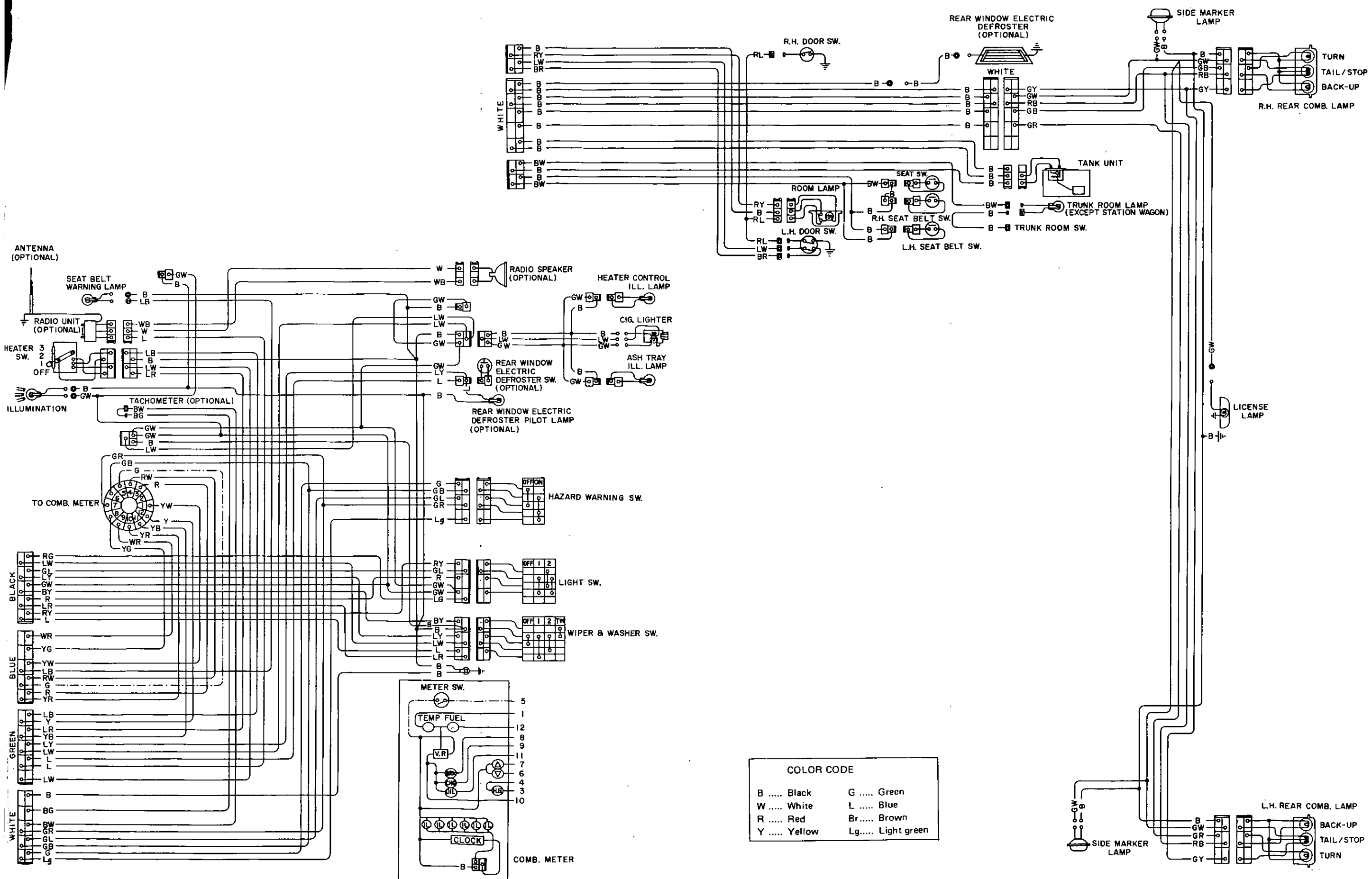
COLOR CODE

B	Black	G	Green
W	White	L	Blue
R	Red	Br	Brown
Y	Yellow	Lg	Light green

WIRING DIAGRAM







COLOR CODE					
B	Black	G	Green
W	White	L	Blue
R	Red	Br	Brown
Y	Yellow	Lg	Light green

DATSUN

1800

**SERVICE
MANUAL**

**MODEL
610 SERIES
CHASSIS & BODY**



**NISSAN MOTOR CO., LTD.
TOKYO, JAPAN**

\$ 20.00

QUICK REFERENCE INDEX

GENERAL INFORMATION GI

**ENGINE REMOVAL
& INSTALLATION** ER

CLUTCH CL

TRANSMISSION TM

**PROPELLER SHAFT
& DIFFERENTIAL CARRIER** PD

**FRONT AXLE
& FRONT SUSPENSION** FA

**REAR AXLE
& REAR SUSPENSION** RA

BRAKE BR

WHEEL AND TIRE WT

STEERING ST

**ENGINE CONTROL, FUEL
& EXHAUST SYSTEM** FE

BODY BF

BODY ELECTRICAL BE

SERVICE EQUIPMENT SE

FOREWORD

This service manual has been prepared for the purpose of assisting service personnels of our distributors and dealers in providing effective service and maintenance of the model 610 series.

Since proper maintenance and service are absolutely essential to satisfy our customers, this manual should be read carefully. The following matters should be noted for effective utilization of this manual.

1. Explanations in this manual are mainly concerning the model P610UWT (right hand drive) but will easily be referred to also for the left hand drive models.
2. Please refer to the following SERVICE MANUALS in addition to this manual for complete details of the car, because this manual describes information concerning the chassis and body only.
 - SERVICE MANUAL Model L18 Series Engine
 - SERVICE MANUAL Nissan Automatic Transmission Model 3N71B
3. All part names in this manual conform to the PARTS CATALOG Model 610, and only the genuine service parts listed in this PARTS CATALOG must be used for replacements.
4. All information, illustrations and specifications contained in this manual are based on the latest product information available at the time of publication approval.
5. It should be emphasized that those who use this manual are responsible for revising the contents according to the TECHNICAL BULLETIN or DATSUN SERVICE JOURNAL, which carries the latest factory approved service methods.
6. Rights for alternation of specifications and methods at any time are reserved.

NISSAN MOTOR CO., LTD.
TOKYO, JAPAN

SERVICE MANUAL

DATSUN 1800
MODEL 610 SERIES
CHASSIS & BODY



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TOKYO, JAPAN

SECTION GI

GI

GENERAL INFORMATION

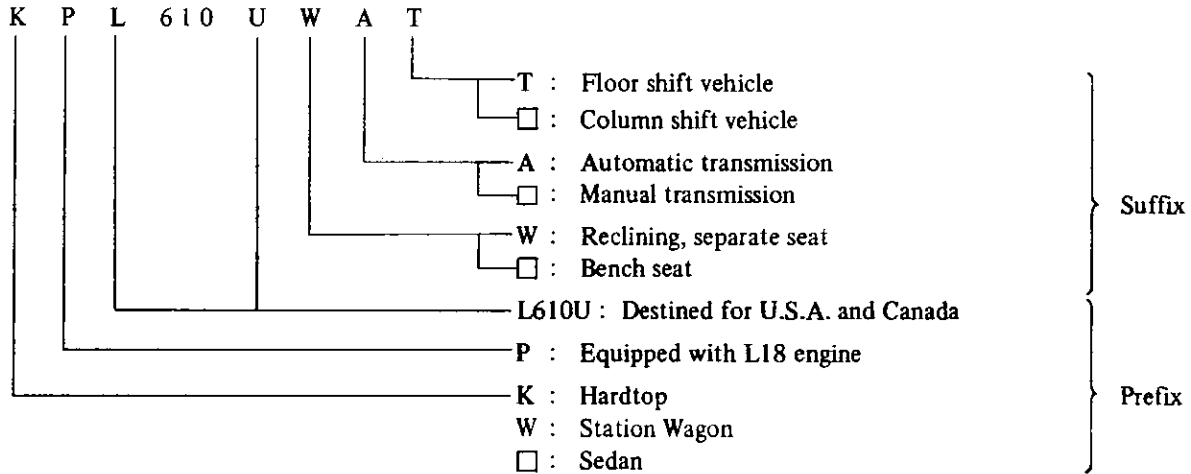
MODEL VARIATION.....	GI- 2
IDENTIFICATION NUMBERS.....	GI- 3
APPROXIMATE REFILL CAPACITY	GI- 5
FINAL, TRANSMISSION AND SPEEDOMETER USAGE	GI- 6
CHART	
RECOMMENDED LUBRICANTS.....	GI- 6
JACK UP.....	GI- 8

GENERAL INFORMATION

MODEL VARIATION

Class	Model	Engine	Transmission	Transmission control	Differential carrier	
					Model	Gear ratio
Hardtop	KPL610UAWT	L18	3N71B	Floor	R160	3.900
	KPL610UWT		F4W63			3.700
Sedan	PL610UAWT		3N71B	Column		3.900
	PL610UA		F4W73			Floor
	PL610UWT		3N71B	H165		3.889
Station Wagon	WPL610UAWT		3N71B			Column
	WPL610UA		F4W73		Floor	
	WPL610UWT			Floor		

The meaning of prefix and suffix



Note: means no indication.

GENERAL INFORMATION

IDENTIFICATION NUMBERS

The unit and car numbers are stamped and registered at the factory.

The engine and vehicle identification numbers are used on legal documents. These numbers are used for factory communication such as Technical Report, Warranty Claim, Service Journal and other information.

Car identification plate

The car identification plate is located at the center of the cowl top. The plate contains the vehicle type, engine capacity, max. horse-power, wheelbase and engine and car serial numbers.

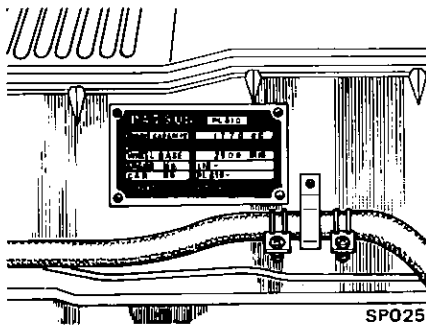


Fig. GI-1 Car identification plate location

Car serial number

The car serial number is stamped on the left side of the cowl top and broken down as shown in the following figure. (Fig. GI-2)

The car number consists of the vehicle model and the serial number. (PL610 - xxxxxx)

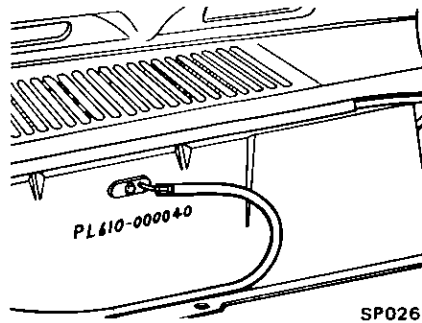


Fig. GI-2 Car serial number location

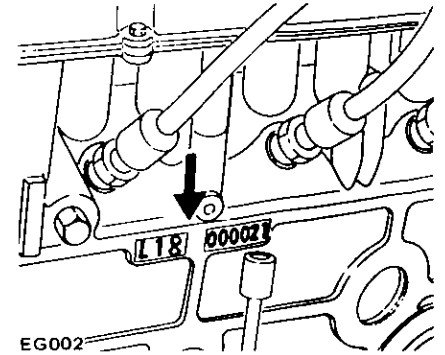


Fig. GI-3 Engine serial number location

Engine serial number

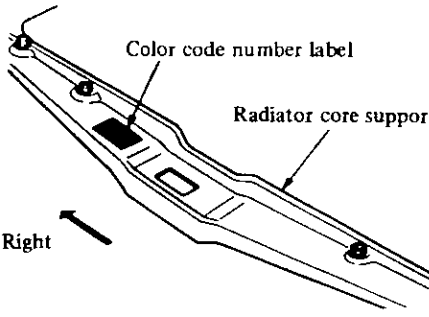
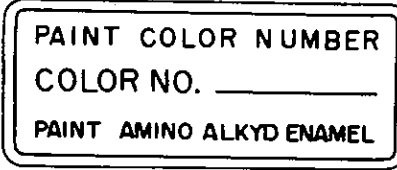
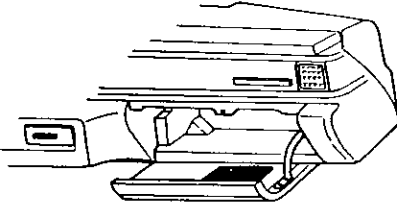

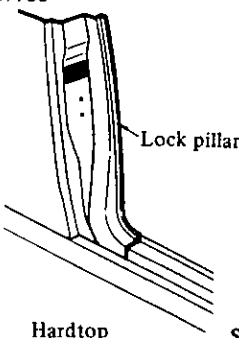
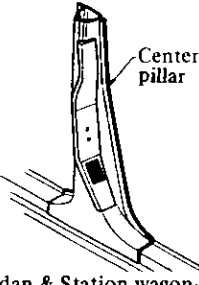
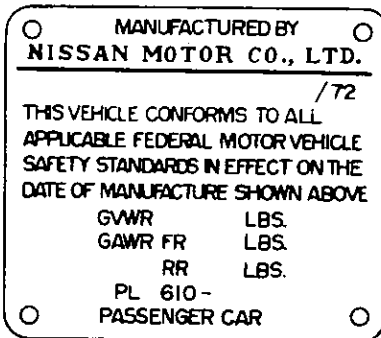
The engine serial number is stamped on the right-hand side of the cylinder block. The number is broken down as shown in the following figure. (Fig. GI-3)

Caution labels

Many labels are stuck on the vehicle as shown in the following table.

Label name	Location	Sample
Car identification plate	Center of cowl top	See Figure GI-1.
Identification number plate	Left, upper side of instrument panel	

GENERAL INFORMATION

Label name	Location	Sample																																																													
Color code number label	Right, upper side of radiator core support 																																																														
Tire inflation pressure label	Inside of glove box lid 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">VEHICLE CAPACITY WEIGHT</th> <th colspan="2">SEATING CAPACITY</th> <th colspan="2">FRONT 2 PASSENGERS</th> <th colspan="2">REAR 2 PASSENGERS</th> </tr> <tr> <th colspan="2">750</th> <th colspan="2"></th> <th colspan="2"></th> </tr> </thead> <tbody> <tr> <td colspan="7" style="text-align: center;">RECOMMENDED COLD TIRE INFLATION PRESSURE</td> </tr> <tr> <th rowspan="2">TIRE SIZE</th> <th colspan="2">FOR MAXIMUM LOAD (750^{kg})</th> <th colspan="4">FOR REDUCED LOAD (600^{kg})</th> </tr> <tr> <th colspan="2">4 PASSENGERS + 150^{kg} LUGGAGE OR 2 PASSENGERS + 450^{kg} LUGGAGE</th> <th colspan="2">1 to 4 PASSENGERS OR 1 to 2axis + 300^{kg} LUGGAGE</th> <th colspan="2"></th> </tr> <tr> <th>165-16 0.45-16</th> <th>FRONT</th> <th>REAR</th> <th>FRONT</th> <th>REAR</th> <th>FRONT</th> <th>REAR</th> </tr> <tr> <td>FOR NORMAL SPEED UNDER 70 MPH</td> <td>28 PSI</td> <td>32 PSI</td> <td>24 PSI</td> <td>28 PSI</td> <td></td> <td></td> </tr> <tr> <td>FOR HIGH SPEED OVER 70 MPH</td> <td>28 PSI</td> <td>32 PSI</td> <td>28 PSI</td> <td>32 PSI</td> <td></td> <td></td> </tr> <tr> <td>165SR13</td> <td>28 PSI</td> <td>28 PSI</td> <td>28 PSI</td> <td>28 PSI</td> <td></td> <td></td> </tr> </tbody> </table>	VEHICLE CAPACITY WEIGHT	SEATING CAPACITY		FRONT 2 PASSENGERS		REAR 2 PASSENGERS		750						RECOMMENDED COLD TIRE INFLATION PRESSURE							TIRE SIZE	FOR MAXIMUM LOAD (750 ^{kg})		FOR REDUCED LOAD (600 ^{kg})				4 PASSENGERS + 150 ^{kg} LUGGAGE OR 2 PASSENGERS + 450 ^{kg} LUGGAGE		1 to 4 PASSENGERS OR 1 to 2axis + 300 ^{kg} LUGGAGE				165-16 0.45-16	FRONT	REAR	FRONT	REAR	FRONT	REAR	FOR NORMAL SPEED UNDER 70 MPH	28 PSI	32 PSI	24 PSI	28 PSI			FOR HIGH SPEED OVER 70 MPH	28 PSI	32 PSI	28 PSI	32 PSI			165SR13	28 PSI	28 PSI	28 PSI	28 PSI		
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165SR13	28 PSI	28 PSI	28 PSI	28 PSI																																																											
Cooling system caution label	Upper side of radiator support panel	<p>NISSAN MOTOR COMPANY'S NEW COOLANT ANTIFREEZE IS INSTALLED IN THIS CAR. NISSAN LONG LIFE COOLANT (ETHYLENE GLYCOL BASE) is the new combination summer coolant winter antifreeze. Freeze protection [-31°F [-35°C]] Cooling system should be drained every 24 months or 40,000km (24,000miles) under normal conditions, and refilled with NISSAN LONG LIFE COOLANT or equivalent.</p> <p style="text-align: center;"> NISSAN MOTOR CO., LTD.</p>																																																													
M.V.S.S. certificate label	G1100  G1101 																																																														

GENERAL INFORMATION

Exhaust emission label (California only)	Right side of rear windshield glass	
Emission control system label		

APPROXIMATE REFILL CAPACITY

	U.S. measure	Imper. measure	Liter
Fuel tank			
Sedan	14 ½ gal	12 ⅞ gal	55
Station Wagon	13 ¾ gal	11 ½ gal	52
Engine cooling system *1	1 ¾ gal	1 ¾ gal	6.5
Engine crankcase *2	4 ½ qt	3 ¾ qt	4.3
Manual transmission	4 ¼ pt	3 ½ pt	2.0
Automatic transmission *3	5 ¾ qt	4 ¾ qt	5.5
Differential carrier			
Sedan	1 ¾ pt	1 ¾ pt	0.8
Station Wagon	2 ¾ pt	2 ¼ pt	1.3
Steering gear box	¾ pt	½ pt	0.27

*1 Include ½ U.S. qt (½ Imper. qt, 0.5 liter) for heater.

*2 Include ½ U.S. qt (½ Imper. qt, 0.5 liter) for oil filter.

*3 Include 4 ¼ U.S. qt (3 ½ Imper. qt, 4.0 liters) for torque converter.

GENERAL INFORMATION

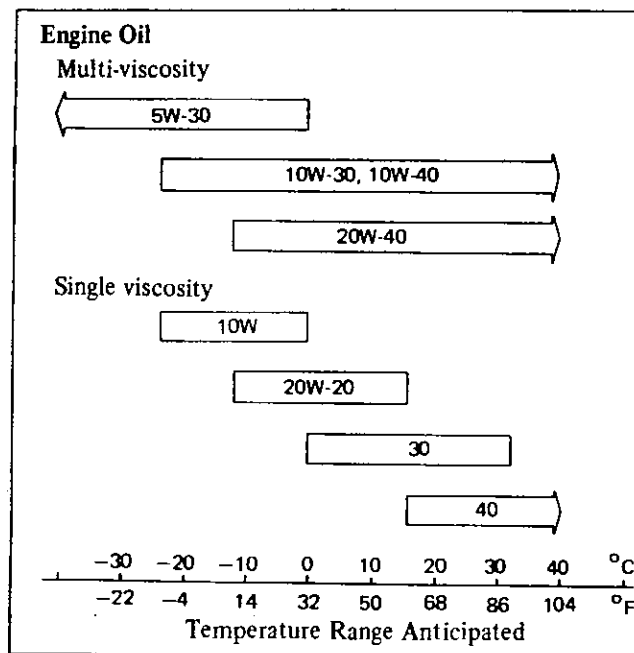
FINAL, TRANSMISSION AND SPEEDOMETER USAGE CHART

		Sedan		Station Wagon		
		M/T	A/T	M/T	A/T	
Transmission	Type	F4W63	3N71B	F4W63	3N71B	
	Shift lever position	Floor	Floor Column	Floor	Floor Column	
	Gear ratio	1st	3.382	2.458	3.382	2.458
		2nd	2.013	1.458	2.013	1.458
		3rd	1.312	1.000	1.312	1.000
		4th	1.000	—	1.000	—
Rev.		3.365	2.182	3.365	2.182	
Final gear	Type	R160	R160	H165	H165	
	Gear ratio	3.700	3.900	3.889	3.889	
Speedometer gear ratio		17/5	20/6	17/5	20/6	

M/T: Manual Transmission
A/T: Automatic Transmission

RECOMMENDED LUBRICANTS

RECOMMENDED SAE VISCOSITY NUMBER



GENERAL INFORMATION

RECOMMENDED LUBRICANTS

PRODUCING	CHEVRON	ESSO	MOBIL	SHELL	SUNOCO	TEXACO						
ENGINE OIL	Multigrade SD MIL-L-2104B	Supreme Motor Oil 5W-30, 10W-30, 10W-40, 20W-40	Uniflo 5W-30, 10W-40 Extra Motor Oil 5W-20, 10W-30, 20W-40	Mobiloil Super 5W-30, 5W-40, 10W-40, 10W-50, 20W-50 Mobiloil Special 5W-20, 10W-30, 20W-40, 20W-50	Super Motor Oil 10W-40, 20W-50	Special Motor Oil 5W-30, 10W-40 Dynalube Motor Oil 10W-30						
							Gasoline	Monograde SD MIL-L-2104B	Special Motor Oil 10W, 20W-20, 30, 40, 50	Mobiloil 10W, 20W-20, 30, 40, 50	Sunlube Motor Oil 10W, 20W-20, 30, 40, 50	Havoline Motor Oil 10W, 20W-20, 30, 40, 50
Differential	API GL-4 MIL-L-2105	Multiservice Gear Lub. 75, 80, 90, 140	Gear Oil GP 80, 90, 140	Mobilube EP or GX 80-90, 90, 140	Spirax 75EP, 80EP, 90EP, 140EP	Multipurpose Gear Lub. GL-4 80, 90, 140	Universal Gear Lub. EP 80, 90, 140					
								Automatic transmission	API GL-5 MIL-L-2105B	Universal Gear Lub. 75, 80, 90, 140	Gear Oil GX 80, 90, 140	Mobilube HD 80, 80-90, 90, 140
Multipurpose grease	Type DEXRON (3N71B A/T)	A.T.F.	A.T.F.	A.T.F. 220	A.T.F. DEXRON	Transmatic Fluid DEXRON Type	Texamatic Fluid DEXRON					
								Brake and clutch fluid	Lithium soap NLGI 2	Automotive Grease Medium*	Multipurpose Grease*	Mobilgrease MP*
Antifreeze coolant (L.L.C.)	DOT 3	It must be conform to the Motor Vehicle Safety Standard No. 116.				Permanent Type*	Antifreeze Coolant* Startex Antifreeze Coolant*					
		Atlas Perma Guard Antifreeze*	Long Life Coolant* Atlas Long Life Coolant RAD*	Permazone*	Shellzone							

In case the above brand oils are not available, it is permissible to use oils marked *.

GENERAL INFORMATION

JACK UP

PANTOGRAPH JACK

Apply the pantograph jack furnished with the vehicle to the position indicated below in a safe manner.

Notes:

- a. Never get under the vehicle while it is supported only by the jack. Always use safety stands to support frame when you have to get under the vehicle.
- b. Block the wheels diagonally by wheel chocks.

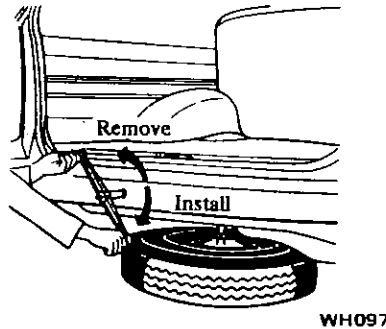


Fig. GI-7 Lowering spare tire (Station Wagon)

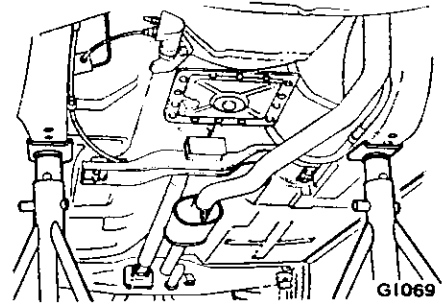


Fig. GI-9 Front supportable points

GARAGE JACK

Note: When carrying out operations with the garage jack, be sure to support the car with safety stands.

FRONT SIDE

1. When jacking up the front of the vehicle, place the chocks behind the rear wheels to hold them.
2. Apply the garage jack under the front suspension member. Be sure not to lift up the engine oil pan located just behind the suspension member.
3. Jack up the vehicle gently just high enough to place the safety stands under both the side members. Place the stands at the position indicated in Figure GI-8
4. Release the jack slowly.

REAR SIDE

1. When jacking up the rear of the vehicle, place the chocks at the front side of the front wheels to hold them.
2. Apply the garage jack under the differential carrier (all models), the suspension arm (A) (Sedan) or suspension member (B) (Sedan).
3. Jack up the vehicle gently just high enough to place the safety stands under the rear suspension member or body (Sedan), or under the rear axle case (Station Wagon).

Place the stands at the positions indicated below.

4. Release the jack slowly.

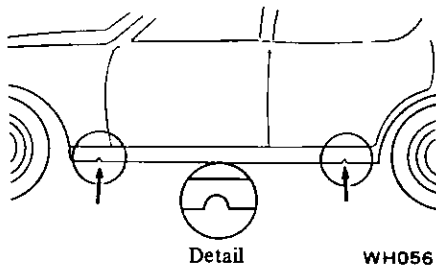


Fig. GI-4 Jack up points

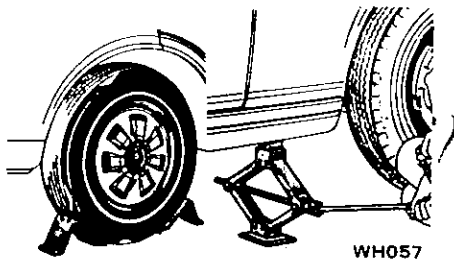


Fig. GI-5 Wheel chocks and jack (Sedan)

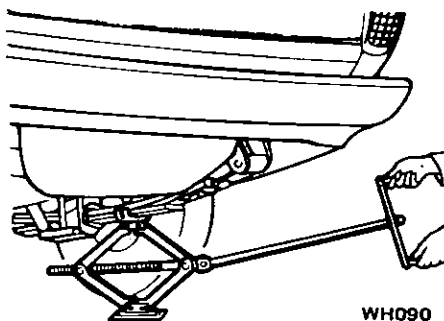


Fig. GI-6 Jack (Station Wagon)

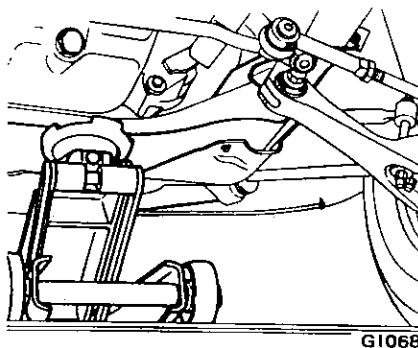


Fig. GI-8 Front jack up point

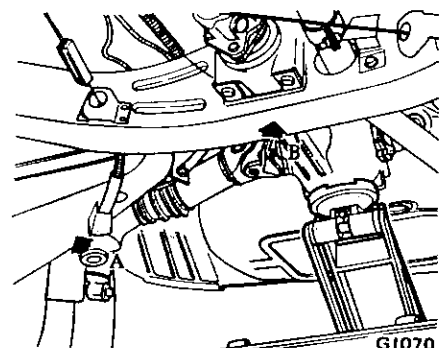


Fig. GI-10 Rear jack up points (Sedan)

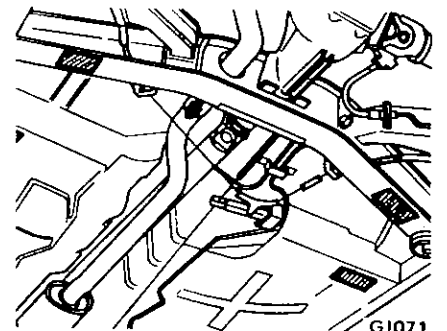
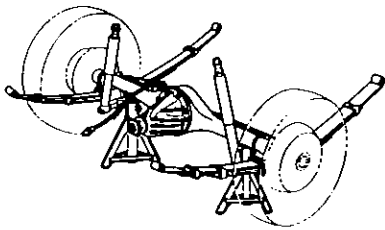


Fig. GI-11 Rear supportable points (Sedan)

GENERAL INFORMATION



G1072

Fig. GI-12 Rear supportable point (Station Wagon)

TOWING

Manual transmission model

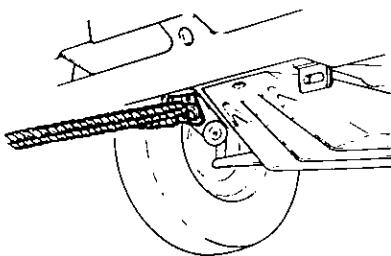
When the car is towed forward, connect the rope securely to the hook attached on the right side tension rod bracket. Do not tow the hook attached on the left side tension rod bracket. This bracket on the left is installed for the tie-down use only.

To tow another car, connect a rope to the rear bumper stay by using a waste to the bumper edge. (Sedan)

In case of the Station Wagon, the rope should be connected to the rear leaf spring shackle.

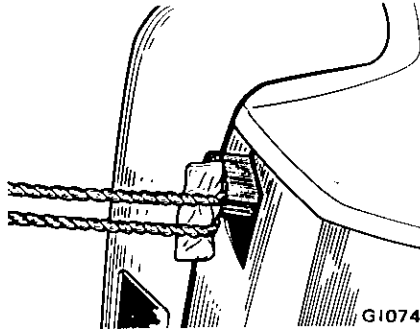
A towing rope should not be connected to any other positions than those described above.

Note: Do not attempt to apply load to a rope suddenly to prevent damage.



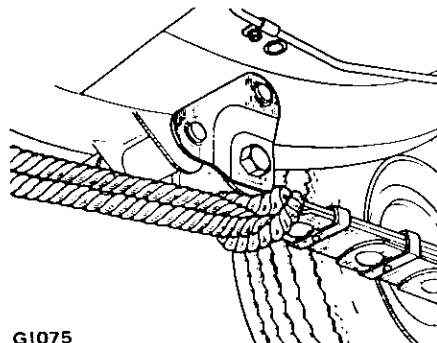
G1073

Fig. GI-13 Towing (front)



G1074

Fig. GI-14 Towing (rear, Sedan)



G1075

Fig. GI-15 Towing (rear, Station Wagon)

Automatic transmission model

The car may be towed safely on its rear wheels on the ground with the select lever in "N" (Neutral) position of at speeds of less than 30 km/h (18.7 MPH). However, the propeller shaft must be disconnected or the car must be towed on its front wheels on the ground under the following conditions:

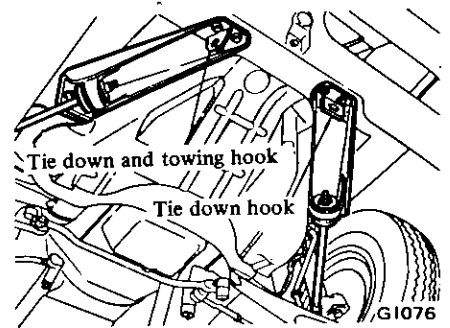
1. Tow speed of more than 30 km/h (18.7 MPH).
2. Car must be towed for a long distance [over 10 km (6 miles)].
3. Transmission is not operating properly.

If car is towed on its front wheels on the ground, the steering wheel should be secured to maintain a straight ahead position.

TIE-DOWN

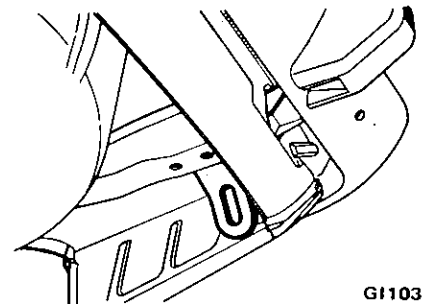
The front tie-down hook is located on both the tension rod brackets. The right side bracket is also available as a towing hook.

The rear tie-down hook is located on both the rear floor members securing with the bumper stay.



G1076

Fig. GI-16 Tie-down hook (front)



G1103

Fig. GI-17 Tie-down hook (rear)

SERVICE MANUAL

DATSUN 1800
MODEL 610 SERIES
CHASSIS & BODY



NISSAN MOTOR CO., LTD.
TOKYO, JAPAN

SECTION ER

ER

ENGINE REMOVAL & INSTALLATION

ENGINE REMOVAL ANDER- 2
INSTALLATION

ENGINE REMOVAL & INSTALLATION

ENGINE REMOVAL AND INSTALLATION

CONTENTS

REMOVAL	ER-2	Front insulator	ER-4
INSTALLATION	ER-4	Rear insulator	ER-4
ENGINE MOUNTING INSULATOR	ER-4	TIGHTENING TORQUE	ER-5

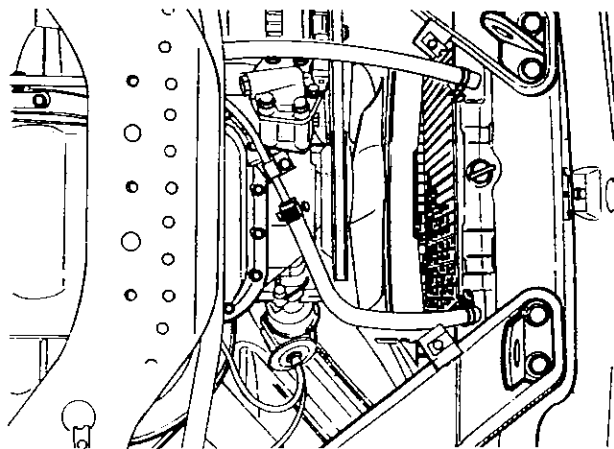
REMOVAL

It is much easier to remove engine with transmission as a single unit than to remove only engine from engine compartment. The engine can then be separated from transmission assembly.

Notes:

- Be sure to hoist engine and to jack up transmission in a safe manner.
- Fender cover should be used to prevent damaging vehicle body.

1. Disconnect battery ground cable.



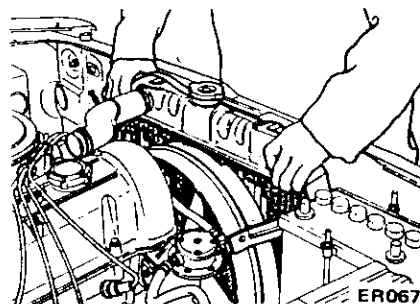
ER066

Fig. ER-1 Disconnecting oil cooler hose

2. Scribe hood mounting location of hood hinge and remove hood.
3. Remove air cleaner after disconnecting blow-by hose from rocker cover.
4. Drain radiator coolant and engine oil.
5. Remove radiator grille.

Note: On automatic transmission equipped vehicles,

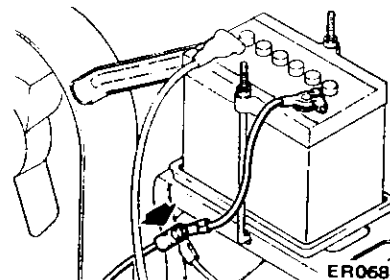
- Remove under cover.
- Disconnect oil cooler hose at oil cooler which is installed to radiator lower end.
- Then disconnect vacuum hose.



ER067

Fig. ER-2 Removing radiator

8. Disconnect engine ground cable at battery tray.



ER068

Fig. ER-3 Disconnecting engine ground cable

9. Disconnect wires at:
 - (1) Starter
 - (2) Alternator
 - (3) High tension cable at ignition coil
 - (4) Oil pressure switch and thermal transmitter
10. Disconnect:
 - (1) Fuel line at fuel pump
 - (2) Heater line at engine side
 - (3) Choke wire at carburetor
 - (4) Accelerator linkage

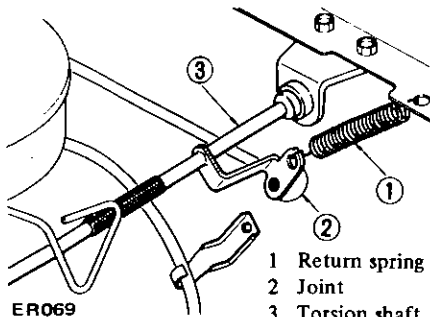
Note: The following is the removal sequence.

- Remove return spring and joint.
- Detach torsion shaft.

6. Disconnect upper and lower hoses from radiator.

7. Remove four bolts securing radiator and detach radiator.

ENGINE REMOVAL & INSTALLATION



ER069

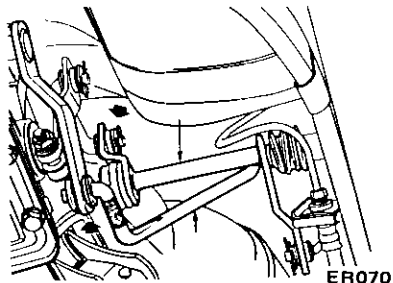
Fig. ER-4 Disconnecting accelerator linkage

(5) Disconnect parking wire at rear cable adjuster.

11. Remove transmission control linkage.

(1) For vehicles equipped with 3-speed transmission

Disconnect transmission cross shaft from control linkage, and rod shaft (2nd-top) from 2nd-top lever.

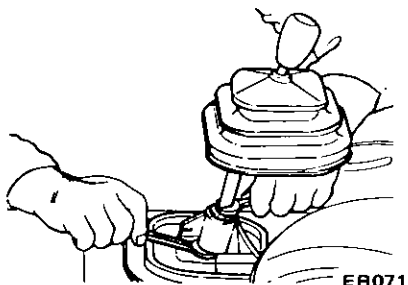


ER070

Fig. ER-5 Disconnecting cross and rod shafts

(2) For vehicles equipped with floor shift control

Detach rubber boot. Remove nut from shift lever and detach shift lever.

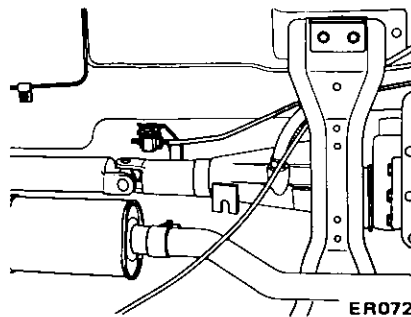


ER071

Fig. ER-6 Removing shift lever

(3) For vehicles equipped with automatic transmission

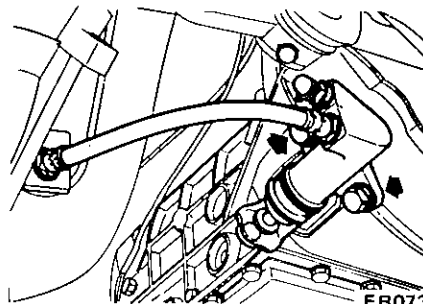
Disconnect joint between control lever and lower selector rod.



ER072

Fig. ER-7 Disconnecting range selector lever

12. Remove two bolts (shown by arrows) securing clutch operating cylinder. Then detach operating cylinder and flexible tube as an assembly.



ER073

Fig. ER-8 Removing clutch operating cylinder

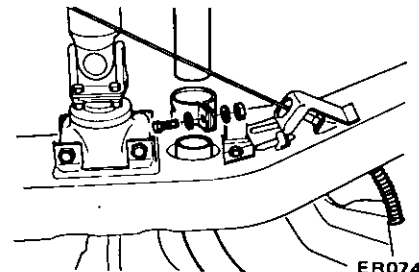
13. Disconnect speedometer cable and reverse lamp wiring.

Note: On automatic transmission equipped vehicles, also disconnect wires at:

- a. Kickdown switch
- b. Inhibitor switch

14. Disconnect exhaust front tube from exhaust manifold.

Then loosen connector between center and rear tubes. Detach front and center tubes as an assembly.

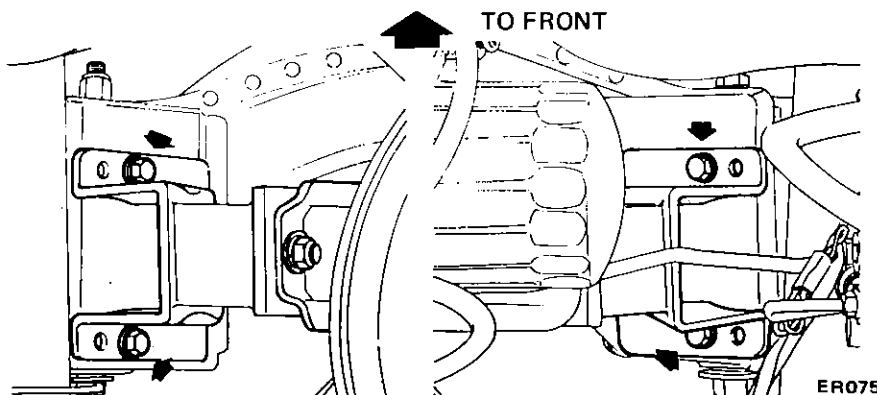


ER074

Fig. ER-9 Disconnecting exhaust front and center tube assembly

15. Disconnect propeller shaft at companion flange of gear carrier. Plug up rear end of rear extension housing of transmission to prevent oil leakage.

16. Attach a suitable wire to lift engine. Remove engine front mounting bolts (shown by arrows) at front suspension member.



ER075

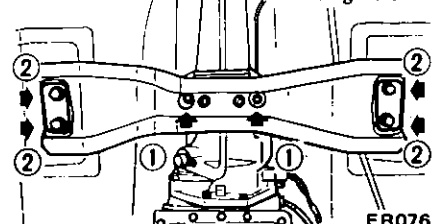
Fig. ER-10 Removing front mounting bolts

17. Place a jack under transmission and jack it up.

18. Loosen two (1 in Figure ER-11) engine rear mounting bolts.

19. Remove four (2 in Figure ER-11) bolts securing engine mounting rear support and detach it.

- 1 Engine rear mounting bolt
- 2 Engine mounting rear support securing bolt



ER076

Fig. ER-11 Removing engine mounting rear support

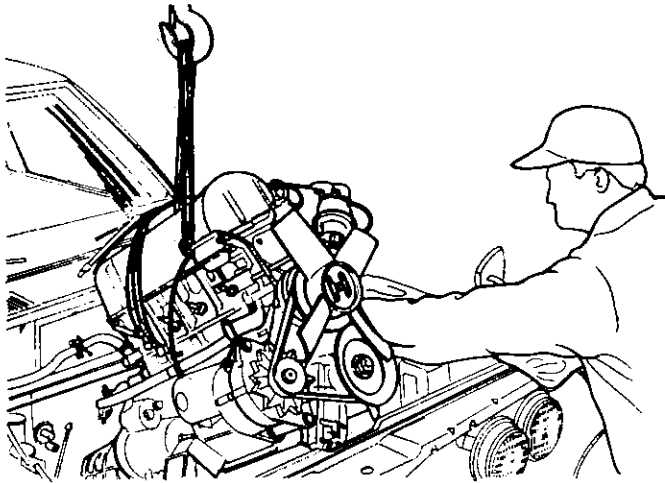
ENGINE REMOVAL & INSTALLATION

20. Raise engine with transmission by means of a hoist and cable. See Figure ER-12. Then support them on engine stand.

Note: In this operation, care should be always taken not to allow the unit hitting against any adjacent parts.

Notes:

- a. Replace front or rear insulator assembly, when rubber of engine mounting insulator is cracked, abnormally worn or deteriorated.
- b. Keep insulator free from oil or grease.

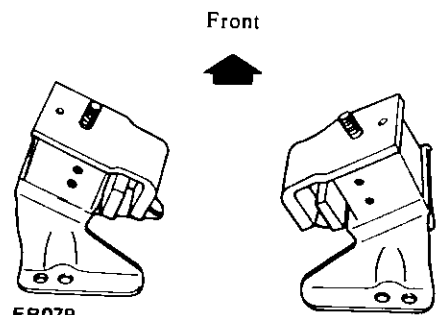


ER077

Fig. ER-12 Lifting engine and transmission

Front insulator

Distinguish between left and right mounting insulators by notch marks on insulator rubber, one notch is at front and two notches at rear.



ER079

Fig. ER-14 Front mounting insulator

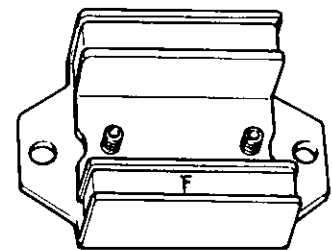
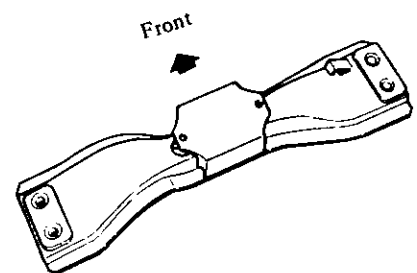
INSTALLATION

To install, reverse the order of removal. Do not connect any parts to the engine until engine mounting insulators are placed and power unit weight is supported by them.

- b. On automatic transmission equipped engine, be sure to secure oil cooler pipes at oil cooler.

Rear insulator

In assembling engine, always locate "F" mark on the rubber of rear mounting insulator facing toward the front.



ER080

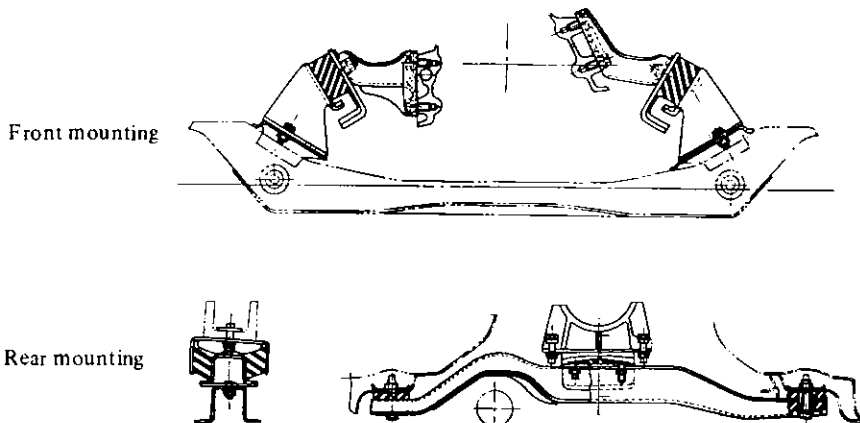
Fig. ER-15 Rear mounting insulator

Notes:

- a. As the sequence of installation, first secure engine mounting rear support to body.

ENGINE MOUNTING INSULATOR

Three insulators are used to mount the engine; two at left and right front ends of the cylinder block and one at transmission rear extension housing.



ER078

Fig. ER-13 Structural view of engine mounting