INTRODUCTION

How to Use This Manual

This manual is divided into 23 sections. The first page of each section is marked with a black tab that lines up with its corresponding thumb index tab on this page and the back cover. You can quickly find the first page of each section without looking through a full table of contents. The symbols printed at the top corner of each page can also be used as a quick reference system.

Each section includes:

1. A table of contents, or an exploded view index showing:
   - Parts disassembly sequence.
   - Bolt torques and thread sizes.
   - Page references to descriptions in text.
2. Disassembly/assembly procedures and tools.
3. Inspection.
4. Testing/troubleshooting.
5. Repair.
6. Adjustments.

Special Information

⚠ WARNING Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.

CAUTION: Indicates a possibility of personal injury or equipment damage if instructions are not followed.

NOTE: Gives helpful information.

CAUTION: Detailed descriptions of *standard workshop* procedures, safety principles and service operations are not included. Please note that this manual contains warnings and cautions against some specific service methods which could cause PERSONAL INJURY, damage a vehicle or make it unsafe. Please understand that these warnings cannot cover all conceivable ways in which service, whether or not recommended by HONDA, might be done, or of the possible hazardous consequences of every conceivable way, nor could HONDA investigate all such ways. Anyone using service procedures or tools, whether or not recomended by HONDA, *must satisfy himself thoroughly* that neither personal safety nor vehicle safety will be jeopardized.

First Edition 7/93 1448 pages
All Rights Reserved
Specifications Apply to U.S.A. and Canada

HONDA MOTOR CO.,LTD.
Service Publication office

As sections with * include SRS components, special precautions are required when servicing.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

The Integra SRS includes a driver's airbag, located in the steering wheel hub. In addition, all models except the RS model for Canada have a front passenger's airbag located in the dashboard above the glove box. Information necessary to safely service the SRS is included in this Service Manual. Items marked with an asterisk (*) on the contents page include, or are located near, SRS components. Servicing, disassembling or replacing these items will require special precautions and tools, and should therefore be done by an authorized Acura dealer.

⚠ WARNING

- **To avoid rendering the SRS inoperative, which could lead to personal injury or death in the event of a severe frontal collision, all SRS service work must be performed by an authorized Acura dealer.**
- **Improper service procedures, including incorrect removal and installation of the SRS, could lead to personal injury caused by unintentional activation of the airbags.**
- **All SRS electrical wiring harnesses are covered with yellow insulation. Related components are located in the steering column, front console, dashboard, and dashboard lower panel, and in the dashboard above the glove box. Do not use electrical test equipment on these circuits.**

NOTE: The original radio has a coded theft protection circuit. Be sure to get the customer's code number before
— disconnecting the battery.
— removing the No. 32 (7.5 A) fuse from the under-hood fuse/relay box.
— removing the radio.
After service, reconnect power to the radio and turn it on. When the word "CODE" is displayed, enter the customer's 5-digit code to restore radio operation.

General Information

Chassis and Paint Codes
U.S.Model

Vehicle Identification Number

JH4DB754*RS000001

Manufacturer, Make and Type of Vehicle
- JH4: HONDA MOTOR CO., LTD. ACURA Passenger car

Line, Body and Engine Type
- DB7: INTEGRA 4-door/B18B1
- DB8: INTEGRA 4-door/B18C1
- DC2: INTEGRA 3-door/B18C1
- DC4: INTEGRA 3-door/B18B1

Body Type and Transmission Type
- 3: 2-door Hatchback 5-speed Manual
- 4: 2-door Hatchback 4-speed Automatic
- 5: 4-door Sedan 5-speed Manual
- 6: 4-door Sedan 4-speed Automatic

Vehicle Grade (Series)
- 4: RS
- 5: LS
- 8: GS-R

Check Digit

Model Year
- R: 1994

Factory Code
- S: Suzuka Factory in Japan

Serial Number

Engine Number

B18B1-1300001

Engine Type
- B18B1: 1.8 ℓ DOHC Sequential Multi-port Fuel-injected engine
- B18C1: 1.8 ℓ DOHC VTEC Sequential Multi-port Fuel-injected engine

Serial Number

Transmission Number

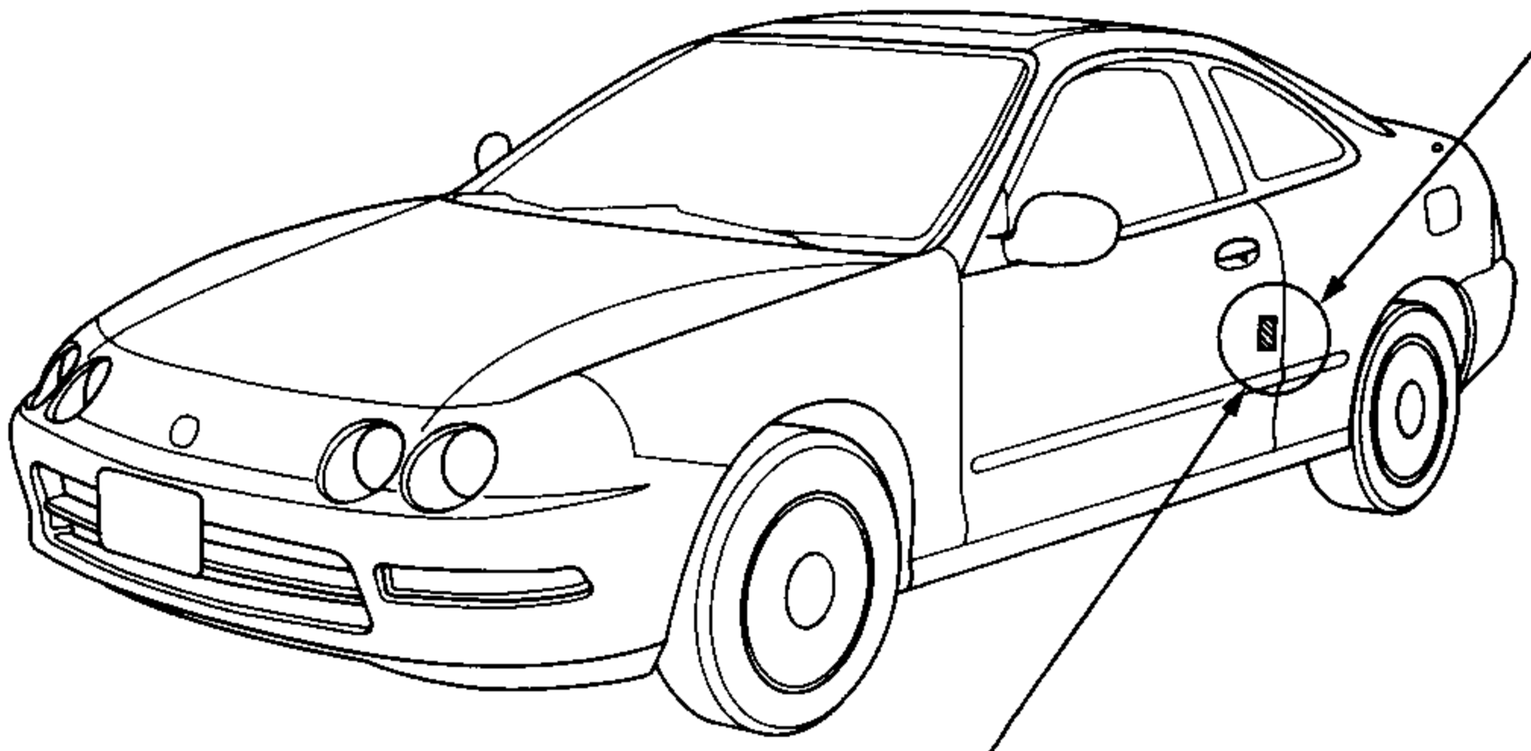
Y80-1000001

Transmission Type
- Y80: Manual
- MP7A: Automatic

Serial Number

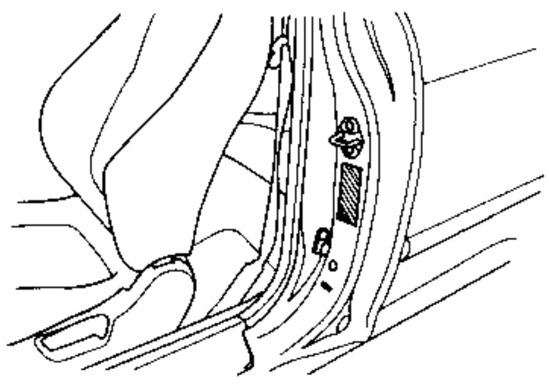
Paint Code

COLOR
BG-33P

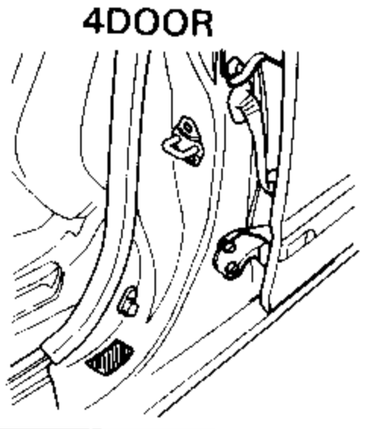


Vehicle Identification Number and Federal Motor Vehicle Safety Standard Certification

3DOOR



4DOOR



Paint Code

Paint Code	Color
BG-33P	Paradise Blue-green Pearl
G-71P	Lausanne Green Pearl
NH-503P	Granada Black Pearl
NH-538	Frost White
NH-575M	Thunder Gray Metallic
R-72P	Torino Red Pearl
R-81	Milano Red
RP-24P	Stealth Gray Pearl
YR-503M	Rosewood Brown Metallic

Canada Model

Vehicle Identification Number

JH4DB753*RS800001

Manufacturer, Make and Type of Vehicle
- JH4: HONDA MOTOR CO., LTD. ACURA Passenger car

Line, Body and Engine Type
- DB7: INTEGRA 4-door/B18B1
- DC2: INTEGRA 3-door/B18C1
- DC4: INTEGRA 3-door/B18B1

Body Type and Transmission Type
- 3: 2-door Hatchback 5-speed Manual
- 4: 2-door Hatchback 4-speed Automatic
- 5: 4-door Sedan 5-speed Manual
- 6: 4-door Sedan 4-speed Automatic

Vehicle Grade (Series)
- 3: RS without passenger SRS airbag
- 4: RS with passenger SRS airbag
- 5: LS
- 8: GS-R

Check Digit

Model Year
- R: 1994

Factory Code
- S: Suzuka Factory in Japan

Serial Number

Engine Number

B18B1-1700001

Engine Type
- B18B1: 1.8 ℓ DOHC Sequential Multi-port Fuel-injected engine
- B18C1: 1.8 ℓ DOHC VTEC Sequential Multi-port Fuel-injected engine

Serial Number

Transmission Number

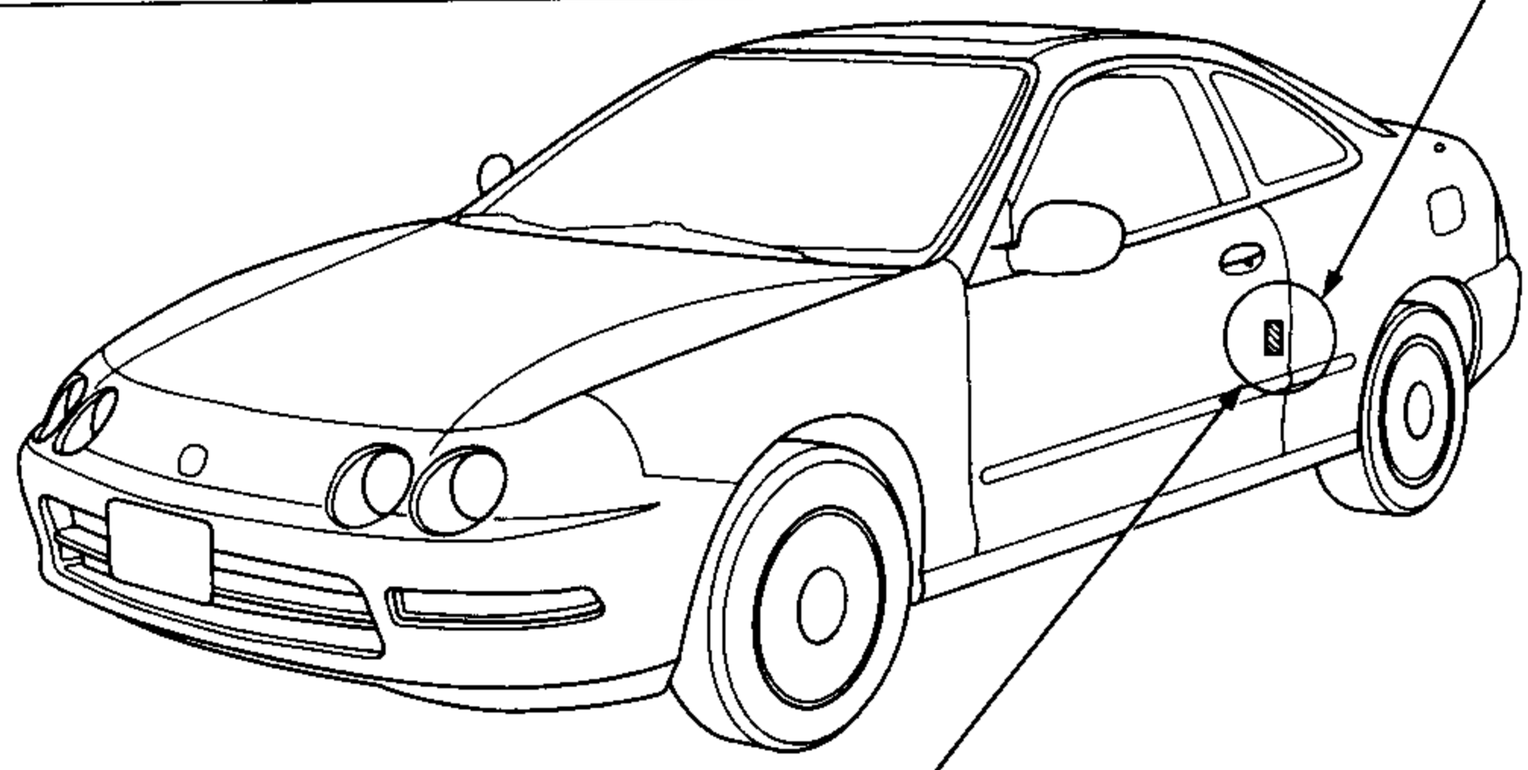
Y80-1000001

Transmission Type
- Y80: Manual
- MP7A: Automatic

Serial Number

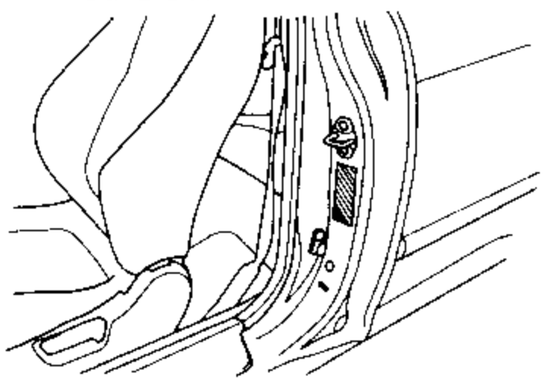
Paint Code

COLOR
BG-33P

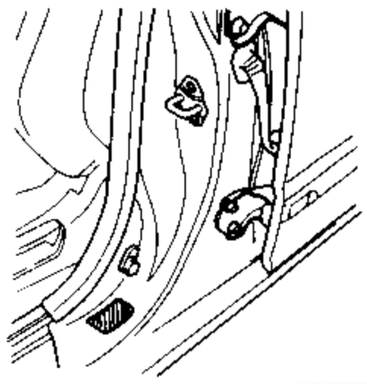


Vehicle Identification Number and Canadian Motor Vehicle Safety Standard Certification

3DOOR



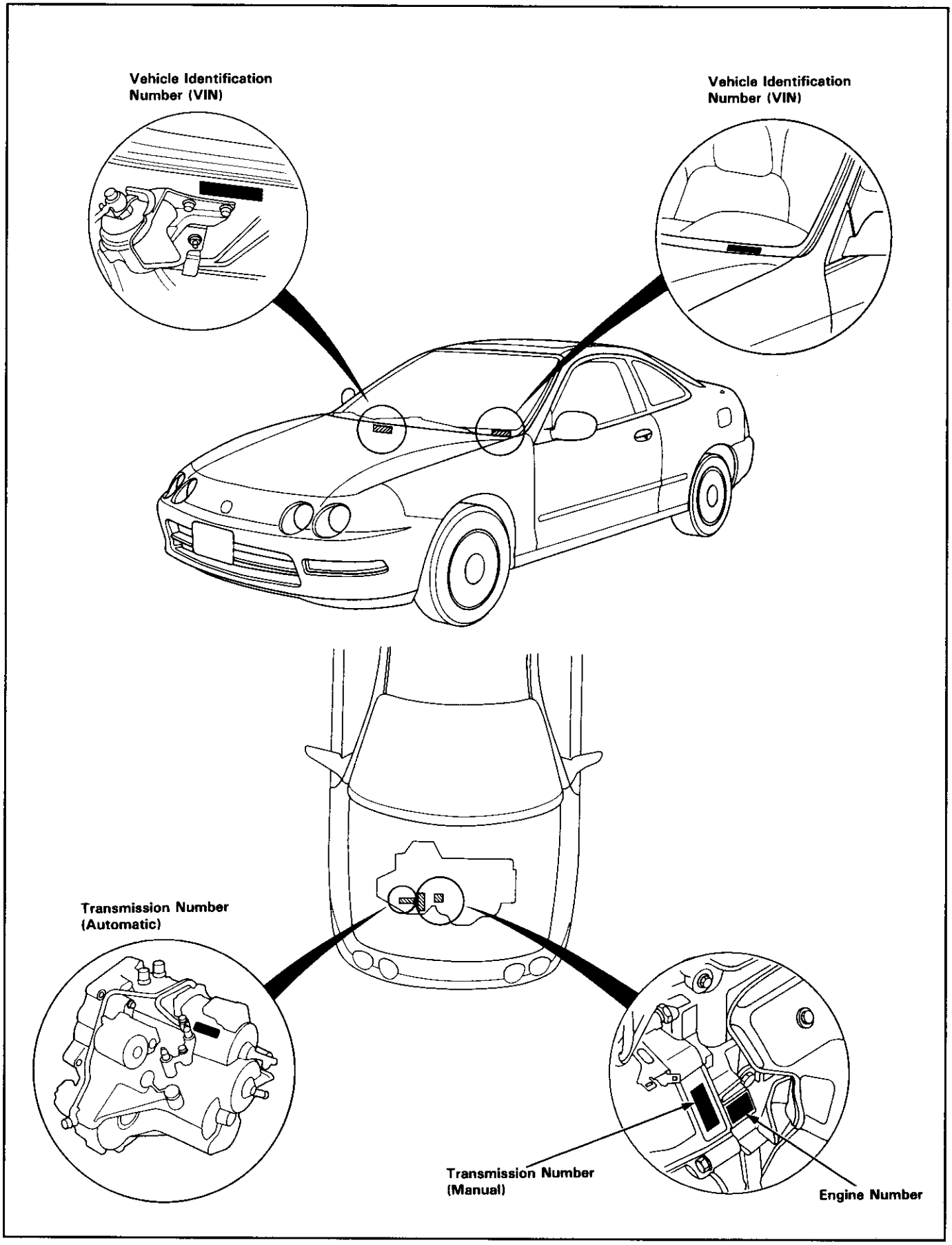
4DOOR



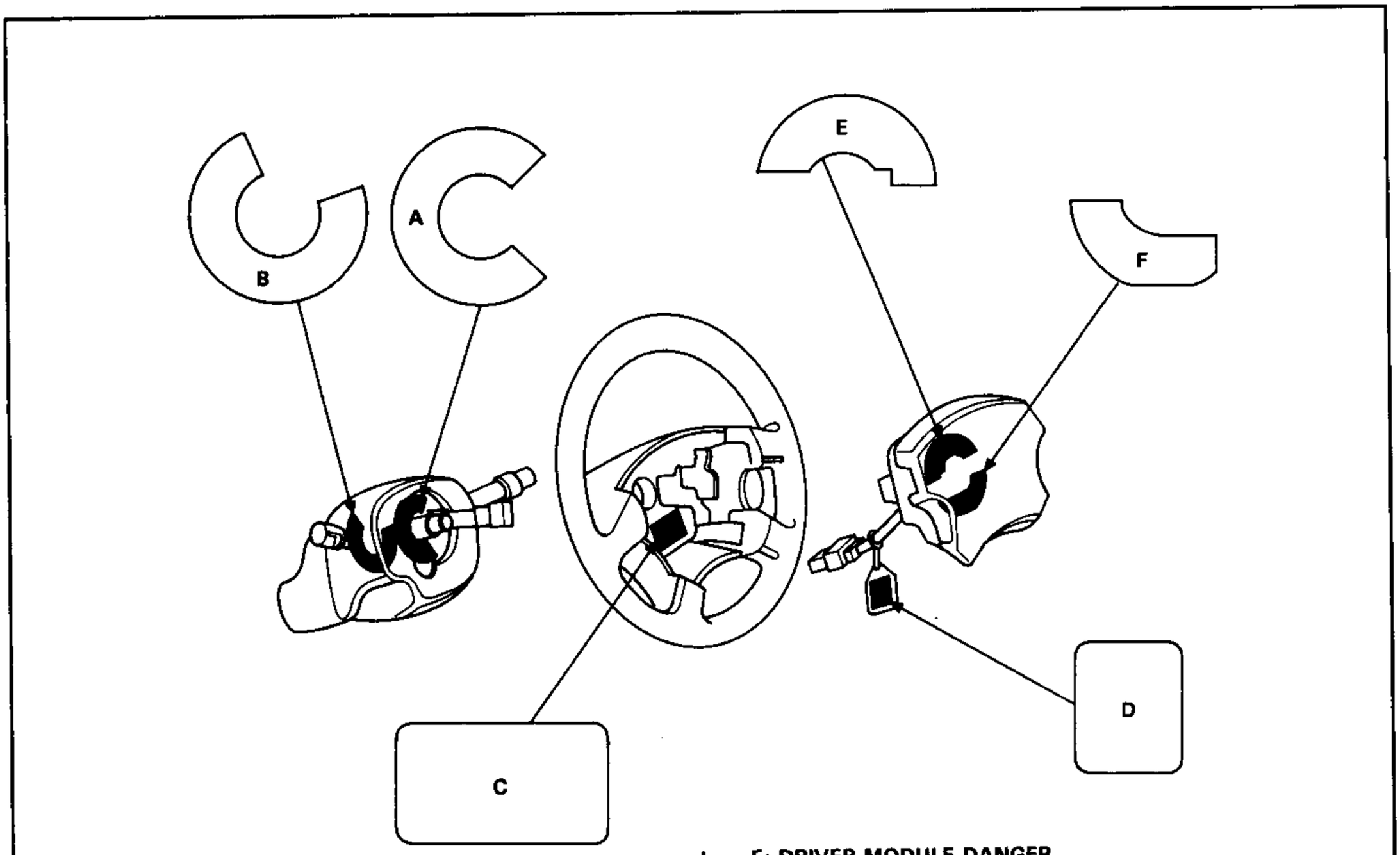
Paint Code

Paint Code	Color
BG-33P	Paradise Blue-green Pearl
G-71P	Lausanne Green Pearl
NH-503P	Granada Black Pearl
NH-538	Frost White
NH-575M	Thunder Gray Metallic
R-72P	Torino Red Pearl
R-81	Milano Red
RP-24P	Stealth Gray Pearl
YR-503M	Rosewood Brown Metallic

Identification Number Locations



Warning/Caution Label Locations



A: CABLE REAL CAUTION A

SRS
REFER TO SERVICE MANUAL FOR DETAILED INSTRUCTION

B: CABLE REAL CAUTION B

SRS
REFER TO SERVICE MANUAL FOR DETAILED INSTRUCTION

C: STEERING WHEEL NOTICE

NOTICE
IMPROPER STEERING WHEEL REMOVAL OR INSTALLATION DAMAGE SRS COMPONENT.
FOLLOW SERVICE MANUAL INSTRUCTION CAREFULLY.

D: DRIVER INFLATOR WARNING TAG

WARNING SRS
TO PREVENT ACCIDENTAL DEPLOYMENT AND POSSIBLE INJURY:
ALWAYS INSTALL THE PROTECTIVE SHORT CONNECTOR ON THE INFLATOR CONNECTOR WHEN THE HARNESS IS DISCONNECTED.

E: DRIVER MODULE DANGER

⚠ DANGER
EXPLOSIVE/FLAMMABLE
CONTACT WITH ACID, WATER OR HEAVY METALS SUCH AS COPPER, LEAD OR MERCURY MAY PRODUCE HARMFUL AND IRRITATING GASES OR EXPLOSIVE COMPOUNDS.
STORAGE TEMPERATURES MUST NOT EXCEED 200°F (100°C). FOR PROPER HANDLING, STORAGE AND DISPOSAL PROCEDURES REFER TO THE SERVICE MANUAL, SRS SUPPLEMENT.
POISON
CONTAINS POISONOUS SODIUM AZIDE AND POTASSIUM NITRATE.
FIRST AID
IF CONTENTS ARE SWALLOWED, INDUCE VOMITING.
FOR EYE CONTACT, FLUSH EYES WITH WATER 15 MINUTES. IF GASES (FROM ACID OR WATER CONTACT) ARE INHALED, SEEK FRESH AIR. IN EVERY CASE, GET PROMPT MEDICAL ATTENTION.
KEEP OUT OF REACH OF CHILDREN

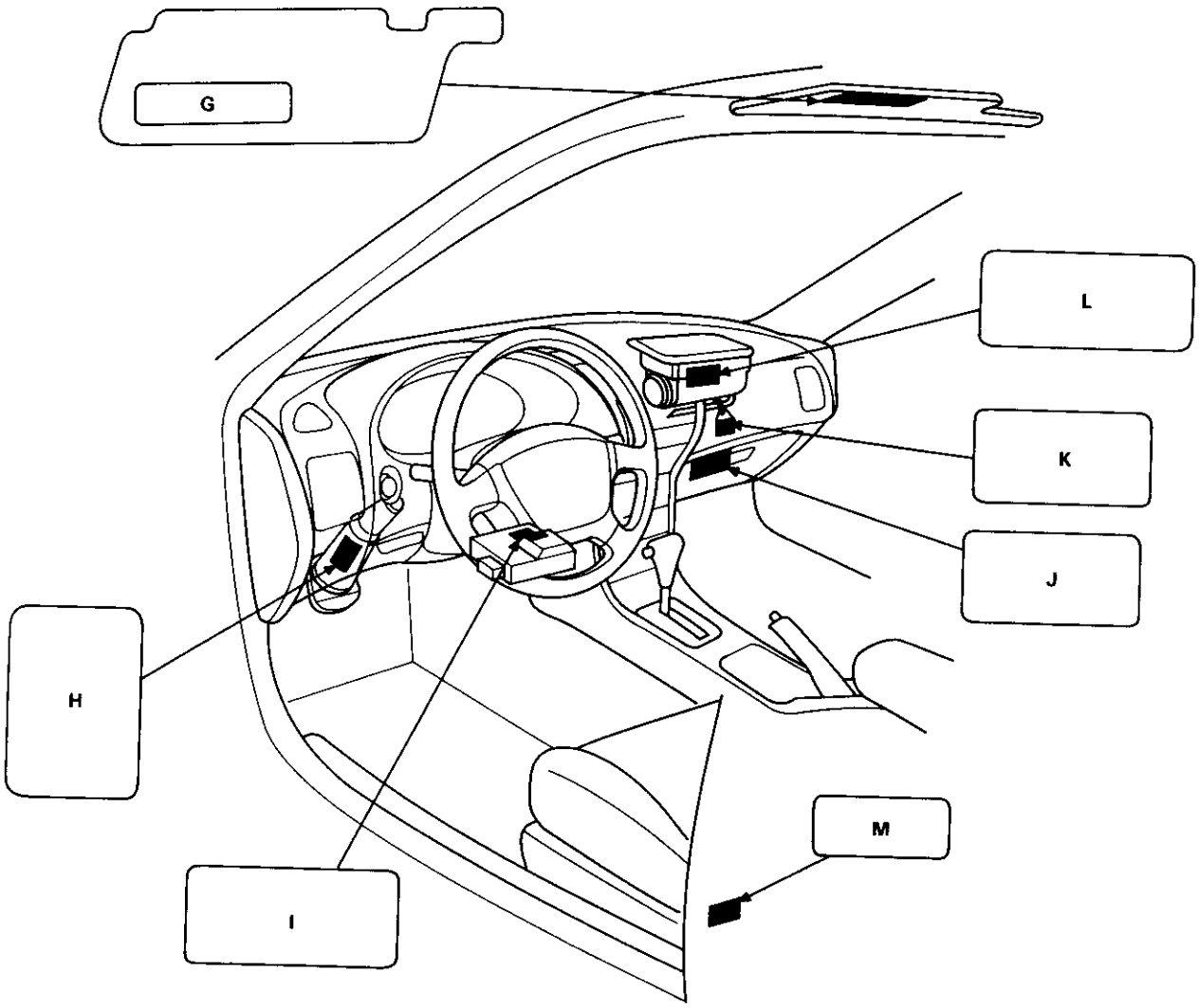
F: DRIVER MODULE WARNING

⚠ WARNING
THE AIRBAG INFLATOR IS EXPLOSIVE AND, IF ACCIDENTALLY DEPLOYED, CAN SERIOUSLY HURT OR KILL YOU.
- DO NOT USE ELECTRICAL TEST EQUIPMENT OR PROBING DEVICES.
  THEY CAN CAUSE ACCIDENTAL DEPLOYMENT.
- NO SERVICEABLE PARTS INSIDE. DO NOT DISASSEMBLE.
- PLACE AIRBAG UPRIGHT WHEN REMOVED.
- FOLLOW SERVICE MANUAL INSTRUCTIONS CAREFULLY.

(cont'd)

Warning/Caution Label Locations

(cont'd)



G: DRIVER INFORMATION (SUNVISOR)

SRS ALWAYS WEAR YOUR SEAT BELT
- THIS CARS EQUIPPED WITH A DRIVER AIRBAG AS A SUPPLEMENTAL RESTRAINT SYSTEM (SRS).
- IT IS DESIGNED TO SUPPLEMENT THE SEAT BELT.
- BEFORE DRIVING, READ LABEL INSIDE THE GLOVE BOX.

G: DRIVER INFORMATION (SUNVISOR)*

SRS ALWAYS WEAR YOUR SEAT BELT
- THIS CAR IS EQUIPPED WITH A DRIVER AIRBAG AND A FRONT SEAT PASSENGER AIRBAG AND A FRONT SEAT PASSENGER AIRBAG AS A SUPPLEMENTAL RESTRAINT SYSTEM (SRS)
- IT IS DESIGNED TO SUPPLEMENT THE SEAT BELT.
- BEFORE DRIVING, READ LABEL INSIDE THE GLOVE BOX.

H: STEERING COLUMN NOTICE

NOTICE
TO PREVENT SRS DAMAGE, REMOVE STEERING WHEEL BEFORE REMOVING STEERING SHAFT CONNECTING BOLT.

I: MONITOR NOTICE

NOTICE SRS
- NO SERVICEABLE PARTS INSIDE
- REFER TO SERVICE MANUAL FOR DETAILED INSTRUCTIONS.

*This version of the label is used in cars with a front seat passenger's airbag.

J: GLOVE BOX INFORMATION

AIRBAG INFORMATION
SUPPLEMENTAL RESTRAINT SYSTEM (SRS)
- THE SRS MUST BE INSPECTED TEN YEARS AFTER IT IS INSTALLED. THE DATE OF INSTALLATION IS SHOWN ON THE CERTIFICATION PLATE, LOCATED ON THE DRIVER'S DOOR JAMB.
- DIAGNOSTIC CHECKS AND REPLACEMENT OF SRS COMPONENTS MUST BE DONE BY AN AUTHORIZED DEALER
- SEE YOUR OWNER'S MANUAL FOR ADDITIONAL SRS INFORMATION.

K: FRONT SEAT PASSENGER INFLATOR WARNING TAG

⚠ WARNING
ACCIDENTAL AIRBAG DEPLOYMENT CAN SERIOUSLY HURT OR KILL YOU.
INSTALL THE RED SERVICE CONNECTOR WHEN THE INFLATOR HARNESS IS DISCONNECTED.

L: FRONT SEAT PASSENGER MODULE DANGER

⚠ DANGER
EXPLOSIVE/FLAMMABLE
CONTACT WITH ACID, WATER OR HEAVY METALS SUCH AS COPPER, LEAD OR MERCURY MAY PRODUCE HARMFUL AND IRRITATING GASES OR EXPLOSIVE COMPOUNDS.
STORGE TEMPERATURES MUST NOT EXCEED 200°F (100°C). FOR PROPER HANDLIING, STORAGE AND DISPOSAL PROCEDURES REFER TO THE SERVICE MANUAL, SRS SUPPLEMENT.
POISON
CONTAINS POISONOUS SODIUM AZIDE AND POTASSIUM NITRATE.
FIRST AID
IF CONTENTS ARE SWALLOWED, INDUCE VOMITING.
FOR EYE CONTACT, FLUSH EYES WITH WATER FOR 15 MINUTES.
IF GASES (FROM ACID OR WATER CONTACT) ARE INHALED, SEEK FRESH AIR. IN EVERY CASE, GET PROMPT MEDICAL ATTENTION.
KEEP OUT OF REACH OF CHILDREN.

⚠ WARNING
THE AIRBAG INFLATOR IS EXPLOSIVE AND, IF ACCIDENTALLY DEPLOYED, CAN SERIOUSLY HURT OR KILL YOU.
- DO NOT USE ELECTRICAL TEST EQUIPMENT OR PROBING DEVICES.
  THEY CAN CAUSE ACCIDENTAL DEPLOYMENT.
- NO SERVICEABLE PARTS INSIDE. DO NOT DISASSEMBLE.
- PLACE AIRBAG UPRIGHT WHEN REMOVED.
- FOLLOW SERVICE MANUAL INSTRUCTIONS CAREFULLY.

M: AIRBAG LABEL

AIRBAG

N: SRS WARNING (ENGINE HOOD)

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)
THIS VEHICLE IS EQUIPPED WITH DRIVER SIDE AIRBAG.
ALL SRS ELECTRICAL WIRING AND CONNECTORS ARE COLORED YELLOW.
TAMPERING WITH, DISCONNECTING OR USING ELECTRICAL TEST EQUIPMENT ON THE SRS WIRING CAN MAKE THE SYSTEM INOPERATIVE OR CAUSE ACCIDENTAL FIRING OF THE INFLATOR.

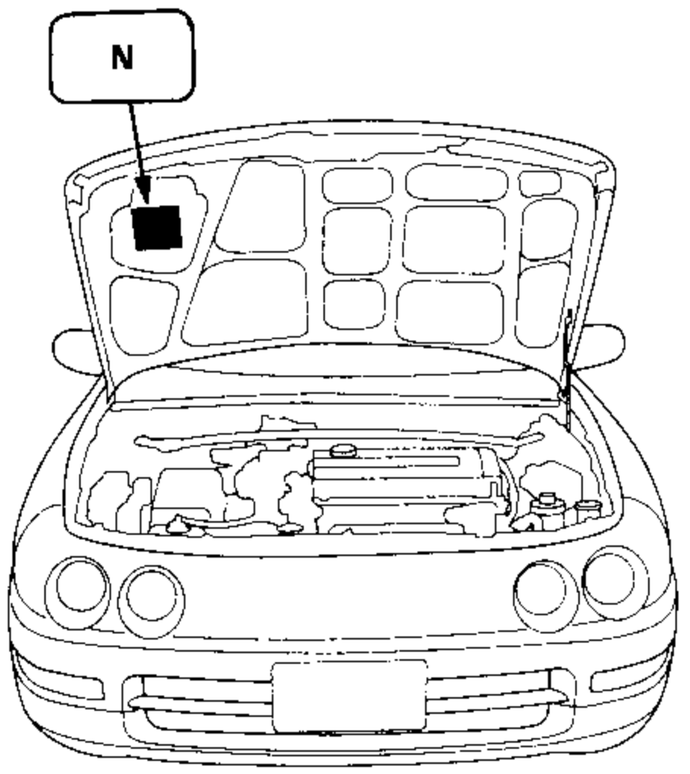
⚠ WANING
THE AIRBAG INFLATOR IS EXPLOSIVE AND, IF ACCIDENTALLY DEPLOYED, CAN SERIOUSLY HURT YOU.
FOLLOW SERVICE MANUAL INSTRUCTIONS CAREFULLY.

N: SRS WARNING (ENGINE HOOD)*

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)
THIS VEHICLE IS EQUIPPED WITH DRIVER AND FRONT SEAT PASSENGER AIRBAGS.
ALL SRS ELECTRICAL WIRING AND CONNECTORS ARE COLORED YELLOW.
TAMPERING WITH, DISCONNECTING OR USING ELECTRICAL TEST EQUIPMENT ON THE SRS WIRING CAN MAKE THE SYSTEM INOPERATIVE OR CAUSE ACCIDENTAL FIRING OF THE INFLATOR.

⚠ WARNING
THE AIRBAG INFLATOR IS EXPLOSIVE AND, IF ACCIDENTALLY DEPLOYED, CAN SERIOUSLY HURT YOU.
FOLLOW SERVICE MANUAL INSTRUCTIONS CAREFULLY.

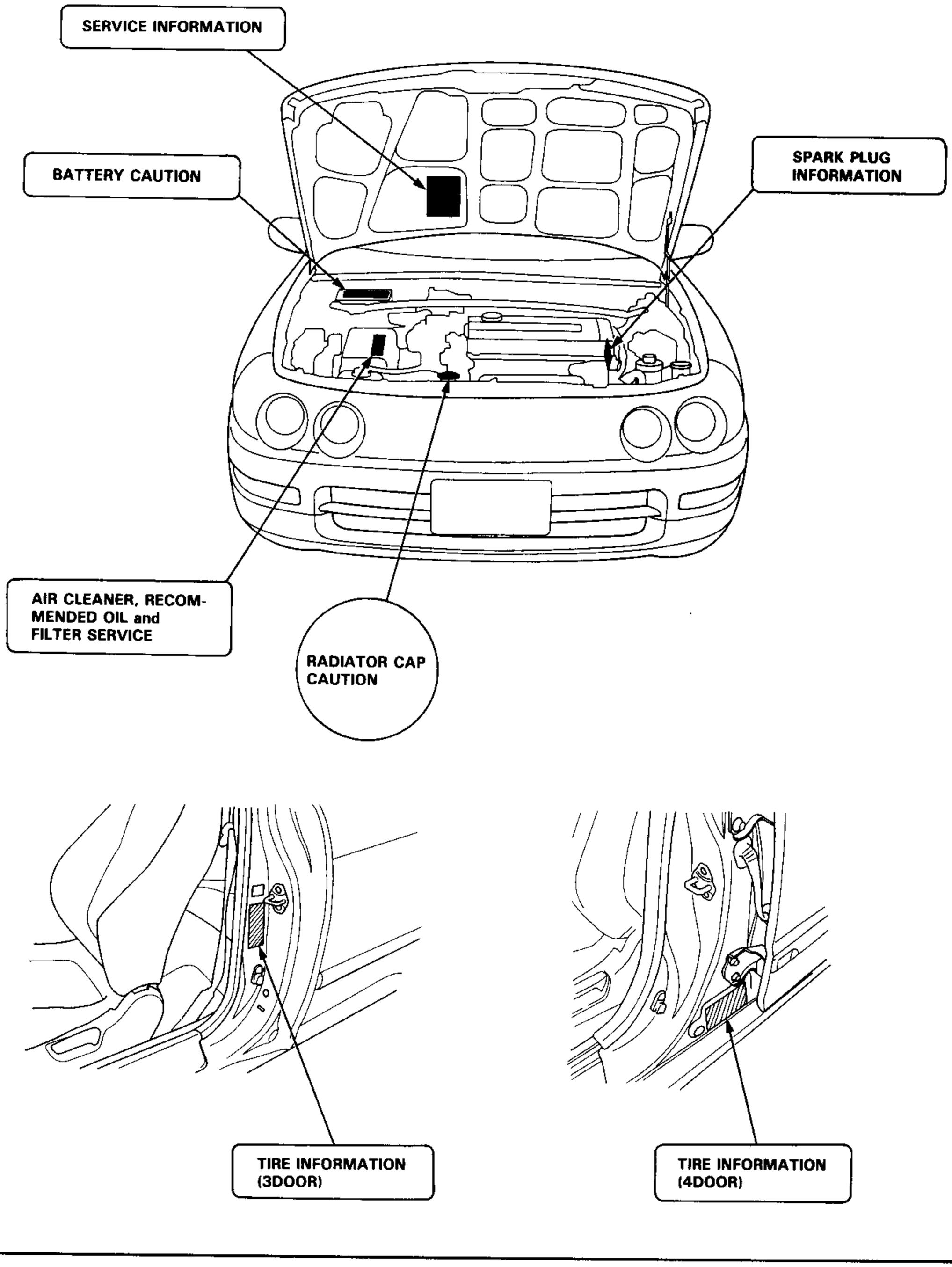
*This version of the label is used in cars with a front seat passenger's airbag.



(cont'd)

Warning/Caution Label Locations

(cont'd)



Lift and Support Points

Lift

⚠ WARNING When heavy rear components such as suspension, fuel tank, spare tire and hatch are to be removed, place additional weight in the luggage area before hoisting. When substantial weight is removed from the rear of the car, the center of gravity may change and can cause the car to tip forward on the hoist.

NOTE: Since each tire/wheel assembly weighs approximately 14 kg (30 lbs), placing the front wheels in trunk can assist with the weight distribution.

1. Place the lift blocks as shown.
2. Raise the hoist a few inches (centimeters) and rock the car to be sure it is firmly supported.
3. Raise the hoist to full height and inspect lift points for solid support.

Lift and Support Points

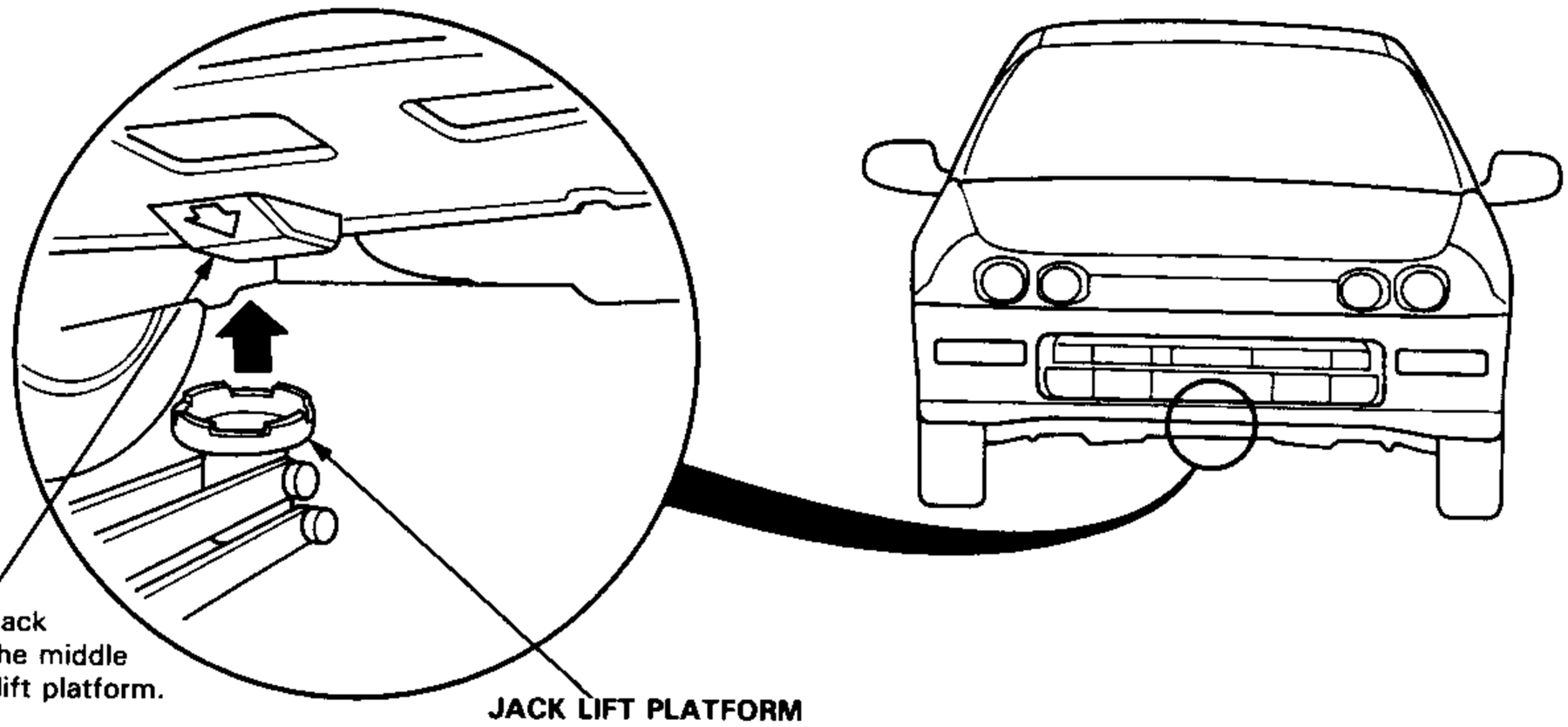
Floor Jack

1. Set the parking brake and block the wheels that are not being lifted.
2. When lifting the rear of the car, put the gearshift lever in reverse (Automatic transmission in [P] position).
3. Raise the car high enough to insert the safety stands.
4. Adjust and place the safety stands as shown on page 1-11 so the car will be approximately level, then lower the car onto them.

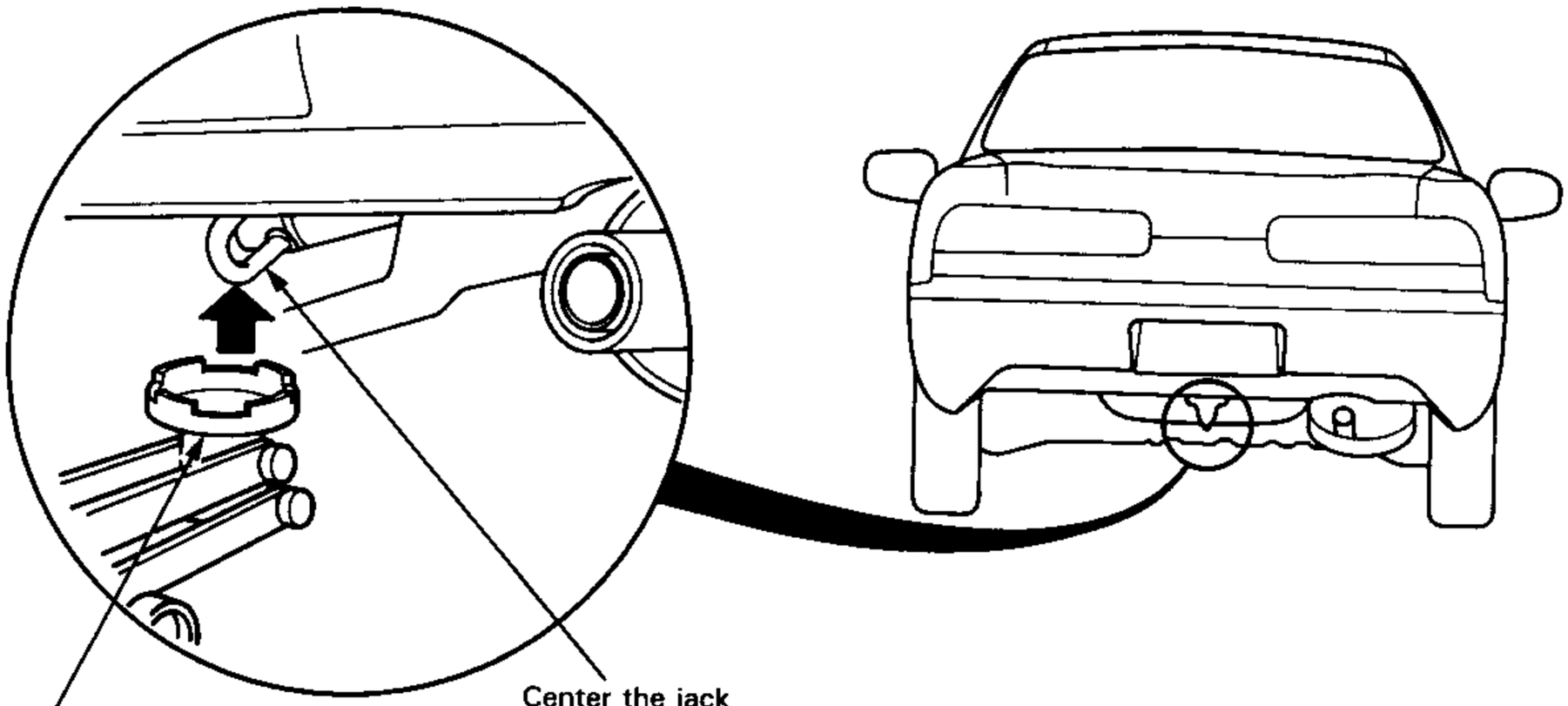
⚠ WARNING

- **Always use safety stands when working on or under any vehicle that is supported by only a jack.**
- **Never attempt to use a bumper jack for lifting or supporting the car.**

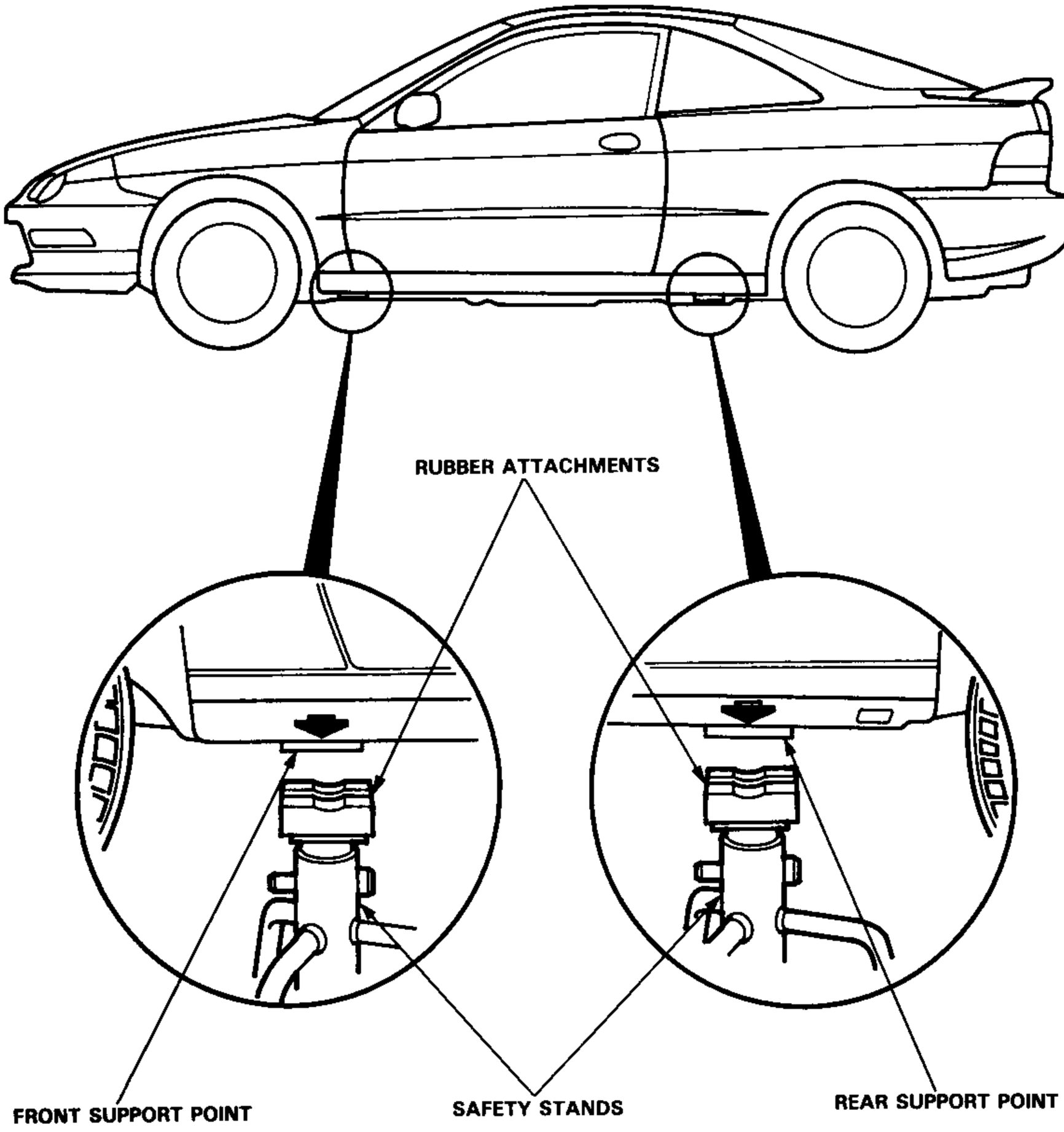
Front



Rear



Safety Stands



Towing

If the car needs to be towed, call a professional towing service. Never tow the car behind another car with just a rope or chain. It is very dangerous.

Emergency Towing
There are three popular methods of towing a car:

Flat-bed Equipment—The operator loads the car on the back of a truck. This is the best way of transporting the car.

Wheel Lift Equipment—The tow truck uses two pivoting arms that go under the tires (front or rear) and lifts them off the ground. The other two wheels remain on the ground.

Sling-type Equipment—The tow truck uses metal cables with hooks on the ends. These hooks go around parts of the frame or suspension and the cables lift that end of the car off the ground. The car's suspension and body can be seriously damaged if this method of towing is attempted.

If the car cannot be transported by flat-bed, it should be towed with the front wheels off the ground. If due to damage, the car must be towed with the front wheels on the ground, do the following:

Manual Transmission
- Release the parking brake.
- Shift the transmission to Neutral.

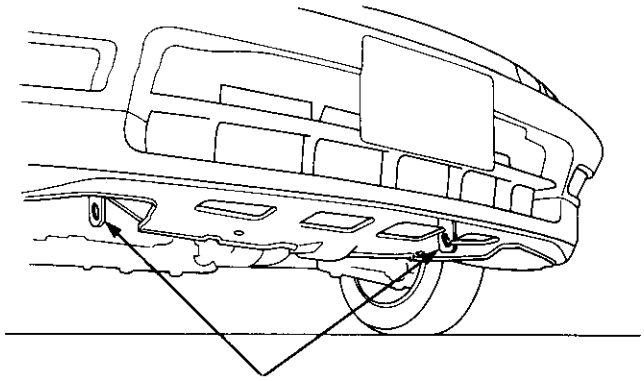
Automatic Transmission
- Release the parking brake.
- Start the engine.
- Shift to [D4] position, then to [N] position.
- Turn off the engine.

NOTICE: Improper towing preparation will damage the transmission. Follow the above procedure exactly. If you cannot shift the transmission or start the engine (automatic transmission), your car must be transported on a flat-bed.

- It is best to tow the car no farther than 50 miles (80 km), and keep the speed below 35 mph (55 km/h).

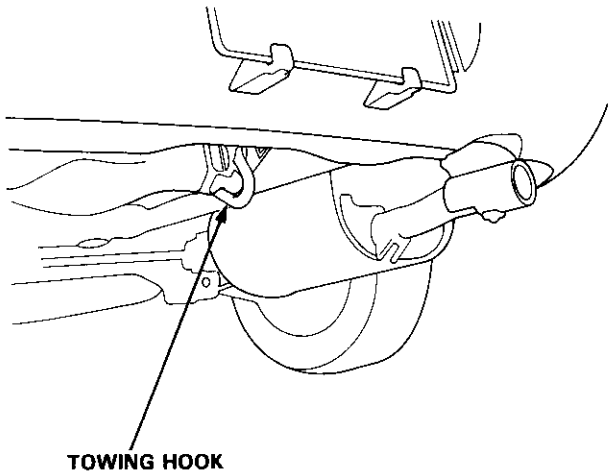
NOTICE: Trying to lift or tow your car by the bumpers will cause serious damage. The bumpers are not designed to support the car's weight.

Front:



TOWING HOOKS

Rear:



TOWING HOOK

Special Tools

Individual tool lists are located at the front of each section.

Specifications

Standards and Service Limits

Cylinder Head/Valve Train (B18B1 engine) — Section 6

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Compression	250 rpm and wide open throttle kPa (kgf/cm², psi)	Nominal	1,370 (14.0, 199)	
		Minimum	930 (9.5, 140)	
		Maximum variation	200 (2.0, 28)	
Cylinder head	Warpage		—	0.05 (0.002)
	Height		131.95 – 132.05 (5.195 – 5.199)	—
Camshaft	End play		0.05 – 0.15 (0.002 – 0.006)	0.5 (0.02)
	Camshaft-to-holder oil clearance		0.030 – 0.069 (0.0012 – 0.0027)	0.15 (0.006)
	Total runout		0.03 (0.001) max.	0.04 (0.002)
	Cam lobe height	IN	33.716 (1.3274)	—
		EX	33.528 (1.3200)	—
Valve	Valve clearance (Cold)*	IN	0.08 – 0.12 (0.003 – 0.005)	—
		EX	0.16 – 0.20 (0.006 – 0.008)	—
	Valve stem O.D.	IN	6.580 – 6.590 (0.2591 – 0.2594)	6.55 (0.258)
		EX	6.550 – 6.560 (0.2579 – 0.2583)	6.52 (0.257)
	Stem-to-guide clearance	IN	0.02 – 0.05 (0.001 – 0.002)	0.08 (0.003)
		EX	0.05 – 0.08 (0.002 – 0.003)	0.11 (0.004)
Valve seat	Width	IN	1.25 – 1.55 (0.049 – 0.061)	2.0 (0.08)
		EX	1.25 – 1.55 (0.049 – 0.061)	2.0 (0.08)
	Stem installed height	IN	40.765 – 41.235 (1.6049 – 1.6234)	41.485 (1.6333)
		EX	42.765 – 43.235 (1.6837 – 1.7022)	43.485 (1.7120)
Valve spring	Free length (Reference)	IN	42.36 (1.668)	41.56 (1.636)
		EX NH	47.09 (1.854)	46.27 (1.822)
		CH	47.08 (1.854)	46.27 (1.822)
Valve guide	I.D.	IN	6.61 – 6.63 (0.260 – 0.261)	6.65 (0.262)
		EX	6.61 – 6.63 (0.260 – 0.261)	6.65 (0.262)
	Installed height	IN	13.75 – 14.25 (0.541 – 0.561)	—
		EX	15.75 – 16.25 (0.620 – 0.640)	—

*: Measured between the camshaft and rocker arm.
NH: NIHON HATSUJO manufactured valve spring
CH: CHUO HATSUJO manufactured valve spring

Unit of length: mm (in)

Engine Block (B18B1 engine) — Section 7

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface		0.07 (0.003) max.	0.10 (0.004)
	Bore diameter		81.00 – 81.02 (3.189 – 3.190)	81.07(3.192)
	Bore taper		—	0.05 (0.002)
	Reboring limit		—	0.25 (0.010)
Piston	Skirt O.D. at 15 mm (0.6 in) from bottom of skirt		80.98 – 80.99 (3.188 – 3.189)	80.97 (3.188)
	Clearance in cylinder		0.01 – 0.04 (0.0004 – 0.0016)	0.05 (0.002)
	Groove width (For ring)	Top	1.030 – 1.040 (0.0406 – 0.0409)	1.06 (0.042)
		Second	1.230 – 1.240 (0.0484 – 0.0488)	1.26 (0.050)
		Oil	2.805 – 2.820 (0.1104 – 0.1110)	2.84 (0.112)
Piston ring	Ring-to-groove clearance	Top	0.045 – 0.070 (0.0018 – 0.0028)	0.13 (0.005)
		Second R	0.040 – 0.065 (0.0016 – 0.0026)	0.13 (0.005)
		T	0.045 – 0.070 (0.0018 – 0.0028)	0.13 (0.005)
	Ring end gap	Top R	0.20 – 0.35 (0.008 – 0.014)	0.60 (0.024)
		T	0.20 – 0.30 (0.008 – 0.012)	0.60 (0.024)
		Second	0.40 – 0.55 (0.016 – 0.022)	0.70 (0.028)
		Oil R	0.20 – 0.50 (0.008 – 0.020)	0.70 (0.028)
		T	0.20 – 0.45 (0.008 – 0.018)	0.70 (0.028)
Piston Pin	O.D.		20.994 – 21.000 (0.8265 – 0.8268)	—
	Pin-to-piston clearance		0.010 – 0.022 (0.0004 – 0.0009)	—
Connecting rod	Pin-to-rod interference		0.013 – 0.032 (0.0005 – 0.0013)	—
	Small end bore diameter		20.968 – 20.981 (0.8255 – 0.8260)	—
	Large end bore diameter	Nominal	48.0 (1.89)	—
	End play installed on crankshaft		0.15 – 0.30 (0.006 – 0.012)	0.40 (0.016)
Crankshaft	Main journal diameter			
		No. 1, 2, 4 and 5 journals	54.976 – 55.000 (2.1644 – 2.1654)	—
		No. 3 journal	54.970 – 54.994 (2.1642 – 2.1651)	—
	Rod journal diameter		44.976 – 45.000 (1.7707 – 1.7717)	—
	Taper		0.005 (0.0002) max.	0.010 (0.0004)
	Out-of-round		0.005 (0.0002) max.	0.010 (0.0004)
	End play		0.10 – 0.35 (0.004 – 0.014)	0.45 (0.018)
	Runout		0.03 (0.001) max.	0.04 (0.002)
Bearing	Main bearing-to-journal oil clearance			
		No. 1, 2, 4 and 5 journals	0.024 – 0.042 (0.0009 – 0.0017)	0.050 (0.0020)
		No. 3 journal	0.030 – 0.048 (0.0012 – 0.0019)	0.060 (0.0024)
	Rod bearing-to-journal oil clearance		0.020 – 0.038 (0.0008 – 0.0015)	0.050 (0.0020)

R: RIKEN manufacture piston ring
T: TEIKOKU PISTON RING manufacture piston ring

Standards and Service Limits

Cylinder Head/Valve Train (B18C1 engine) — Section 6

	MEASUREMENT				STANDARD (NEW)	SERVICE LIMIT
Compression	250 rpm and wide open throttle kPa (kgf/cm², psi)		Nominal Minimum Maximum variation		1,860 (19.0, 270) 930 (9.5, 140) 200 (2.0, 28)	
Cylinder head	Warpage Height				— 141.95 – 142.05 (5.589 – 5.593)	0.05 (0.002) —
Camshaft	End play Camshaft-to-holder oil clearance Total runout Cam lobe height	 IN EX 	 Primary Mid Secondary Primary Mid Secondary	 	0.05 – 0.15 (0.002 – 0.006) 0.050 – 0.089 (0.0020 – 0.0035) 0.015 (0.0006) max. 33.411 (1.3154) 36.377 (1.4322) 34.547 (1.3601) 33.111 (1.3036) 35.720 (1.4063) 34.381 (1.3536)	0.5 (0.02) 0.15 (0.006) 0.03 (0.001) — — — — — —
Valve	Valve clearance (Cold)*			IN EX	0.15 – 0.19 (0.006 – 0.007) 0.17 – 0.21 (0.007 – 0.008)	— —
	Valve stem O.D.			IN EX	5.475 – 5.485 (0.2156 – 0.2159) 5.450 – 5.460 (0.2146 – 0.2150)	5.445 (0.2144) 5.420 (0.2134)
	Stem-to-guide clearance			IN EX	0.025 – 0.055 (0.0010 – 0.0022) 0.050 – 0.080 (0.0020 – 0.0031)	0.08 (0.003) 0.11 (0.004)
Valve seat	Width			IN EX	1.25 – 1.55 (0.049 – 0.061) 1.25 – 1.55 (0.049 – 0.061)	2.0 (0.08) 2.0 (0.08)
	Stem installed height			IN EX	37.465 – 37.935 (1.4750 – 1.4935) 37.165 – 37.635 (1.4632 – 1.4817)	38.185 (1.5033) 37.885 (1.4915)
Valve spring	Free length (Reference)	IN	Outer Inner	 NH CH	41.05 (1.616) 36.16 (1.424) 36.19 (1.425)	40.26 (1.585) 35.30 (1.390) 35.30 (1.390)
		EX		NH CH	41.96 (1.652) 41.94 (1.651)	40.95 (1.612) 40.95 (1.612)
Valve guide	I.D. Installed height			IN EX IN EX	5.51 – 5.53 (0.217 – 0.218) 5.51 – 5.53 (0.217 – 0.218) 12.55 – 13.05 (0.494 – 0.514) 12.55 – 13.05 (0.494 – 0.514)	5.55 (0.219) 5.55 (0.219) — —
Rocker arm	Arm-to-shaft clearance			IN EX	0.025 – 0.052 (0.0010 – 0.0020) 0.025 – 0.052 (0.0010 – 0.0020)	0.08 (0.003) 0.08 (0.003)

*: Measured between the camshaft and rocker arm.
NH: NIHON HATSUJO manufacture valve spring
CH: CHUO HATSUJO manufacture valve spring

Unit of length: mm (in)

Engine Block (B18C1 engine) — Section 7

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface		0.05 (0.002) max.	0.08 (0.003)
	Bore diameter		81.00 – 81.02 (3.189 – 3.190)	81.07 (3.192)
	Bore taper		———	0.05 (0.002)
	Reboring limit		———	0.25 (0.010)
Piston	Skirt O.D. at 15 mm (0.6 in) from bottom of skirt		80.98 – 80.99 (3.188 – 3.189)	80.97 (3.188)
	Clearance in cylinder		0.01 – 0.04 (0.0004 – 0.0016)	0.05 (0.002)
	Groove width (For ring)	Top	1.030 – 1.040 (0.0406 – 0.0409)	1.060 (0.0417)
		Second	1.230 – 1.240 (0.0484 – 0.0488)	1.260 (0.0496)
		Oil	2.805 – 2.820 (0.1104 – 0.1110)	2.840 (0.1118)
Piston ring	Ring-to-piston groove clearance	Top	0.045 – 0.070 (0.0018 – 0.0028)	0.13 (0.005)
		Second	0.040 – 0.065 (0.0016 – 0.0026)	0.13 (0.005)
	Ring end gap	Top	0.20 – 0.35 (0.008 – 0.014)	0.60 (0.024)
		Second	0.40 – 0.55 (0.016 – 0.022)	0.70 (0.028)
		Oil	0.20 – 0.50 (0.008 – 0.020)	0.70 (0.028)
Piston Pin	O.D.		20.994 – 21.000 (0.8265 – 0.8268)	———
	Pin-to-piston clearance		0.010 – 0.022 (0.0004 – 0.0009)	———
Connecting rod	Pin-to-rod interference		0.017 – 0.036 (0.0007 – 0.0014)	———
	Small end bore diameter		20.964 – 20.997 (0.8254 – 0.8267)	———
	Large end bore diameter	Nominal	48.0 (1.89)	———
	End play installed on crankshaft		0.15 – 0.30 (0.006 – 0.012)	0.40 (0.016)
Crankshaft	Main journal diameter			
		No. 1, 2, 4 and 5 journals	54.976 – 55.000 (2.1644 – 2.1654)	———
		No. 3 journal	54.974 – 54.998 (2.1643 – 2.1653)	———
	Rod journal diameter		44.976 – 45.000 (1.7707 – 1.7717)	———
	Taper		0.005 (0.0002) max.	———
	Out-of round		0.004 (0.0002) max.	0.006 (0.0002)
	End play		0.10 – 0.35 (0.004 – 0.014)	0.45 (0.018)
	Runout		0.020 (0.0008) max.	0.03 (0.0012)
Bearing	Main bearing-to-journal oil clearance			
		No. 1, 2, 4 and 5 journals	0.024 – 0.042 (0.0009 – 0.0017)	0.050 (0.0020)
		No. 3 journal	0.030 – 0.048 (0.0012 – 0.0019)	0.060 (0.0024)
	Rod bearing-to-journal oil clearance		0.032 – 0.050 (0.0013 – 0.0020)	0.060 (0.0024)

Standards and Service Limits

Engine Lubrication — Section 8

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Engine oil	Capacity ℓ (US qt, Imp qt)	B18B1 engine	4.6 (4.9, 4.0) for engine overhaul 3.8 (4.0, 3.3) for oil change, including filter 3.5 (3.7, 3.1) for oil change, without filter	
		B18C1 engine	4.8 (5.1, 4.2) for engine overhaul 4.0 (4.2, 3.5) for oil change, including filter 3.7 (3.9, 3.3) for oil change, without filter	
Oil pump	Inner-to-outer rotor clearance		0.04 – 0.16 (0.002 – 0.006)	0.20 (0.008)
	Pump housing-to-outer rotor clearance		0.10 – 0.19 (0.004 – 0.007)	0.21 (0.008)
	Pump housing-to-rotor axial clearance		0.02 – 0.07 (0.001 – 0.003)	0.15 (0.006)
Relief valve	Pressure setting at engine oil temp. 176°F (80°C) kPa (kgf/cm², psi)	At idle	70 (0.7, 10) min.	
		At 3,000 rpm	340 (3.5, 50) min.	

Cooling — Section 10

	MEASUREMENT		STANDARD (NEW)
Radiator	Coolant capacity ℓ (US qt, Imp qt) [Including engine, heater, cooling line and reservoir]	B18B1 engine	M/T: 6.4 (6.8, 5.6) for overhaul 4.4 (4.6, 3.9) for coolant change* A/T: 6.7 (7.1, 5.9) for overhaul 4.7 (5.0, 4.1) for coolant change*
	Reservoir capacity: 0.6 ℓ (0.63 US qt, 0.53 Imp qt)	B18C1 engine	M/T: 6.7 (7.1, 5.9) for overhaul 4.7 (5.0, 4.1) for coolant change*
Radiator cap	Opening pressure kPa (kgf/cm², psi)		93 – 123 (0.95 – 1.25, 13.5 – 17.8)
Thermostat	Start to open °F (°C)		169 – 176 (76 – 80)
	Fully open °F (°C)		194 (90)
	Valve lift at fully open		8.0 (0.31) min.
Cooling fan	Thermoswitch "ON" temperature °F (°C)		196 – 203 (91 – 95)
	Thermoswitch "OFF" temperature °F (°C)		Subtract 5 – 14 (3 – 8) from actual "ON" temperature

*: Including the coolant in the reservoir and that remaining in the engine.

Unit of length: mm (in)

Fuel and Emissions — Section 11

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Fuel pump	Displacement in 12 V, 10 seconds mℓ (fl oz, Imp oz)	B18B1 engine B18C1 engine	222 (7.5, 7.8) min. 364 (12.3, 12.8) min.	120 (4.1, 4.2) 100 (3.4, 3.5)
Pressure regulator	Pressure with regulator vacuum hose disconnected kPa (kgf/cm², psi)	B18B1 engine B18C1 engine	275 – 324 (2.80 – 3.30, 39.8 – 46.9) 329 – 378 (3.35 – 3.85, 47.6 – 5.47)	
Fuel tank	Capacity ℓ (US gal, Imp gal)		50 (13.2, 11.0)	
Engine	Idle speed with headlight and cooling fan off rpm		750 ± 50 (M/T: neutral) 750 ± 50 (A/T: N or P position)	
	Fast idle rpm		1,600 ± 200 (M/T: neutral) 1,600 ± 200 (A/T: N or P position)	
	Idle CO %		0.1 max.	

Clutch — Section 12

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Clutch pedal	Pedal height Stroke Pedal play Disengagement height	to floor to floor	164 (6.46) 130 – 140 (5.12 – 5.51) 12 – 21 (0.47 – 0.83) 83 (3.27) min.	—— —— —— ——
Flywheel	Clutch surface runout		0.05 (0.002) max.	0.15 (0.006)
Clutch disc	Rivet head depth Thickness		1.3 (0.05) min. 8.4 – 9.1 (0.33 – 0.36)	0.2 (0.01) 6.0 (0.24)
Pressure plate	Warpage Diaphragm spring finger alignment		0.03 (0.001) max. 0.6 (0.02) max.	0.15 (0.006) 0.8 (0.03)

Standards and Service Limits

Manual Transmission — Section 13

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission oil	Capacity ℓ (US qt, Imp qt)	2.2 (2.3, 1.9) for oil change 2.3 (2.4, 2.0) for assembly	
Mainshaft	End play	0.11 – 0.18 (0.004 – 0.007)	Adjust
	Diameter of ball bearing contact area (clutch housing side)	27.977 – 27.990 (1.101 – 1.102)	27.93 (1.10)
	Diameter of 3rd gear contact area	37.984 – 38.000 (1.495 – 1.496)	37.93 (1.493)
	Diameter of ball bearing contact area (transmission housing side)	27.987 – 28.000 (1.1018 – 1.1024)	27.94 (1.10)
	Runout	0.02 (0.0008) max.	0.05 (0.002)
Mainshaft 3rd and 4th gears	I.D.	43.009 – 43.025 (1.6933 – 1.6939)	43.08 (1.696)
	End play	0.06 – 0.21 (0.0024 – 0.0083)	0.3 (0.012)
	Thickness 3rd	34.92 – 34.97 (1.3748 – 1.3768)	34.8 (1.370)
	Thickness 4th	31.42 – 31.47 (1.2370 – 1.2390)	31.3 (1.232)
Mainshaft 5th gear	I.D.	43.009 – 43.025 (1.6933 – 1.6939)	43.08 (1.696)
	End play	0.06 – 0.21 (0.0024 – 0.0083)	0.3 (0.012)
	Thickness	31.42 – 31.47 (1.237 – 1.239)	31.3 (1.232)
Countershaft	Diameter of needle bearing contact area	33.000 – 33.015 (1.299 – 1.300)	32.95 (1.297)
	Diameter of ball bearing contact area	24.980 – 24.993 (0.9835 – 0.9840)	24.94 (0.982)
	Diameter of 1st gear contact area	36.984 – 37.000 (1.4561 – 1.4567)	36.93 (1.454)
	Runout	0.02 (0.0008) max.	0.05 (0.002)
Countershaft 1st gear	I.D.	42.009 – 42.025 (1.6539 – 1.6545)	42.08 (1.657)
	End play	0.04 – 0.12 (0.0016 – 0.0047)	Adjust
Countershaft 2nd gear	I.D.	47.009 – 47.025 (1.8507 – 1.8514)	47.08 (1.854)
	End play	0.05 – 0.12 (0.0020 – 0.0047)	Adjust
	Thickness B18B1 engine	34.62 – 34.67 (1.3630 – 1.3650)	34.5 (1.358)
	Thickness B18C1 engine	28.92 – 28.97 (1.1386 – 1.1405)	28.8 (1.134)
Spacer collar (Countershaft 2nd gear)	I.D.	36.48 – 36.49 (1.4362 – 1.4366)	36.5 (1.437)
	O.D.	41.989 – 42.000 (1.6531 – 1.6535)	41.94 (1.651)
	Length A	29.02 – 29.04 (1.1425 – 1.1433)	———
	Length B	29.07 – 29.09 (1.1444 – 1.1453)	———
Spacer collar (Mainshaft 4th and 5th gears)	I.D.	31.002 – 31.012 (1.2205 – 1.2209)	31.06 (1.223)
	O.D.	37.989 – 38.000 (1.4956 – 1.4961)	37.94 (1.494)
	Length A	56.45 – 56.55 (2.2224 – 2.2264)	———
	Length B	26.03 – 26.08 (1.0248 – 1.0268)	———

Unit of length: mm (in)

— Manual Transmission — Section 13

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Reverse idler gear *1	I.D. Gear-to-reverse gear shaft clearance	20.016 – 20.043 (0.7880 – 0.7891) 0.036 – 0.084 (0.0014 – 0.0033)	20.09 (0.7909) 0.16 (0.006)
Synchro ring	Ring-to-gear clearance (ring pushed against gear)	0.85 – 1.10 (0.033 – 0.043)	0.4 (0.016)
Double cone synchro ring *2	Clearance (ring pushed against gear) Outer synchro ring-to-gear Inner synchro ring-to-gear Outer synchro ring-to-synchro cone	 0.95 – 1.68 (0.037 – 0.066) 0.5 – 1.0 (0.02 – 0.04) 0.5 – 1.0 (0.02 – 0.04)	 0.6 (0.024) 0.3 (0.01) 0.3 (0.01)
Shift fork	Shift fork finger thickness Fork-to-synchro sleeve clearance	7.4 – 7.6 (0.291 – 0.299) 0.35 – 0.65 (0.014 – 0.026)	—— 1.0 (0.039)
Reverse shift fork	Shift fork pawl groove width Fork-to-reverse idler gear clearance "L" groove width at 5th gear side at reverse gear side Fork-to-5th/reverse shift piece pin clearance at 5th gear side at reverse gear side	13.0 – 13.3 (0.512 – 0.524) 0.5 – 1.1 (0.020 – 0.043) 7.40 – 7.70 (0.291 – 0.303) 7.05 – 7.25 (0.278 – 0.285) 0.4 – 0.9 (0.016 – 0.035) 0.05 – 0.45 (0.0020 – 0.018)	—— 1.8 (0.07) —— —— —— ——
Shift arm	Groove width of change piece contact area Change piece-to-shift arm clearance	11.8 – 12.0 (0.4646 – 0.4724) 0.05 – 0.35 (0.002 – 0.014)	—— 0.80 (0.031)
Shift piece	Groove width of shift arm contact area Shift piece-to-shift arm clearance I.D. Shift piece-to-shaft clearance Diameter of shift fork contact area Shift piece-to-shift fork shaft clearance	7.9 – 8.0 (0.311 – 0.315) 0.10 – 0.30 (0.004 – 0.012) 14.000 – 14.068 (0.551 – 0.554) 0.011 – 0.092 (0.0004 – 0.0036) 11.90 – 12.00 (0.469 – 0.472) 0.20 – 0.50 (0.008 – 0.020)	—— 0.60 (0.024) —— 0.150 (0.0059) —— 0.80 (0.031)
Selector arm	Diameter of change piece contact area Arm-to-change piece clearance Groove width of interlock contact area Arm-to-interlock clearance	11.90 – 12.00 (0.469 – 0.472) 0.05 – 0.35 (0.002 – 0.014) 10.05 – 10.15 (0.3957 – 0.3996) 0.05 – 0.25 (0.002 – 0.010)	—— 0.50 (0.020) —— 0.50 (0.020)

*1: B18B1 engine
*2: B18C1 engine

— Automatic Transmission — Section 14

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission fluid	Capacity ℓ (US qt, Imp qt)	5.9 (6.2, 5.2) for overhaul 2.7 (2.9, 2.4) for fluid change	
Hydraulic pressure kPa (kgf/cm², psi)	Line pressure at 2,000 rpm ([N] or [P] position)	830 – 880 (8.5 – 9.0, 120 – 130)	780 (8.0, 110)
	2nd clutch pressure at 2,000 rpm ([D4] position)	460 – (4.7, 67) throttle fully closed | 830 – 880 (8.5 – 9.0, 120 – 130) throttle more than 3/16 opened	410 (4.2, 60) throttle fully closed | 780 (8.0, 110) throttle more than 3/16 opened
	3rd clutch pressure at 2,000 rpm ([D4] position)		
	4th clutch pressure at 2,000 rpm ([D4] position)		
	2nd clutch pressure at 2,000 rpm ([2] position)	830 – 880 (8.5 – 9.0, 120 – 130)	780 (8.0, 110)
	1st clutch pressure at 2,000 rpm ([D4] or [1] position)	830 – 880 (8.5 – 9.0, 120 – 130)	780 (8.0, 110)
	1st-hold clutch pressure at 2,000 rpm ([1] position)	830 – 880 (8.5 – 9.0, 120 – 130)	780 (8.0, 110)
	Throttle pressure B Throttle fully closed Throttle fully opened	0 – 15 (0 – 0.15, 0 – 21) 830 – 880 (8.5 – 9.0, 120 – 130)	—— 780 (8.0, 110)
Stall speed rpm (Check with car on level ground)		2,200 – 2,600	Below 2,200, above 2,600

(cont'd)

Standards and Service Limits

Automatic Transmission (cont'd) — Section 14

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Clutch	Clutch initial clearance	1st, 2nd	0.65 – 0.85 (0.026 – 0.033)	———
		3rd, 4th	0.40 – 0.60 (0.016 – 0.024)	———
		1st-hold	0.5 – 0.8 (0.020 – 0.031)	———
	Clutch return spring free length	1st, 3rd, 4th	31.0 (1.22)	29.0 (1.14)
		2nd	33.2 (1.31)	31.2 (1.23)
		1st-hold	34.6 (1.36)	32.6 (1.28)
	Clutch disc thickness		1.8 – 2.0 (0.071 – 0.079)	Until grooves worn out
	Clutch plate thickness		1.95 – 2.05 (0.077 – 0.081)	Discoloration
	Clutch end plate thickness (1st)	MARK 1	2.05 – 2.10 (0.081 – 0.083)	Discoloration
		MARK 2	2.15 – 2.20 (0.085 – 0.087)	↕
		MARK 3	2.25 – 2.30 (0.089 – 0.091)	↕
		MARK 4	2.35 – 2.40 (0.093 – 0.094)	↕
		MARK 5	2.45 – 2.50 (0.096 – 0.098)	↕
		MARK 6	2.55 – 2.60 (0.100 – 0.102)	↕
		MARK 7	2.65 – 2.70 (0.104 – 0.106)	↕
		MARK 8	2.75 – 2.80 (0.108 – 0.110)	↕
		MARK 9	2.85 – 2.90 (0.112 – 0.114)	↕
		MARK 10	2.95 – 3.00 (0.116 – 0.118)	↕
		MARK 11	3.05 – 3.10 (0.120 – 0.122)	↕
		MARK 12	3.15 – 3.20 (0.124 – 0.126)	↕
		MARK 13	3.25 – 3.30 (0.128 – 0.130)	↕
		MARK 14	3.35 – 3.40 (0.132 – 0.134)	Discoloration
	Clutch end plate thickness (2nd, 3rd, 4th)	MARK 1	2.05 – 2.10 (0.081 – 0.083)	Discoloration
		MARK 2	2.15 – 2.20 (0.085 – 0.087)	↕
		MARK 3	2.25 – 2.30 (0.089 – 0.091)	↕
		MARK 4	2.35 – 2.40 (0.093 – 0.094)	↕
		MARK 5	2.45 – 2.50 (0.096 – 0.098)	↕
		MARK 6	2.55 – 2.60 (0.100 – 0.102)	↕
		MARK 7	2.65 – 2.70 (0.104 – 0.106)	↕
		MARK 8	2.75 – 2.80 (0.108 – 0.110)	↕
		MARK 9	2.85 – 2.90 (0.112 – 0.114)	↕
		MARK 10	2.95 – 3.00 (0.116 – 0.118)	Discoloration
	Clutch end plate thickness (1st-hold)	MARK 1	2.05 – 2.10 (0.081 – 0.083)	Discoloration
		MARK 2	2.15 – 2.20 (0.085 – 0.087)	↕
		MARK 3	2.25 – 2.30 (0.089 – 0.091)	↕
		MARK 4	2.35 – 2.40 (0.093 – 0.094)	↕
		NO MARK	2.45 – 2.50 (0.096 – 0.098)	↕
		MARK 6	2.55 – 2.60 (0.100 – 0.102)	↕
		MARK 7	2.65 – 2.70 (0.104 – 0.106)	Discoloration

Unit of length: mm (in)

— Automatic Transmission — Section 14

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission	Diameter of needle bearing contact area		
	On mainshaft and stator shaft	22.980 – 22.993 (0.9047 – 0.9052)	Wear or damage
	On mainshaft 2nd gear	35.975 – 35.991 (1.4163 – 1.4169)	↕
	On mainshaft 4th gear collar	31.975 – 31.991 (1.2589 – 1.2595)	↕
	On mainshaft 1st gear collar	30.975 – 30.991 (1.2195 – 1.2201)	↕
	On countershaft (left side)	36.004 – 36.017 (1.4175 – 1.4180)	↕
	On countershaft 3rd gear	35.980 – 35.996 (1.4165 – 1.4172)	↕
	On countershaft 4th gear	27.980 – 27.993 (1.1016 – 1.1021)	↕
	On countershaft reverse gear collar	31.975 – 31.991 (1.2589 – 1.2595)	↕
	On countershaft 1st gear collar	31.975 – 31.991 (1.2589 – 1.2595)	↕
	On sub-shaft (left side)	25.991 – 26.000 (1.0233 – 1.0236)	↕
	On sub-shaft 4th gear collar	27.980 – 27.993 (1.1016 – 1.1021)	↕
	On reverse idler gear shaft	13.990 – 14.000 (0.5508 – 0.5512)	Wear or damage
	Inside diameter of needle bearing contact area		
	On mainshaft 1st gear	35.000 – 35.016 (1.3780 – 1.3786)	Wear or damage
	On mainshaft 2nd gear	41.000 – 41.016 (1.6142 – 1.6148)	↕
	On mainshaft 4th gear	38.000 – 38.016 (1.4961 – 1.4967)	↕
	On countershaft 1st gear	38.000 – 38.016 (1.4961 – 1.4967)	↕
	On countershaft 3rd gear	41.000 – 41.016 (1.6142 – 1.6148)	↕
	On countershaft 4th gear	33.000 – 33.016 (1.2992 – 1.2998)	↕
	On countershaft reverse gear	38.000 – 38.016 (1.4961 – 1.4967)	↕
	On sub-shaft 4th gear	32.000 – 32.016 (1.2598 – 1.2605)	↕
	On reverse idler gear	18.007 – 18.020 (0.7089 – 0.7094)	↕
	On stator shaft (right side)	29.000 – 29.013 (1.1417 – 1.1422)	↕
	On stator shaft (stator side)	27.000 – 27.021 (1.0630 – 1.1638)	↕
	Reverse idler gear shaft holder I.D.	14.416 – 14.434 (0.5676 – 0.5683)	Wear or damage
	End play		
	Mainshaft 1st gear	0.08 – 0.24 (0.003 – 0.009)	———
	Mainshaft 2nd gear	0.05 – 0.13 (0.002 – 0.005)	———
	Mainshaft 4th gear	0.045 – 0.140 (0.002 – 0.006)	———
	Countershaft 1st gear	0.1 – 0.5 (0.004 – 0.020)	———
	Countershaft 3rd gear	0.04 – 0.15 (0.002 – 0.006)	———
	Countershaft 4th gear	0.05 – 0.13 (0.002 – 0.005)	———
	Sub-shaft 4th gear	0.05 – 0.17 (0.002 – 0.007)	———
	Reverse idler gear	0.05 – 0.18 (0.002 – 0.007)	———
	Countershaft reverse gear	0.10 – 0.25 (0.004 – 0.010)	———
	Selector hub O.D.	51.87 – 51.90 (2.042 – 2.043)	Wear or damage
	Mainshaft 4th gear collar length	49.00 – 49.05 (1.929 – 1.931)	———
	Mainshaft 1st gear collar length	27.00 – 27.15 (1.063 – 1.069)	———
	Mainshaft 1st gear collar flange thickness	2.5 – 2.6 (2.098 – 2.102)	Wear or damage
	Countershaft distance collar length	38.97 – 39.00 (1.534 – 1.535)	———
		39.02 – 39.05 (1.536 – 1.537)	———
		39.07 – 39.10 (1.538 – 1.539)	———
		39.12 – 39.15 (1.540 – 1.541)	———
		39.17 – 39.20 (1.542 – 1.543)	———
		39.22 – 39.25 (1.544 – 1.545)	———
		39.27 – 39.30 (1.546 – 1.547)	———
		38.87 – 38.90 (1.530 – 1.531)	———
		38.92 – 38.95 (1.532 – 1.533)	———
	Countershaft reverse gear collar length	14.5 – 14.6 (0.571 – 0.575)	———
	Countershaft reverse gear collar flange thickness	2.4 – 2.6 (0.094 – 0.102)	Wear or damage
	Countershaft 1st gear collar length	14.5 – 14.6 (0.571 – 0.575)	———
	Countershaft 1st gear collar flange thickness	2.4 – 2.6 (0.094 – 0.102)	Wear or damage
	Sub-shaft 4th gear collar length	24.0 – 24.1 (0.945 – 0.949)	Wear or damage
	Sub-shaft 4th gear collar flange thickness	3.00 – 3.15 (0.118 – 0.124)	Wear or damage

(cont'd)

Standards and Service Limits

Automatic Transmission (cont'd) — Section 14

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission (cont'd)	Mainshaft 2nd gear thrust washer thickness	3.97 – 4.00 (0.156 – 0.157) 4.02 – 4.05 (0.158 – 0.159) 4.07 – 4.10 (0.160 – 0.161) 4.12 – 4.15 (0.162 – 0.163) 4.17 – 4.20 (0.164 – 0.165) 4.22 – 4.25 (0.166 – 0.167) 4.27 – 4.30 (0.168 – 0.169) 4.32 – 4.35 (0.170 – 0.171) 4.37 – 4.40 (0.172 – 0.173)	Wear or damage ↕ Wear or damage
	Thrust washer thickness Mainshaft ball bearing left side Mainshaft 1st gear left side Mainshaft 1st gear right side	 3.45 – 3.55 (0.136 – 0.140) 1.45 – 1.50 (0.057 – 0.059) 3.43 – 3.50 (0.135 – 0.138)	 Wear or damage ↕ Wear or damage
	Sub-shaft 4th gear thrust washer thickness One-way clutch contact area I.D. Countershaft 1st gear Parking gear Mainshaft feed pipe A, O.D. (at 15 mm from end) Mainshaft feed pipe B, O.D. (at 30 mm from end) Countershaft feed pipe O.D. (at 15 mm from end) Sub-shaft feed pipe O.D. (at 15 mm from end) Mainshaft sealing ring thickness (29 mm and 35 mm) Mainshaft bushing I.D. Mainshaft bushing I.D. Countershaft bushing I.D. Sub-shaft bushing I.D. Mainshaft sealing ring goove width	2.93 – 3.00 (0.115 – 0.118) 83.339 – 83.365 (3.2810 – 3.2821) 66.685 – 66.698 (2.6254 – 2.6259) 8.97 – 8.98 (0.353 – 0.354) 5.97 – 5.98 (0.2350 – 0.2354) 7.97 – 7.98 (0.3138 – 0.3142) 7.97 – 7.98 (0.3138 – 0.3142) 1.980 – 1.995 (0.0780 – 0.0785) 6.018 – 6.030 (0.2369 – 0.2374) 9.000 – 9.015 (0.3543 – 0.3549) 8.000 – 8.015 (0.3150 – 0.3156) 8.000 – 8.015 (0.3150 – 0.3156) 2.025 – 2.060 (0.0797 – 0.0811)	Wear or damage ↕ Wear or damage 8.95 (0.352) 5.95 (0.234) 7.95 (0.313) 7.95 (0.313) 1.80 (0.071) 6.045 (0.2380) 9.03 (0.356) 8.03 (0.316) 8.03 (0.316) 2.08 (0.082)
Regulator valve body	Sealing ring contact area I.D.	35.000 – 35.025 (1.3780 – 1.3782)	35.050 (1.3799)
Shifting device and parking brake control	Reverse shift fork finger thickness Parking brake ratchet pawl Parking gear Throttle cam stopper height	5.90 – 6.00 (0.232 – 0.236) ——— ——— 27.0 – 27.1 (1.063 – 1.067)	5.40 (0.213) Wear or other defect ———
Servo body	Shift fork shaft bore I.D. Shift fork shaft valve bore I.D.	14.000 – 14.010 (0.5512 – 0.5516) 37.000 – 37.039 (1.4567 – 1.4582)	——— 37.045 (1:4585)
Oil pump	Oil pump gear side clearance Oil pump gear-to-body clearance Drive Driven Oil pump driven gear I.D. Oil pump shaft O.D.	0.03 – 0.05 (0.001 – 0.002) 0.210 – 0.265 (0.0083 – 0.0104) 0.070 – 0.125 (0.0028 – 0.0049) 14.016 – 14.034 (0.5518 – 0.5525) 13.980 – 13.990 (0.5504 – 0.5508)	0.07 (0.003) ——— ——— Wear or damage Wear or damage

Unit of length: mm (in)

Automatic Transmission — Section 14

	MEASUREMENT	STANDARD (NEW)			
		Wire Dia.	O.D.	Free Length	No. of Coils
Springs	Regulator valve spring A	1.8 (0.071)	14.7 (0.579)	88.6 (3.488)	16.5
	Regulator valve spring B	1.8 (0.071)	9.6 (0.378)	44.0 (1.732)	7.5
	Stator reaction spring	5.5 (0.217)	26.4 (1.039)	30.3 (1.193)	2.1
	Modulator valve body	1.3 (0.051)	9.4 (0.370)	37.3 (1.469)	12.4
	Torque converter check valve	1.1 (0.043)	8.4 (0.331)	33.8 (1.331)	12.5
	Cooler check valve spring	1.1 (0.043)	8.4 (0.331)	33.8 (1.331)	12.5
	Relief valve spring	1.1 (0.043)	8.6 (0.339)	37.1 (1.461)	13.4
	2-3 orifice control valve spring	0.9 (0.035)	6.6 (0.260)	33.0 (1.299)	14.9
	Throttle valve B adjusting spring	0.7 (0.028)	6.2 (0.244)	34.0 (1.339)	15.2
	Throttle valve B spring	1.4 (0.055)	8.5 (0.335)	41.5 (1.634)	10.5
	Throttle valve B spring	1.4 (0.055)	8.5 (0.335)	41.5 (1.634)	11.2
	Throttle valve B spring	1.4 (0.055)	8.5 (0.335)	41.6 (1.638)	12.4
	1-2 shift valve spring	0.9 (0.035)	8.6 (0.339)	40.4 (1.591)	14.5
	2-3 shift valve spring	0.9 (0.035)	7.6 (0.299)	57.0 (2.244)	26.8
	3-4 shift valve spring	0.9 (0.035)	7.6 (0.299)	52.0 (2.047)	26.8
	1st-hold accumulator spring	4.0 (0.157)	21.5 (0.846)	71.7 (2.823)	8.3
	1st accumulator spring	2.5 (0.098)	16.3 (0.642)	105.4 (4.150)	16 + 8.6
	2nd accumulator spring	3.6 (0.142)	22.0 (0.866)	108.9 (4.287)	15.2
	3rd accumulator spring	2.8 (0.110)	17.5 (0.689)	105.2 (4.142)	19.1
	4th accumulator spring	2.6 (0.102)	16.3 (0.642)	103.3 (4.067)	21.2
	Lock-up shift valve spring	0.9 (0.035)	7.6 (0.299)	73.7 (2.902)	32.0
	Lock-up timing B valve spring	0.8 (0.031)	6.6 (0.260)	60.8 (2.394)	22.1
	Lock-up control valve spring	0.8 (0.031)	6.6 (0.260)	39.5 (1.555)	25.0
	CPC valve spring	1.3 (0.051)	9.4 (0.370)	35.3 (1.390)	12.4
	Kick-down valve spring	1.0 (0.039)	6.6 (0.260)	28.5 (1.122)	14.7
	3-2 kick-down valve spring	1.3 (0.051)	8.6 (0.339)	45.6 (1.795)	17.0
	Servo control valve spring	0.9 (0.035)	6.4 (0.252)	34.1 (1.343)	17.5
	4th exhaust valve spring	1.0 (0.039)	7.1 (0.280)	60.3 (2.374)	18.5
	Servo orifice control valve spring	0.8 (0.031)	6.6 (0.260)	48.2 (1.898)	33.0

Standards and Service Limits

Differential (Manual transmission) — Section 15

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Differential carrier	Pinion shaft contact area I.D.	B18B1 engine	18.000 – 18.016 (0.7087 – 0.7093)	———
		B18C1 engine	18.000 – 18.018 (0.7087 – 0.7094)	———
	Carrier-to-pinion clearance	B18B1 engine	0.013 – 0.045 (0.0005 – 0.0018)	0.1 (0.004)
		B18C1 engine	0.013 – 0.047 (0.0005 – 0.0019)	0.1 (0.004)
	Driveshaft/intermediate shaft contact area I.D.			
		B18B1 engine	28.000 – 28.021 (1.1024 – 1.1032)	———
		B18C1 engine	28.005 – 28.025 (1.1026 – 1.1033)	———
	Carrier-to-driveshaft clearance	B18B1 engine	0.020 – 0.062 (0.0008 – 0.0024)	———
		B18C1 engine	0.045 – 0.086 (0.0018 – 0.0034)	———
	Carrier-to-intermediate shaft clearance			
		B18B1 engine	0.050 – 0.087 (0.0020 – 0.0034)	———
		B18C1 engine	0.075 – 0.111 (0.0030 – 0.0044)	———
Differential pinion gear	Backlash		0.05 – 0.15 (0.002 – 0.006)	Adjust
	I.D.		18.042 – 18.066 (0.7103 – 0.7113)	———
	Pinion gear-to-pinion shaft clearance		0.055 – 0.095 (0.0022 – 0.0037)	0.15 (0.006)
Set ring-to-bearing outer race clearance		B18B1 engine	0 – 0.10 (0 – 0.004)	Adjust
Differential taper roller bearing preload Starting torque N·m (kgf·cm, lbf·in)		B18C1 engine	2.11 – 3.04 (21.5 – 31.0, 13.0 – 18.7)	Adjust

Differential (Automatic transmission) — Section 15

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Differential carrier	Pinion shaft contact area I.D.	18.000 – 18.018 (0.7087 – 0.7094)	———
	Carrier-to-pinion clearance	0.016 – 0.052 (0.0006 – 0.0020)	0.1 (0.004)
	Driveshaft/intermediate shaft contact are I.D.	28.005 – 28.025 (1.1026 – 1.1033)	———
	Carrier-to-driveshaft clearance	0.025 – 0.066 (0.0010 – 0.0026)	0.12 (0.005)
Differential pinion gear	Backlash	0.05 – 0.15 (0.002 – 0.006)	Adjust
	I.D.	18.042 – 18.066 (0.7103 – 0.7113)	———
	Pinion gear-to-pinion shaft clearance	0.059 – 0.095 (0.0023 – 0.0037)	0.15 (0.006)
Set ring-to-bearing outer race clearance		0 – 0.15 (0 – 0.006)	Adjust

Steering — Section 17

	MEASUREMENT	STANDARD (NEW)
Steering wheel	Rotational play at steering wheel circumference	0 – 10 (0 – 0.39)
	Starting load at steering wheel circumference N (kgf, lbf) Engine running	34 (3.5, 7.7)
Gearbox	Angle of rack-guide-screw loosened from locked position	20° ± 5°
Pump	Pump pressure with shut-off valve closed kPa (kgf/cm², psi)	6,400 – 7,400 (65 – 75, 920 – 1,100)
Power steering fluid	Recommended fluid	Honda power steering fluid-V
	Fluid capacity For overhaul	1.06 (1.12, 0.98)
	ℓ (US qt, Imp qt) For fluid change	0.79 (0.83, 0.70)
Power steering belt*	Deflection with 98 N (10 kgf, 22 lbf) between pulleys	11.5 – 13.5 (0.45 – 0.53) with used belt 8.0 – 10.0 (0.31 – 0.39) with new belt
	Belt tension N (kgf, lbf) Measured with belt tension gauge	390 – 540 (40 – 55, 88 – 120) with used belt 740 – 880 (75 – 90, 170 – 200) with new belt

* When using a new belt, adjust deflection or tension to new values. Run the engine for 5 minutes then turn it off. Readjust deflection or tension to used belt values.

Unit of length: mm (in)

Suspension — Section 18

	MEASUREMENT		STANDARD (NEW)	
Wheel alignment	Camber	Front	−0° 10′ ± 1°	
		Rear	−0° 45′ $^{+0°45'}_{-1°15'}$	
	Caster	Front	1° 10′ ± 1°	
	Total toe	Front	0 ± 2 (0 ± 0.08)	
		Rear	IN 3 $^{+2}_{-1}$ (0.12 $^{+0.08}_{-0.04}$)	
	Front wheel turning angle	Inward wheel	36° 00′ ± 2°	
		Outward wheel	30° 30′	
Wheel bearing	End play	Front	0 – 0.05 (0 – 0.002)	
		Rear	0 – 0.05 (0 – 0.002)	
			STANDARD (NEW)	SERVICE LIMIT
Wheel	Rim runout (Aluminum wheel)	Axial	0 – 0.7 (0 – 0.03)	2.0 (0.08)
		Radial	0 – 0.7 (0 – 0.03)	1.5 (0.06)
	Rim runout (Steel wheel)	Axial	0 – 1.0 (0 – 0.04)	2.0 (0.08)
		Radial	0 – 1.0 (0 – 0.04)	1.5 (0.06)

Brake — Section 19

	MEASUREMENT		STANDARD (NEW)	
Parking brake lever	Play in stroke at 200 N (20 kgf, 44 lbf) lever force		To be locked when pulled 6 –10 notches	
Foot brake pedal	Pedal height (With floor mat removed)	M/T	160 (6.30)	
		A/T	165 (6.50)	
	Free play		1 – 5 (0.04 – 0.20)	
Master cylinder	Piston-to-pushrod clearance		0 – 0.4 (0 – 0.2)	
			STANDARD (NEW)	SERVICE LIMIT
Disc brake	Disc thickness	Front	20.9 – 21.1 (0.82 – 0.83)	19.0 (0.75)
		Rear	8.9 – 9.1 (0.35 – 0.36)	8.0 (0.31)
	Disc runout	Front	———	0.10 (0.004)
		Rear	———	0.10 (0.004)
	Disc parallelism	Front and rear	———	0.015 (0.0006)
	Pad thickness	Front	9.5 – 10.5 (0.37 – 0.41)	1.6 (0.06)
		Rear	7.0 – 8.0 (0.27 – 0.31)	1.6 (0.06)

Air Conditioning — Section 22

	MEASUREMENT		STANDARD (NEW)
Air conditioning system	Lubricant capacity mℓ (fl oz)	Condenser	25 (5/6)
		Evaporator	40 (1 1/3)
		Line or hose	10 (1/3)
		Receiver	10 (1/3)
	Lubricant type: ND-OIL8 (P/N 38899 – PR7 – A01)		
Compressor	Lubricant capacity mℓ (fl oz)		140 $^{+15}_{0}$ (4-2/3 $^{+1/2}_{0}$)
	Lubricant type: ND-OIL8 (P/N 38899 – PR7 – A01)		
	Stator coil resistance at 68°F (20°C) Ω		3.4 – 3.8
	Pulley-to-pressure plate clearance		0.5 ± 0.15 (0.02 ± 0.006)
Compressor belt*1	Deflection with 98 N (10 kgf, 22 lbf) between pulleys		7.5 – 9.5 (0.30 – 0.37) with used belt*2 8.5 – 10.5 (0.33 – 0.41) with used belt*3 5.0 – 7.0 (0.20 – 0.28) with new belt
	Belt tension N (kgf, lbf) Measured with belt tension gauge		390 – 540 (40 – 55, 88 – 120) with used belt*2 340 – 490 (35 – 50, 77 – 110) with used belt*3 740 – 880 (75 – 90, 170 – 200) with new belt

*1: When using a new belt, adjust deflection or tension to new values. Run the engine for 5 minutes then turn it off. Readjust deflection or tension to used belt values.
*2: B18B1 engine
*3: B18C1 engine