

# INTRODUCTION

Product: 1998-2001 Acura Integra Car Service Repair Workshop Manual

Full Download: <https://www.arepairmanual.com/downloads/1998-2001-acura-integra-car-service-repair-workshop-manual/>

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.

### NOTICE

The purpose of these messages is to help prevent damage to the vehicle, other property, or the environment.

**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, not could HONDA investigate all such ways. Anyone using service procedures or tools, whether or not recommended by HONDA, *must satisfy himself thoroughly* that neither personal safety nor vehicle safety will be jeopardized.

All information contained in this manual is based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice. No part of this publication may be reproduced, stored in retrieval system, or transmitted, in any form by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher. This includes test, figures, and tables.

First Edition 11/97 1416 pages

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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.

Sample of manual. Download All 1680 pages at:

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## \*General Info



## Special Tools



## Specifications

## Specs

## Maintenance



## Engine



## Cooling



## Fuel and Emissions



## \*Transaxle



## \*Steering



## Suspension



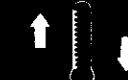
## \*Brakes (Including ABS)



## \*Body



## \*Heater and Air Conditioner



## \*Electrical (Including SRS)





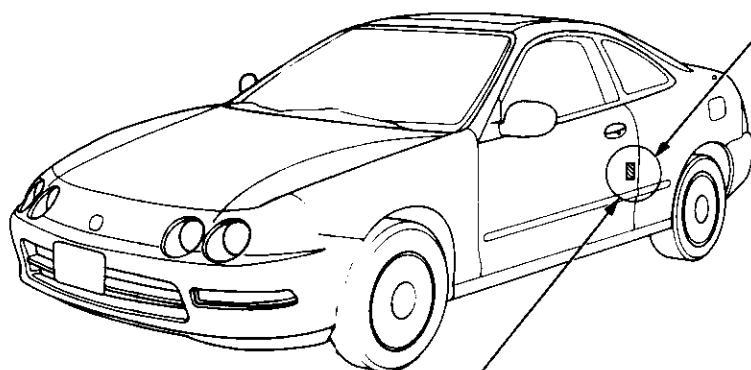
## General Information

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# Chassis and Paint Codes

## U.S. Model

<b>Vehicle Identification Number</b>	
JH4 DB7 55 * WS 000001	
<b>Manufacturer, Make and Type of Vehicle</b>	JH4: HONDA MOTOR CO., LTD. ACURA Passenger vehicle
<b>Line, Body and Engine Type</b>	DB7: INTEGRA 4-door/B18B1 DB8: INTEGRA 4-door/B18C1 DC2: INTEGRA 3-door/B18C1, B18C5 DC4: INTEGRA 3-door/B18B1
<b>Body Type and Transmission Type</b>	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
<b>Vehicle Grade (Series)</b>	1: Type R 4: RS 5: LS 6: GS 8: GS-R 9: GS-R with leather seats
<b>Check Digit</b>	
<b>Model Year</b>	W: 1998
<b>Factory Code</b>	S: Suzuka Factory in Japan
<b>Serial Number</b>	
<b>Engine Number</b>	
B18B1 - 5300001	
<b>Engine Type</b>	B18B1: 1.8 l DOHC Sequential Multiport Fuel-injected engine
B18C1, B18C5: 1.8 l DOHC VTEC Sequential Multiport Fuel-injected engine	
<b>Serial Number</b>	
<b>Transmission Number</b>	
S80 - 3000001	
<b>Transmission Type</b>	S80: Manual S4XA: Automatic
<b>Serial Number</b>	
<b>Paint Code</b>	
<b>COLOR</b> <b>G-82P</b>	



<b>Vehicle Identification Number and Federal Motor Vehicle Safety Standard Certification</b>	
<b>3-door</b>	<b>4-door</b>

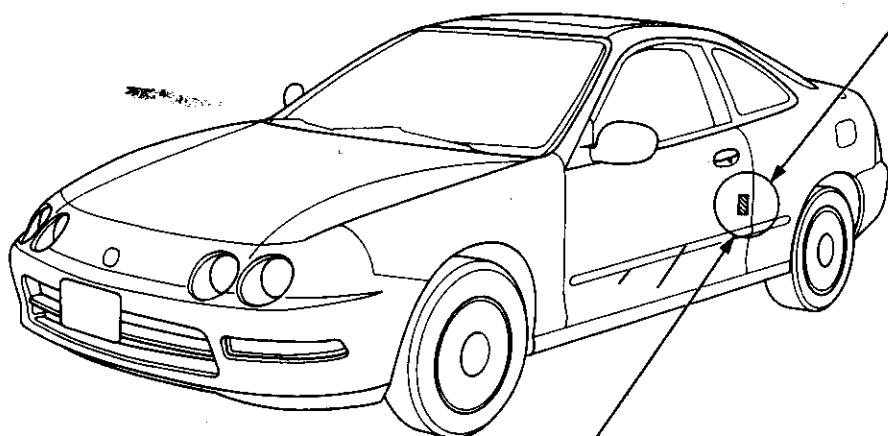
<b>Paint Code</b>	
B-74P	Adriatic Blue Pearl
B-90P* <sup>3</sup>	Supersonic Blue Pearl
G-82P	Cypress Green Pearl
NH-0* <sup>3</sup>	Championship White
NH-538	Frost White
NH-583M* <sup>3</sup>	New Vogue Silver Metallic
NH-592P* <sup>3</sup>	Flamenco Black Pearl
R-505P	Cayenne Red Pearl
R-81* <sup>3</sup>	Milano Red

\*3: 3-door



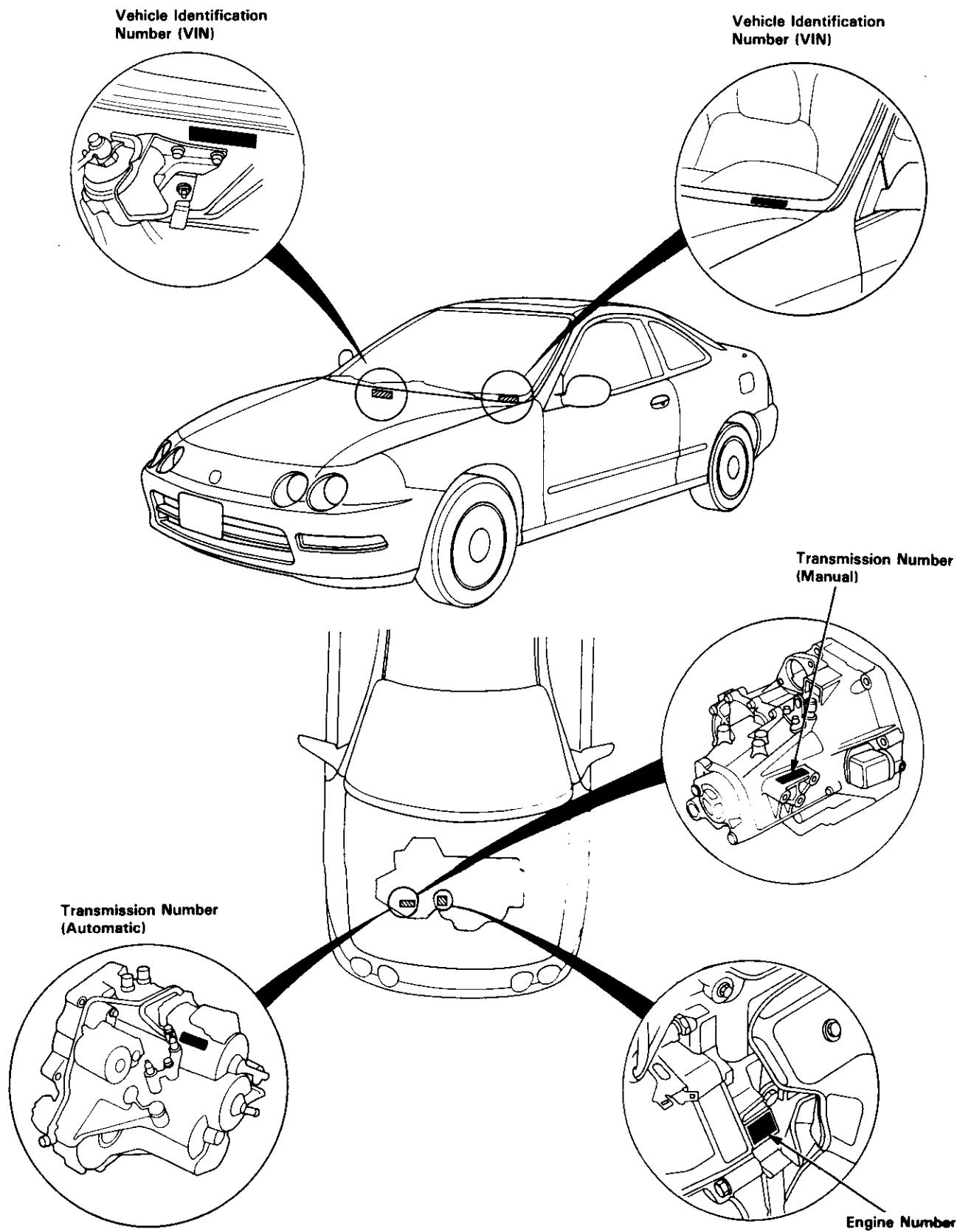
## Canada Model

<b>Vehicle Identification Number</b>	<b>Engine Number</b>
JH4 DC2 38 * WS 800001	
<b>Manufacturer, Make and Type of Vehicle</b>	<b>Engine Type</b>
JH4: HONDA MOTOR CO., LTD. ACURA Passenger car	B18B1: 1.8 l DOHC Sequential Multiport Fuel-injected engine
<b>Line, Body and Engine Type</b>	B18C1, B18C5: 1.8 l DOHC VTEC Sequential Multiport Fuel-injected engine
DC2: INTEGRA 3-door/B18C1, B18C5	
DC4: INTEGRA 3-door/B18B1	
<b>Body Type and Transmission Type</b>	<b>Serial Number</b>
3: 2-door Hatchback/5-speed Manual	
4: 2-door Hatchback/4-speed Automatic	
<b>Vehicle Grade (Series)</b>	<b>Transmission Number</b>
1: Type R	S80 - 3000001
4: RS	
5: LS	
6: LS with moonroof	<b>Transmission Type</b>
7: GS	S80: Manual
8: GS-R	S4XA: Automatic
<b>Check Digit</b>	<b>Serial Number</b>
<b>Model Year</b>	
W: 1998	
<b>Factory Code</b>	<b>Paint Code</b>
S: Suzuka Factory in Japan	<b>COLOR</b>
<b>Serial Number</b>	<b>NH-0</b>

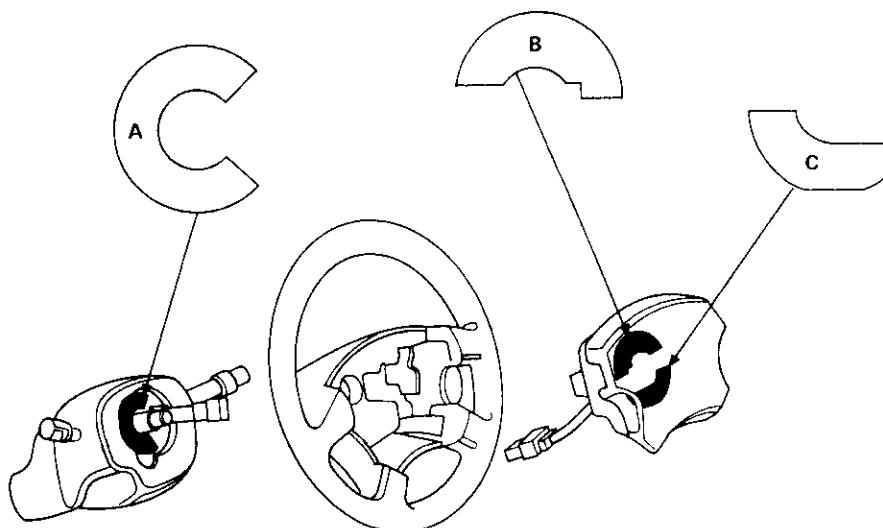


<b>Vehicle Identification Number and Canadian Motor Vehicle Safety Standard Certification</b>	<b>Paint Code</b>														
	<b>Paint Code</b>														
	<table border="1"> <thead> <tr> <th>Paint Code</th> <th>Color</th> </tr> </thead> <tbody> <tr> <td>B-90P</td> <td>Supersonic Blue Pearl</td> </tr> <tr> <td>G-82P</td> <td>Cypress Green Pearl</td> </tr> <tr> <td>NH-0</td> <td>Championship White</td> </tr> <tr> <td>NH-592P</td> <td>Starlight Black Pearl</td> </tr> <tr> <td>NH-597M</td> <td>Citrus Silver Metallic</td> </tr> <tr> <td>R-81</td> <td>Milano Red</td> </tr> </tbody> </table>	Paint Code	Color	B-90P	Supersonic Blue Pearl	G-82P	Cypress Green Pearl	NH-0	Championship White	NH-592P	Starlight Black Pearl	NH-597M	Citrus Silver Metallic	R-81	Milano Red
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R-81	Milano Red														

# Identification Number Locations



# Warning/Caution Label Locations



## A: CABLE REEL CAUTION

### SRS

INSTALLATION OF THE SRS CABLE REEL IS CRITICAL TO THE PROPER OPERATION OF THE SRS SYSTEM, REFER TO THE SERVICE MANUAL FOR DETAILED INSTALLATION INSTRUCTIONS.

## B: DRIVER MODULE DANGER

### DANGER

**EXPLOSIVE/FLAMMABLE**  
STORAGE TEMPERATURES MUST NOT EXCEED 200°F (93°C). FOR PROPER HANDLING, STORAGE, AND DISPOSAL PROCEDURES REFER TO SERVICE MANUAL, SRS SUPPLEMENT.

### FIRST AID

IF CONTENTS ARE SWALLOWED, INDUCE VOMITING. FOR EYE CONTACT, FLUSH EYES WITH WATER FOR 15 MINUTES. IN EVERY CASE, GET PROMPT MEDICAL ATTENTION.

KEEP OUT OF REACH OF CHILDREN.

## C: 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.

## D: SRS INFORMATION U.S. Model

### WARNING

DEATH OR SERIOUS INJURY CAN OCCUR.

- CHILDREN AGES 12 AND UNDER CAN BE KILLED BY THE AIRBAG.
- THE BACK SEAT IS THE SAFEST PLACE FOR CHILDREN.
- NEVER PUT A REAR-FACING CHILD SEAT IN THE FRONT.
- SIT AS FAR BACK AS POSSIBLE FROM THE AIRBAG.
- ALWAYS USE SEAT BELTS AND CHILD RESTRAINTS.

### Canada Model

### CAUTION

TO AVOID SERIOUS INJURY:

- FOR MAXIMUM SAFETY PROTECTION IN ALL TYPES OF CRASHES, YOU MUST ALWAYS WEAR YOUR SAFETY BELT.
- DO NOT INSTALL REARWARD FACING CHILD SEATS IN ANY FRONT PASSENGER SEAT POSITION.
- DO NOT SIT OR LEAN UNNECESSARILY CLOSE TO THE AIRBAG.
- DO NOT PLACE ANY OBJECTS OVER THE AIR BAG OR BETWEEN THE AIR BAG AND YOURSELF.
- SEE THE OWNER'S MANUAL FOR FURTHER INFORMATION AND EXPLANATIONS.

## E: ASSISTANT INFORMATION U.S. Model

### AIR BAG WARNING FLIP VISOR OVER

## F: STEERING COLUMN NOTICE

### NOTICE

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

## G: MONITOR NOTICE

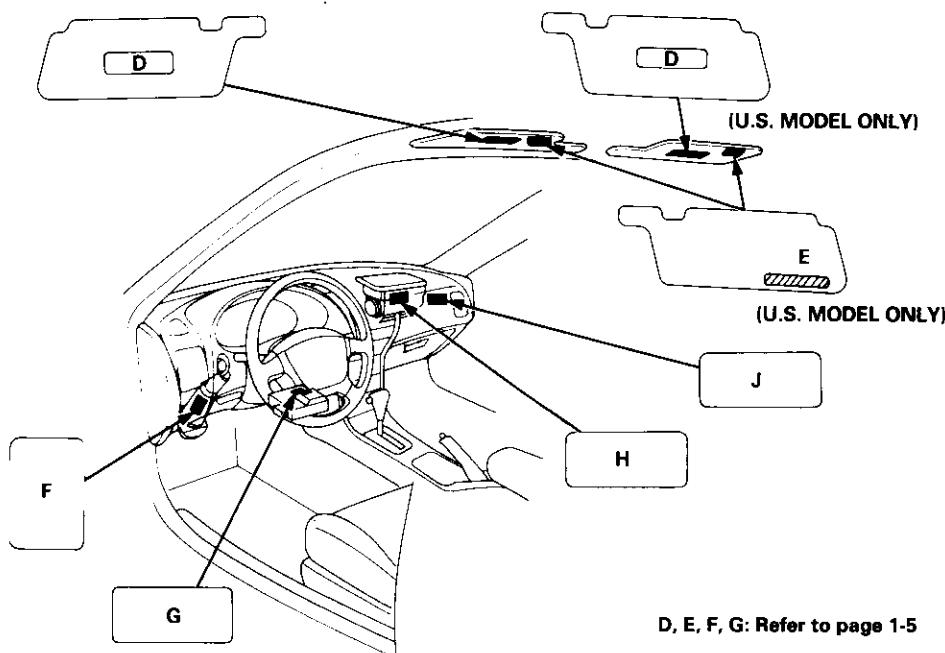
### NOTICE SRS

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

(cont'd)

# Warning/Caution Label Locations

(cont'd)



D, E, F, G: Refer to page 1-5

## H: FRONT SEAT PASSENGER MODULE DANGER

**DANGER**  
**EXPLOSIVE/FLAMMABLE**  
**STORAGE TEMPERATURES MUST NOT EXCEED 200°F (93°C). FOR PROPER HANDLING, STORAGE, AND DISPOSAL PROCEDURES, REFER TO SERVICE MANUAL, SRS SUPPLEMENT.**  
**FIRST AID**  
**IF CONTENTS ARE SWALLOWED, INDUCE VOMITING.**  
**FOR EYE CONTACT, FLUSH EYES WITH WATER FOR 15 MINUTES.**  
**IN EVERY CASE, GET PROMPT MEDICAL ATTENTION.**  
**KEEP OUT OF REACH OF CHILDREN.**

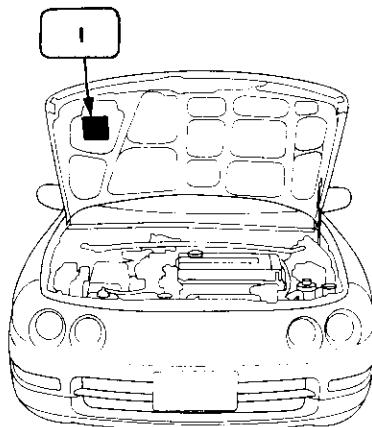
**WARNING**  
**THE AIRBAG INFLATOR IS EXPLOSIVE, AND IF ACCIDENTALLY DEPLOYED, CAN SERIOUSLY HURT OR KILL YOU.**  

- **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.**

## I: SRS WARNING (ENGINE HOOD)

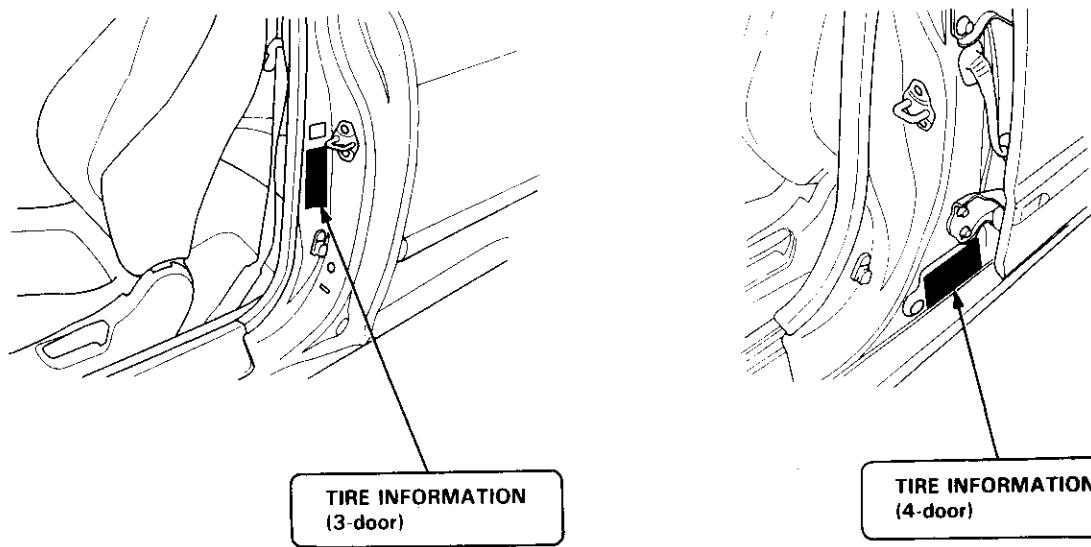
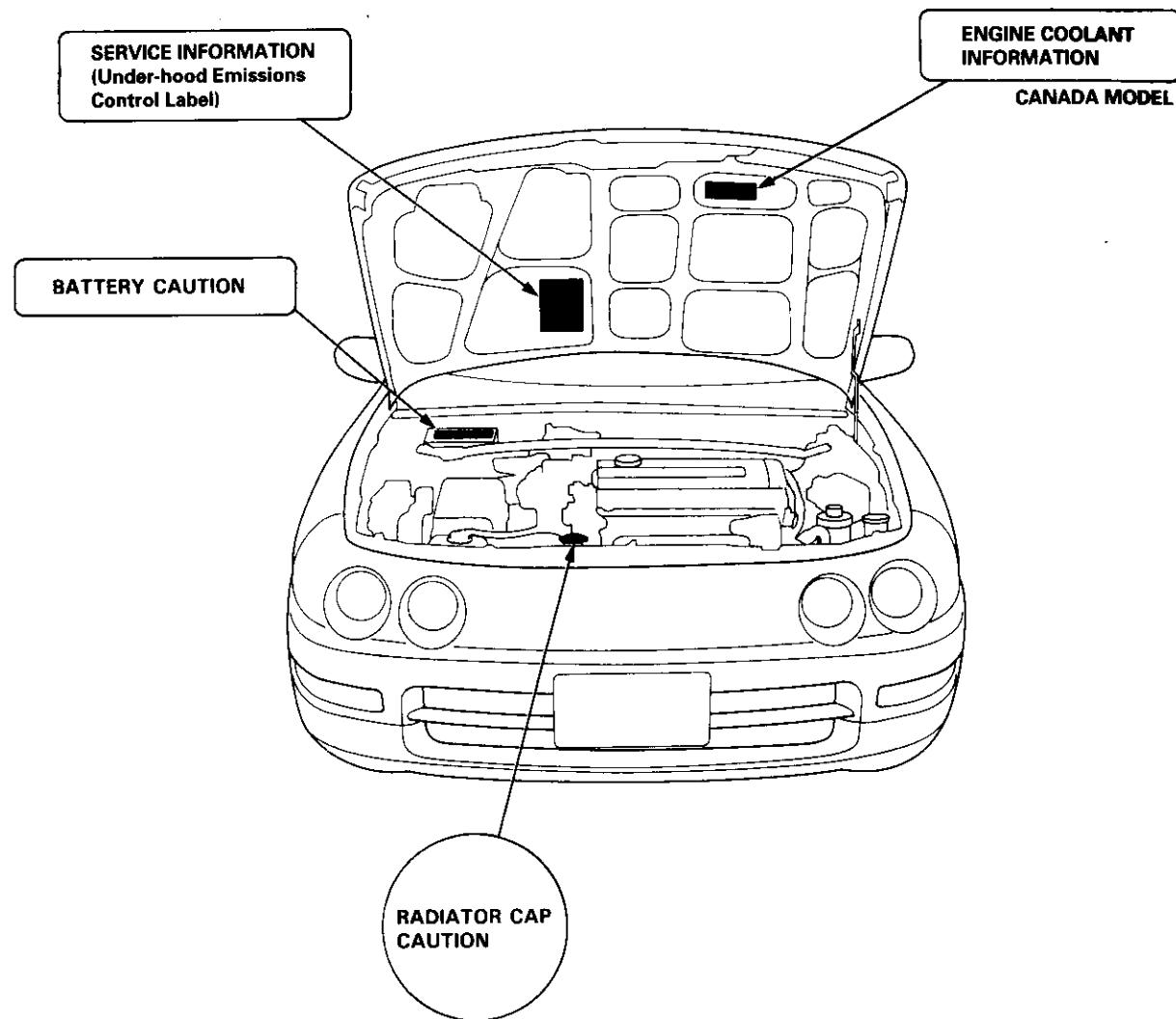
**SUPPLEMENTAL RESTRAINT SYSTEM (SRS)**  
**THIS VEHICLE IS EQUIPPED WITH DRIVER AND FRONT SEAT PASSENGER AIRBAGS.**  
**ALL SRS ELECTRICAL WIRING AND CONNECTORS ARE COLORED YELLOW.**  
**TAMPERING WITH, DISCONNECTING, OR USING ELECTRICAL TEST EQUIPMENT ON THE SRS WIRING CAN MAKE THE SYSTEM INOPERATIVE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



## J: PASSENGER AIRBAG CAUTION U.S. Model

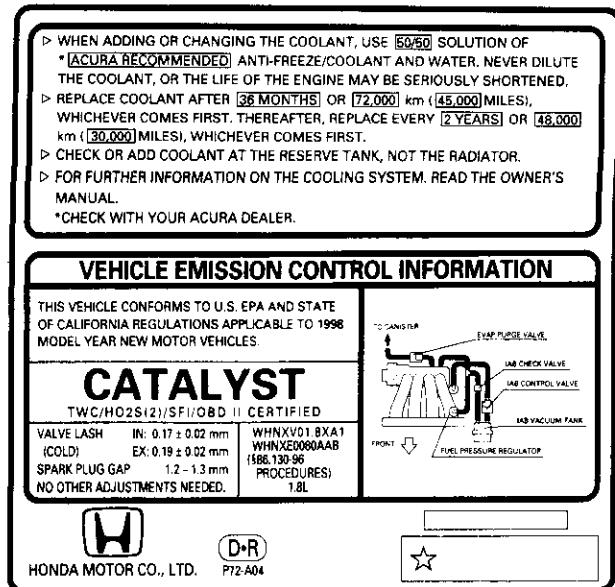
**WARNING**  
**CHILDREN CAN BE KILLED OR INJURED BY A PASSENGER AIRBAG.**  
**THE BACK SEAT IS THE SAFEST PLACE FOR CHILDREN. AGES 12 AND UNDER, MAKE SURE ALL CHILDREN USE SEAT BELTS OR CHILD SEATS.**



# Under-hood Emissions Control Label

## Emission Group Identification

### Example:



### 50ST (50 States):

THIS VEHICLE CONFORMS TO THE U.S. EPA AND THE STATE OF CALIFORNIA REGULATIONS APPLICABLE TO 1998 MODEL YEAR NEW MOTOR VEHICLES.

### 49ST (49 States/Federal):

THIS VEHICLE CONFORMS TO THE U.S. EPA REGULATIONS APPLICABLE TO 1998 MODEL YEAR NEW MOTOR VEHICLES.

### CAL (California):

THIS VEHICLE CONFORMS TO THE U.S. EPA AND STATE OF CALIFORNIA REGULATIONS APPLICABLE TO 1998 MODEL YEAR NEW PASSENGER CARS PROVIDED THAT THIS VEHICLE IS ONLY INTRODUCED INTO COMMERCE FOR SALE IN THE STATE OF CALIFORNIA.

## Engine and Evaporative Families

### Engine Family:

WHNX V 01.8 XA1

### Model Year

W: 1998

### Manufacturer

HNX: Honda

### Type

V: Light Duty Vehicle/Passenger Car

### Displacement

### Sequence Characters

### Evaporative Family:

WHNX E 0080 AAB

### Model Year

W: 1998

### Manufacturer

HNX: Honda

### Type

E: EVAP

### Canister Work Capacity (grams)

### Sequence Characters

# Lift and Support Points

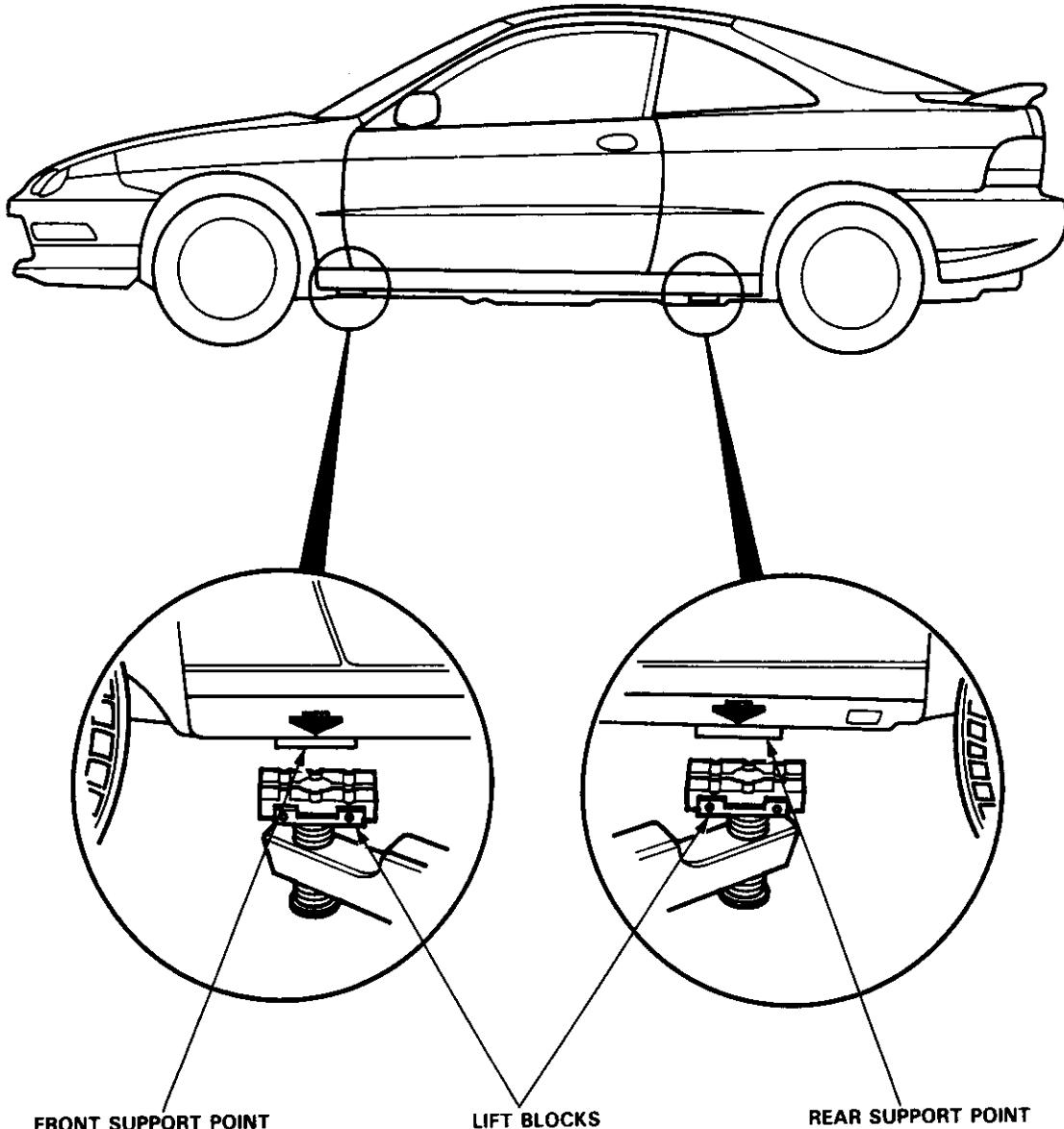
## Lift and Safety Stands

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

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

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

NOTE: Use the same support points to support the vehicle on safety stands.



# Lift and Support Points

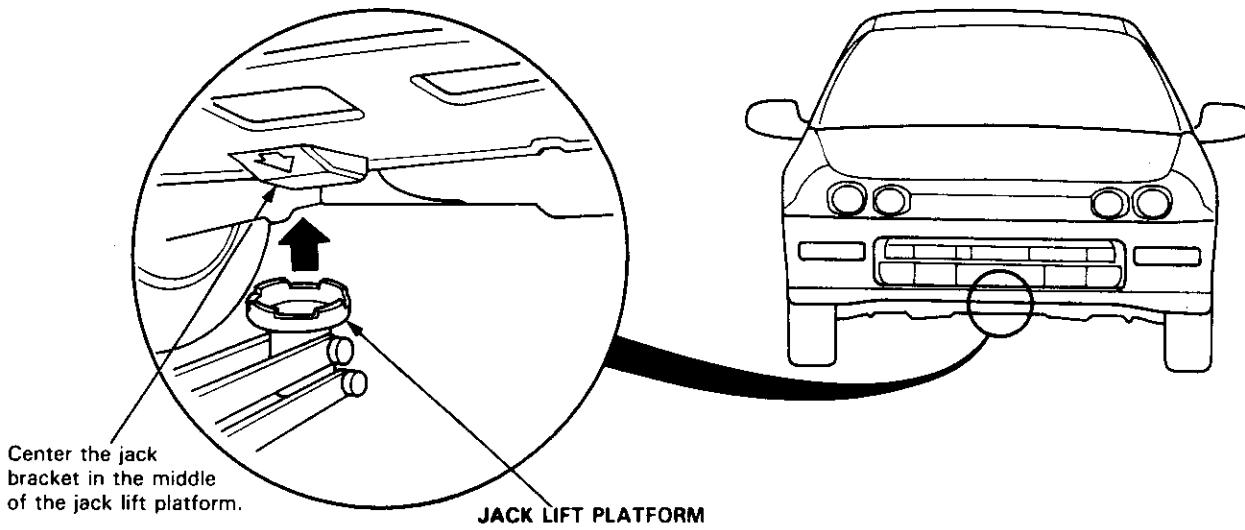
## Floor Jack

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

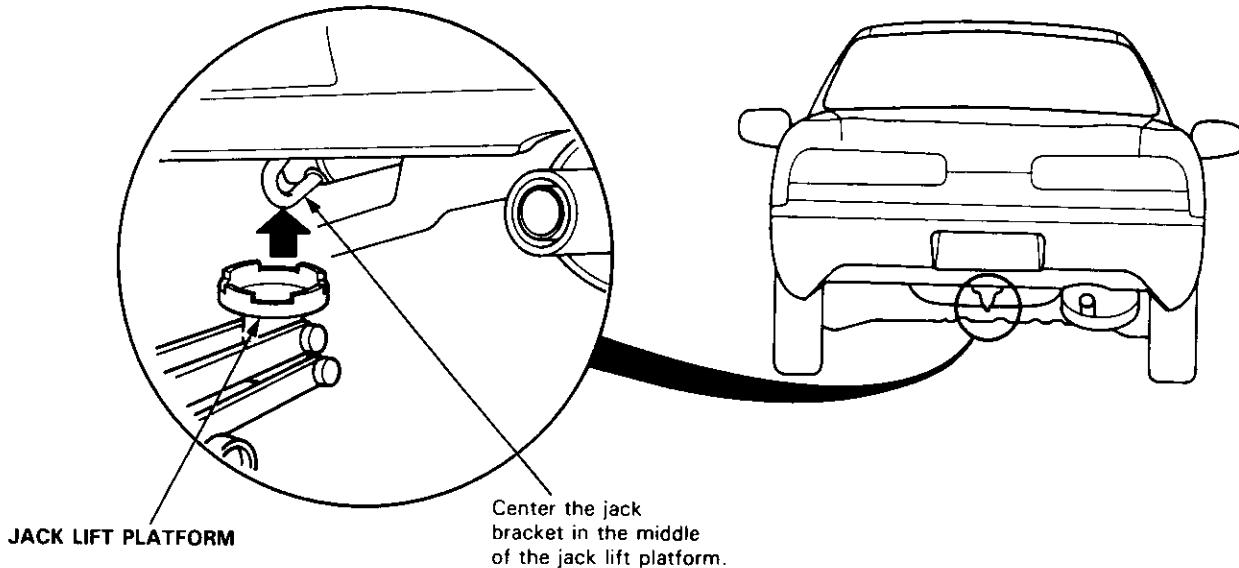
### WARNING

- 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 vehicle.

Front



Rear



# Towing

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

## Emergency Towing

There are three popular methods of towing a vehicle:

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

**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 vehicle off the ground. The vehicle's suspension and body can be seriously damaged if this method of towing is attempted.

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

### Manual Transmission

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

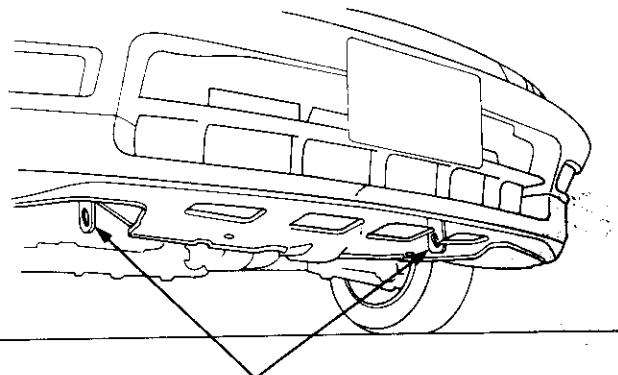
### Automatic Transmission

- Release the parking brake.
- Start the engine.
- Shift to **D** position, then to **N** position.
- Turn off the engine.

### CAUTION:

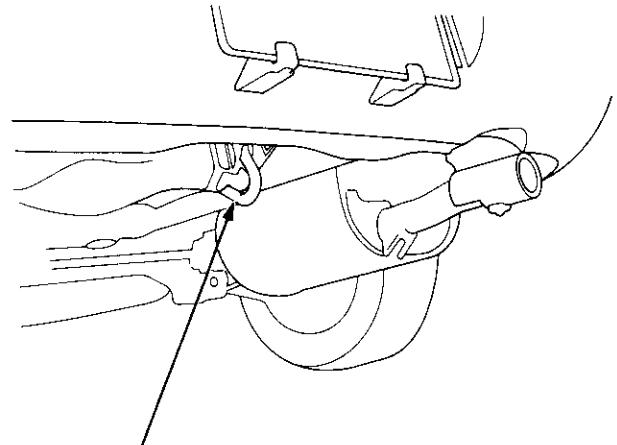
- Improper towing preparation will damage the transmission. Follow the above procedure exactly. If you cannot shift the transmission or start the engine (automatic transmission), your vehicle must be transported on a flat-bed.
- It is best to tow the vehicle no farther than 50 miles (80 km), and keep the speed below 35 mph (55 km/h).
- Trying to lift or tow your vehicle by the bumpers will cause serious damage. The bumpers are not designed to support the vehicle's weight.

## Front:



TOWING HOOKS

## Rear:



TOWING HOOK

# Service Precautions

## Parts Marking Locations

To deter vehicle theft, certain major components are marked with the vehicle identification number (VIN). Original parts will have self-adhesive labels or labels attached with a break-off bolt. Replacement body parts will have self-adhesive labels, and replacement engine and transmission parts will be stamped with a code for spare parts.

### NOTE

- Be careful not to damage the parts marking labels during body repairs, and mask the labels before repainting.
- Label location letters without parenthesis indicate original parts. Letters with parenthesis indicate replacement parts.

### Label Locations

A or (A): Engine

B or (B): Transmission

C or (C): Front Bumper

D or (D): Hood

E or (E): Trunk Lid (4 Door)

F or (F): Tail Gate (3 Door)

G or (G): Rear Bumper

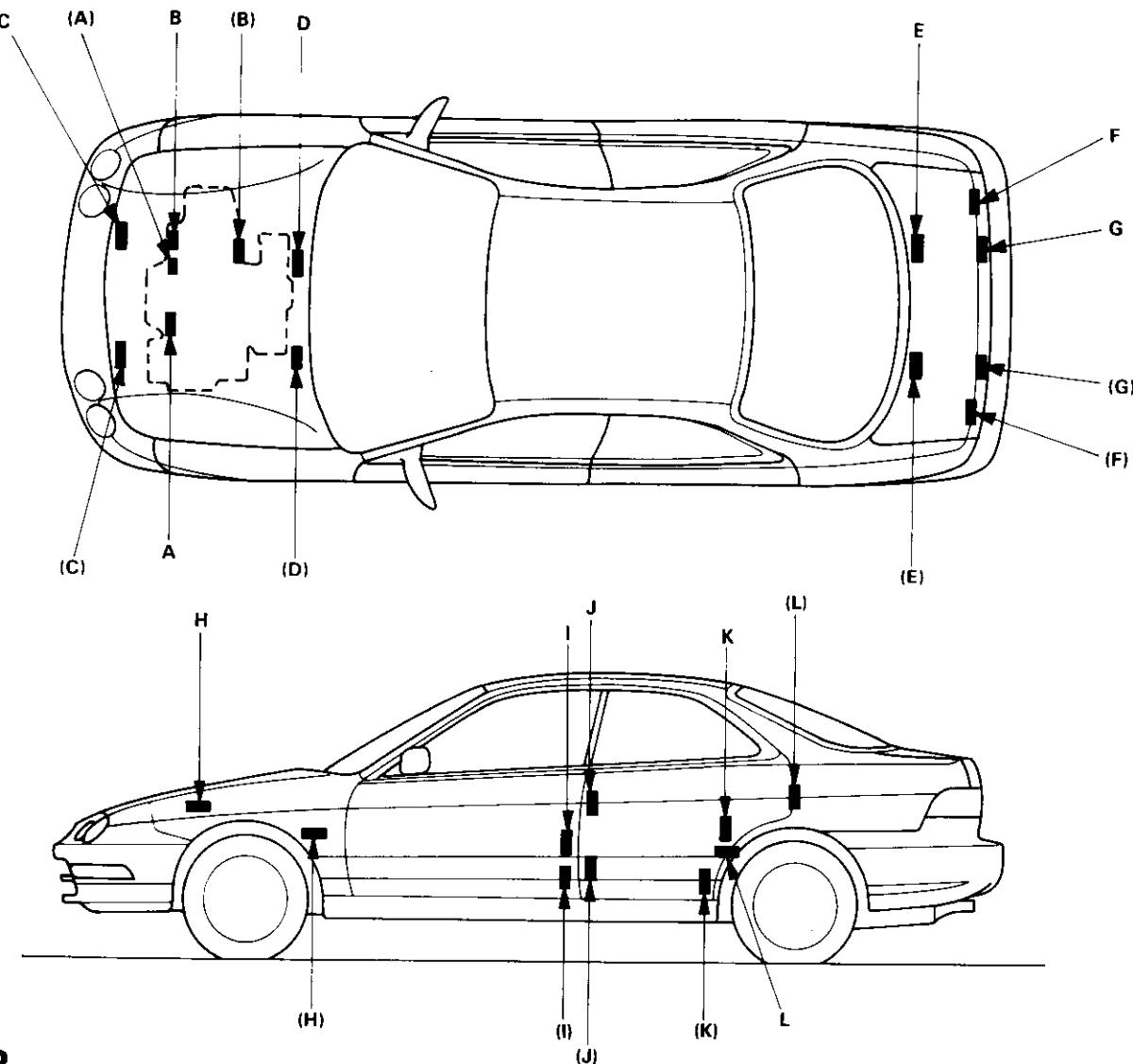
H or (H): Front Fender

I or (I): Front Door

J or (J): Outer Rear Panel (3 Door)

K or (K): Rear Door (4 Door)

L or (L): Outer Rear Panel (4 Door)



## Specifications

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<b>Design Specifications .....</b>	<b>3-15</b>
<b>Body Specifications .....</b>	<b>3-18</b>

# 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/cm <sup>2</sup> , psi)	Nominal Minimum Maximum variation	1,370 (14.0, 199) 930 (9.5, 135) 200 (2.0, 28)	
Cylinder head	Warpage Height		131.95 – 132.05 (5.195 – 5.199)	0.05 (0.002) _____
Camshaft	End play Camshaft-to-holder oil clearance Total runout Cam lobe height		0.05 – 0.15 (0.002 – 0.006) 0.030 – 0.069 (0.0012 – 0.0027) 0.03 (0.001) max. IN 33.716 (1.3274) EX 33.528 (1.3200)	0.5 (0.02) 0.15 (0.006) 0.04 (0.002) _____
Valve	Valve clearance (Cold)* Valve stem O.D. Stem-to-guide clearance	IN EX	0.08 – 0.12 (0.003 – 0.005) 6.580 – 6.590 (0.2591 – 0.2594) 6.550 – 6.560 (0.2579 – 0.2583) 0.02 – 0.05 (0.001 – 0.002) 0.05 – 0.08 (0.002 – 0.003)	_____ 6.55 (0.258) 6.52 (0.257) 0.08 (0.003) 0.11 (0.004)
Valve seat	Width Stem installed height	IN EX	1.25 – 1.55 (0.049 – 0.061) 1.25 – 1.55 (0.049 – 0.061) IN 40.765 – 41.235 (1.6049 – 1.6234) EX 42.765 – 43.235 (1.6837 – 1.7022)	2.0 (0.08) 2.0 (0.08) 41.485 (1.6333) 43.485 (1.7120)
Valve spring	Free length (Reference)	IN EX	NH CH 41.27 (1.625) 41.28 (1.625) 44.32 (1.745)	_____
Valve guide	I.D. Installed height	IN EX	6.61 – 6.63 (0.260 – 0.261) 6.61 – 6.63 (0.260 – 0.261) IN 13.75 – 14.25 (0.541 – 0.561) EX 15.75 – 16.25 (0.620 – 0.640)	6.65 (0.262) 6.65 (0.262) _____

\*: Measured between the camshaft and rocker arm.

NH: NIHON HATSUJO manufactured valve spring

CH: CHUO HATSUJO manufactured valve spring

## Engine Block (B18B1 engine) — Section 7

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

R: RIKEN manufactured piston ring

T: TEIKOKU PISTON RING manufactured piston ring

# Standards and Service Limits

## Cylinder Head/Valve Train (B18C1, B18C5 engines) — Section 6

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Compression	250 rpm and wide open throttle kPa (kgf/cm <sup>2</sup> , psi)	Nominal Minimum Maximum variation	1,860 (19.0, 270) 930 (9.5, 135) 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 B18C1/B18C5 engine Mid B18C1/B18C5 engine Secondary B18C1/B18C5 engine Primary B18C1/B18C5 engine Mid B18C1/B18C5 engine Secondary B18C1/B18C5 engine	0.05 – 0.15 (0.002 – 0.006) 0.050 – 0.089 (0.0020 – 0.0035) 0.03 (0.001) max. 33.411 (1.3154)/33.088 (1.3027) 36.377 (1.4322)/36.865 (1.4138) 34.547 (1.3601)/34.732 (1.3674) 33.111 (1.3036)/32.785 (1.2907) 35.720 (1.4063)/36.333 (1.4304) 34.381 (1.3536)/34.691 (1.3658)	0.5 (0.02) 0.15 (0.006) 0.04 (0.002) _____ _____ _____ _____ _____ _____
Valve	Valve clearance (Cold)* Valve stem O.D. Stem-to-guide clearance	IN EX IN EX IN EX	0.15 – 0.19 (0.006 – 0.007) 0.17 – 0.21 (0.007 – 0.008) 5.475 – 5.485 (0.2156 – 0.2159) 5.450 – 5.460 (0.2146 – 0.2150) 0.025 – 0.055 (0.0010 – 0.0022) 0.050 – 0.080 (0.0020 – 0.0031)	_____ 5.445 (0.2144) 5.420 (0.2134) 0.08 (0.003) 0.11 (0.004)
Valve seat	Width Stem installed height	IN B18C1 engine B18C5 engine EX B18C1 engine B18C5 engine IN EX	1.25 – 1.55 (0.049 – 0.061) 0.85 – 1.15 (0.033 – 0.045) 1.25 – 1.55 (0.049 – 0.061) 0.85 – 1.15 (0.033 – 0.045) 37.465 – 37.935 (1.4750 – 1.4935) 37.165 – 37.635 (1.4632 – 1.4817)	2.0 (0.08) 2.0 (0.08) 2.0 (0.08) 2.0 (0.08) 38.185 (1.5033) 37.885 (1.4915)
Valve spring	Free length (Reference) B18C1 engine: IN Outer Inner NH CH EX NH CH B18C5 engine: IN Outer Inner EX Outer Inner	41.05 (1.616) 36.16 (1.424) 36.19 (1.425) 41.96 (1.652) 41.94 (1.651) 43.19 (1.700) 36.84 (1.450) 41.05 (1.616) 36.16 (1.424)		_____ _____ _____ _____ _____ _____ _____ _____
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 manufactured valve spring

CH: CHUO HATSUJO manufactured valve spring

## Engine Block (B18C1, B18C5 engines) — Section 7

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface Bore diameter Bore taper Reboring limit	0.05 (0.002) max. 81.00 – 81.02 (3.189 – 3.190) — —	0.08 (0.003) 81.07 (3.192) 0.05 (0.002) 0.25 (0.010)
Piston	Skirt O.D. at 15 mm (0.6 in) from bottom of skirt Clearance in cylinder Groove width (For ring)	80.98 – 80.99 (3.188 – 3.189) 0.01 – 0.04 (0.0004 – 0.0016) Top Second Oil	80.97 (3.188) 0.05 (0.002) 1.060 (0.0417) 1.260 (0.0496) 2.840 (0.1118)
Piston ring	Ring-to-piston groove clearance Ring end gap	Top Second Oil	0.13 (0.005) 0.13 (0.005) 0.60 (0.024) 0.70 (0.028) 0.70 (0.028)
Piston Pin	O.D. Pin-to-piston clearance	20.994 – 21.000 (0.8265 – 0.8268) 0.010 – 0.022 (0.0004 – 0.0009)	— —
Connecting rod	Pin-to-rod interference Small end bore diameter Large end bore diameter End play installed on crankshaft	Nominal 0.017 – 0.036 (0.0007 – 0.0014) 20.964 – 20.997 (0.8254 – 0.8267) 48.0 (1.89) 0.15 – 0.30 (0.006 – 0.012)	— — — 0.40 (0.016)
Crankshaft	Main journal diameter No. 1, 2, 4 and 5 journals No. 3 journal Rod journal diameter Taper Out-of-round End play Runout	54.976 – 55.000 (2.1644 – 2.1654) 54.974 – 54.998 (2.1643 – 2.1653) 44.976 – 45.000 (1.7707 – 1.7717) 0.005 (0.0002) max. 0.005 (0.0002) max. 0.10 – 0.35 (0.004 – 0.014) 0.03 (0.001) max.	— — — 0.010 (0.0004) 0.010 (0.0004) 0.45 (0.018) 0.05 (0.002)
Bearing	Main bearing-to-journal oil clearance No. 1, 2, 4 and 5 journals No. 3 journal Rod bearing-to-journal oil clearance	0.024 – 0.042 (0.0009 – 0.0017) 0.030 – 0.048 (0.0012 – 0.0019) 0.032 – 0.050 (0.0013 – 0.0020)	0.050 (0.0020) 0.060 (0.0024) 0.060 (0.0024)

## Engine Lubrication — Section 8

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Engine oil	Capacity l (US qt, Imp qt)	B18B1 engine 3.8 (4.0, 3.3) for oil change, including filter 3.5 (3.7, 3.1) for oil change, without filter B18C1, B18C5 engines 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	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 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 Pump housing-to-outer rotor clearance Pump housing-to-rotor axial clearance	0.04 – 0.16 (0.002 – 0.006) 0.10 – 0.19 (0.004 – 0.007) 0.02 – 0.07 (0.001 – 0.003)	0.20 (0.008) 0.20 (0.008) 0.15 (0.006)
Relief valve	Pressure setting at engine oil temp. 176°F (80°C) kPa (kgf/cm <sup>2</sup> , psi)	At idle 70 (0.7, 10) min. At 3,000 rpm 340 (3.5, 50) min.	

# Standards and Service Limits

## Cooling — Section 10

	MEASUREMENT		STANDARD (NEW)
Radiator	Coolant capacity $\ell$ (US qt, Imp qt) [ Including engine, heater, cooling line and reservoir ] Reservoir capacity: 0.6 $\ell$ (0.63 US qt, 0.53 Imp qt)	B18B1 engine B18C1 engine B18C5 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* M/T: 6.7 (7.1, 5.9) for overhaul 4.7 (5.0, 4.1) for coolant change* M/T: 6.5 (6.9, 5.7) for overhaul 4.5 (4.8, 4.0) for coolant change*
Radiator cap	Opening pressure kPa (kgf/cm <sup>2</sup> , psi)		93 – 123 (0.95 – 1.25, 13.5 – 17.8)
Thermostat	Start to open $^{\circ}$ F ( $^{\circ}$ C) Fully open $^{\circ}$ F ( $^{\circ}$ C) Valve lift at fully open		169 – 176 (76 – 80) 194 (90) 8.0 (0.31) min.
Cooling fan	Thermoswitch "ON" temperature $^{\circ}$ F ( $^{\circ}$ C) Thermoswitch "OFF" temperature $^{\circ}$ F ( $^{\circ}$ C)		196 – 203 (91 – 95) Subtract 5 – 14 (3 – 8) from actual "ON" temperature

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

## Fuel and Emissions — Section 11

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Pressure regulator	Pressure with regulator vacuum hose disconnected kPa (kgf/cm <sup>2</sup> , psi)	B18B1 engine B18C1 engine B18C5 engine	270 – 320 (2.8 – 3.3, 40 – 47) 329 – 378 (3.35 – 3.85, 48 – 55) 320 – 370 (3.3 – 3.8, 47 – 54)
Fuel tank	Capacity $\ell$ (US gal, Imp gal)		50 (13.2, 11.0)
Engine	Idle speed with headlight and cooling fan off rpm	B18B1, B18C1 engines 750 $\pm$ 50 (M/T: neutral) 750 $\pm$ 50 (A/T: <b>N</b> or <b>P</b> position) B18C5 engine 800 $\pm$ 50 (M/T: neutral)	
	Fast idle rpm	B18B1, B18C1 engines 1,600 $\pm$ 200 (M/T: neutral) 1,600 $\pm$ 200 (A/T: <b>N</b> or <b>P</b> position) B18C5 engine 1,500 $\pm$ 200 (M/T: neutral)	
	Idle CO %	0.1 max.	

## Clutch — Section 12

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Clutch pedal	Pedal height Stroke Pedal play Disengagement height	to floor 164 (6 7/16) 130 – 140 (5.12 – 5.51) 12 – 21 (1/2 – 13/16)* 83 (3.27) min.	_____
Flywheel	Clutch surface runout	0.05 (0.002) max.	0.15 (0.006)
Clutch disc	Rivet head depth Thickness	1.2 – 1.7 (0.05 – 0.07) 8.3 – 9.0 (0.33 – 0.35)	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)

\* Including the pedal play 1 – 10 mm (0.04 – 0.39 in).

## Manual Transmission — Section 13

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission oil	Capacity $\ell$ (US qt, Imp qt)	2.2 (2.3, 1.9) for oil change 2.3 (2.4, 2.0) for overhaul	
Mainshaft	End play Diameter of ball bearing contact area (clutch housing side) Diameter of 3rd gear contact area Diameter of ball bearing contact area (transmission housing side) Runout	0.11 – 0.18 (0.004 – 0.007) 27.977 – 27.990 (1.101 – 1.102) 37.984 – 38.000 (1.495 – 1.496) 27.987 – 28.000 (1.1018 – 1.1024) 0.02 (0.0008) max.	Adjust 27.93 (1.10) 37.93 (1.493) 27.94 (1.10) 0.05 (0.002)
Mainshaft 3rd and 4th gears	I.D. End play Thickness	43.009 – 43.025 (1.6933 – 1.6939) 0.06 – 0.21 (0.0024 – 0.0083) 34.42 – 34.47 (1.355 – 1.357) 34.92 – 34.97 (1.375 – 1.377) 30.92 – 30.97 (1.217 – 1.219) 31.42 – 31.47 (1.237 – 1.239)	43.08 (1.696) 0.3 (0.012) 34.3 (1.350) 34.8 (1.370) 30.8 (1.213) 31.3 (1.232)
Mainshaft 5th gear	I.D. End play Thickness	43.009 – 43.025 (1.6933 – 1.6939) 0.06 – 0.21 (0.0024 – 0.0083) 31.42 – 31.47 (1.237 – 1.239)	43.08 (1.696) 0.3 (0.012) 31.3 (1.232)
Countershaft	Diameter of needle bearing contact area Diameter of ball bearing contact area Diameter of 1st gear contact area Runout	33.000 – 33.015 (1.299 – 1.300) 24.980 – 24.993 (0.9835 – 0.9840) 36.984 – 37.000 (1.4561 – 1.4567) 0.02 (0.0008) max.	32.95 (1.297) 24.94 (0.982) 36.93 (1.454) 0.05 (0.002)
Countershaft 1st gear	I.D. End play Thickness	42.009 – 42.025 (1.6539 – 1.6545) 0.045 – 0.205 (0.0018 – 0.0081) 31.45 – 31.50 (1.238 – 1.240)	42.08 (1.657) — —
Countershaft 2nd gear	I.D. End play Thickness	47.009 – 47.025 (1.8507 – 1.8514) 0.07 – 0.14 (0.003 – 0.006) 34.62 – 34.67 (1.3630 – 1.3650) 28.92 – 28.97 (1.1386 – 1.1405)	47.08 (1.854) 0.20 (0.008) 34.5 (1.358) 28.8 (1.134)
Spacer collar (Countershaft 2nd gear)	I.D. O.D. Length	36.48 – 36.49 (1.4362 – 1.4366) 41.989 – 42.000 (1.6531 – 1.6535) 29.07 – 29.09 (1.1445 – 1.1453)	36.5 (1.437) 41.94 (1.651) —
Spacer collar (Mainshaft 4th and 5th gears)	I.D. O.D. Length	31.002 – 31.012 (1.2205 – 1.2209) 37.989 – 38.000 (1.4956 – 1.4961) A 56.45 – 56.55 (2.2224 – 2.2264) B 26.03 – 26.08 (1.0248 – 1.0268)	31.06 (1.223) 37.94 (1.494) — —

(cont'd)

# Standards and Service Limits

## Manual Transmission (cont'd) — Section 13

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Reverse idler gear	I.D. Gear-to-reverse gear shaft clearance	B18B1 engine B18C1 engine B18C5 engine B18B1 engine B18C1 engine B18C5 engine 0.016 – 20.043 (0.7880 – 0.7891) 20.028 – 20.049 (0.7885 – 0.7893) 20.030 – 20.110 (0.7886 – 0.7917) 0.036 – 0.084 (0.0014 – 0.0033) 0.028 – 0.053 (0.0011 – 0.0020) 0.030 – 0.117 (0.0012 – 0.0046)	20.09 (0.7909) 20.09 (0.7909) 20.09 (0.7909) 0.16 (0.006) 0.16 (0.006) 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 *	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 (0.46 – 0.47) 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	8.1 – 8.2 (0.319 – 0.323) 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	11.8 – 12.0 (0.46 – 0.47) 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)

\*: B18C1, B18C5 engines

## Automatic Transmission — Section 14

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission fluid	Capacity $\ell$ (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/cm <sup>2</sup> , 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 (D <sub>2</sub> position)	420 – 480 (4.3 – 4.9, 61 – 70) throttle fully closed	400 (4.1, 58) throttle fully closed —— 780 (8.0, 110) throttle more than 1/4 opened
	3rd clutch pressure at 2,000 rpm (D <sub>3</sub> position)	830 – 880 (8.5 – 9.0, 120 – 130) throttle more than 1/4 opened	400 (4.1, 58) throttle fully closed —— 780 (8.0, 110) throttle more than 1/4 opened
	4th clutch pressure at 2,000 rpm (D <sub>4</sub> position)	830 – 880 (8.5 – 9.0, 120 – 130) throttle more than 1/4 opened	400 (4.1, 58) throttle fully closed —— 780 (8.0, 110) throttle more than 1/4 opened
	2nd clutch pressure at 2,000 rpm (R position)	830 – 880 (8.5 – 9.0, 120 – 130)	780 (8.0, 110)
	1st clutch pressure at 2,000 rpm (D <sub>4</sub> 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 (D <sub>4</sub> or D <sub>3</sub> position)	Throttle fully closed 0 – 15 (0 – 0.15, 0 – 2.1) Throttle fully opened 830 – 880 (8.5 – 9.0, 120 – 130)	—— 780 (8.0, 110)
Stall speed rpm (Check with vehicle on level ground)		B18B1 engine 2,500	2,350 – 2,650
		B18C1 engine 2,400	2,250 – 2,550

## Automatic Transmission — Section 14

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Clutch	Clutch initial clearance 1st, 2nd 3rd, 4th 1st-hold	0.65 – 0.85 (0.026 – 0.033) 0.40 – 0.60 (0.016 – 0.024) 0.5 – 0.8 (0.020 – 0.031)	— —
	Clutch return spring free length 1st, 2nd, 3rd, 4th 1st-hold	31.0 (1.22) 34.6 (1.36)	29.1 (1.15) 32.6 (1.28)
	Clutch disc thickness	1.88 – 2.00 (0.074 – 0.079)	Until grooves wear out
	Clutch plate thickness 1st, 1st-hold 2nd, 3rd, 4th	1.55 – 1.65 (0.061 – 0.065) 1.95 – 2.05 (0.077 – 0.081)	Discoloration
	Clutch end plate thickness (1st, 2nd, 3rd, 4th)	MARK 1 MARK 2 MARK 3 MARK 4 MARK 5 MARK 6 MARK 7 MARK 8 MARK 9 MARK 10	2.05 – 2.10 (0.081 – 0.083) 2.15 – 2.20 (0.085 – 0.087) 2.25 – 2.30 (0.089 – 0.091) 2.35 – 2.40 (0.093 – 0.094) 2.45 – 2.50 (0.096 – 0.098) 2.55 – 2.60 (0.100 – 0.102) 2.65 – 2.70 (0.104 – 0.106) 2.75 – 2.80 (0.108 – 0.110) 2.85 – 2.90 (0.112 – 0.114) 2.95 – 3.00 (0.116 – 0.118)
	Clutch end plate thickness (1st-hold)	MARK 1 MARK 2 MARK 3 MARK 4 NO MARK MARK 6 MARK 7	2.05 – 2.10 (0.081 – 0.083) 2.15 – 2.20 (0.085 – 0.087) 2.25 – 2.30 (0.089 – 0.091) 2.35 – 2.40 (0.093 – 0.094) 2.45 – 2.50 (0.096 – 0.098) 2.55 – 2.60 (0.100 – 0.102) 2.65 – 2.70 (0.104 – 0.106)

(cont'd)

# Standard and Service Limits

## Automatic Transmission (cont'd) — Section 14

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission	Diameter of needle bearing contact area On mainshaft stator shaft bearing On mainshaft 2nd gear On mainshaft 4th gear collar On mainshaft 1st gear collar On countershaft (left side) On countershaft 3rd gear collar On countershaft 4th gear On countershaft reverse gear collar On countershaft 1st gear collar On sub-shaft (left side) On sub-shaft 4th gear collar On reverse idler gear shaft	23.980 – 23.993 (0.9441 – 0.9446) 35.975 – 35.991 (1.4163 – 1.4170) 31.975 – 31.991 (1.2589 – 1.2595) 30.975 – 30.991 (1.2195 – 1.2201) 36.004 – 36.017 (1.4175 – 1.4180) 35.980 – 35.996 (1.4165 – 1.4172) 27.980 – 27.993 (1.1016 – 1.1021) 31.975 – 31.991 (1.2589 – 1.2595) 31.975 – 31.991 (1.2589 – 1.2595) 25.991 – 26.000 (1.0233 – 1.0236) 27.980 – 27.993 (1.1016 – 1.1021) 13.990 – 14.000 (0.5508 – 0.5512)	Wear or damage
	Inside diameter of needle bearing contact area On mainshaft 1st gear On mainshaft 2nd gear On mainshaft 4th gear On countershaft 1st gear On countershaft 3rd gear On countershaft 4th gear On countershaft reverse gear On sub-shaft 4th gear On reverse idler gear On stator shaft (ATF pump side) On stator shaft (stator side) Reverse idler gear shaft holder I.D.	35.000 – 35.016 (1.3780 – 1.3786) 41.000 – 41.016 (1.6142 – 1.6148) 38.000 – 38.016 (1.4961 – 1.4967) 38.000 – 38.016 (1.4961 – 1.4967) 41.000 – 41.016 (1.6142 – 1.6148) 33.000 – 33.016 (1.2992 – 1.2998) 38.000 – 38.016 (1.4961 – 1.4967) 32.000 – 32.016 (1.2598 – 1.2605) 18.007 – 18.020 (0.7089 – 0.7094) 29.000 – 29.013 (1.1417 – 1.1422) 27.000 – 27.021 (1.0630 – 1.0638) 14.416 – 14.434 (0.5676 – 0.5683)	Wear or damage
	End play Mainshaft 1st gear Mainshaft 2nd gear Mainshaft 4th gear Countershaft 1st gear Countershaft 3rd gear Countershaft 4th gear Sub-shaft 4th gear Reverse idler gear Countershaft reverse gear Selector hub O.D. Mainshaft 4th gear collar length Mainshaft 4th gear collar flange thickness Mainshaft 1st gear collar length	0.05 – 0.16 (0.002 – 0.006) 0.05 – 0.13 (0.002 – 0.005) 0.05 – 0.16 (0.002 – 0.006) 0.1 – 0.5 (0.004 – 0.020) 0.05 – 0.17 (0.002 – 0.007) 0.10 – 0.18 (0.004 – 0.007) 0.05 – 0.17 (0.002 – 0.007) 0.05 – 0.18 (0.002 – 0.007) 0.10 – 0.25 (0.004 – 0.010) 51.87 – 51.90 (2.042 – 2.043) 49.50 – 49.55 (1.949 – 1.951) 4.435 – 4.525 (0.175 – 0.178) 27.00 – 27.05 (1.063 – 1.065)	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)	Wear or damage
	Countershaft 3rd gear collar length Countershaft reverse gear collar length Countershaft reverse gear collar flange thickness Countershaft 1st gear collar length Countershaft 1st gear collar flange thickness Sub-shaft 4th gear collar length Sub-shaft 4th gear collar flange thickness	20.65 – 20.70 (0.813 – 0.815) 14.5 – 14.6 (0.571 – 0.575) 2.4 – 2.6 (0.094 – 0.102) 14.5 – 14.6 (0.571 – 0.575) 2.4 – 2.6 (0.094 – 0.102) 24.0 – 24.1 (0.945 – 0.949) 2.95 – 3.10 (0.116 – 0.122)	Wear or damage
			Wear or damage
			Wear or damage
			Wear or damage

## Automatic Transmission — 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) 4.42 – 4.45 (0.174 – 0.175)		Wear or damage ↑ ↓ Wear or damage
	Thrust washer thickness Mainshaft ball bearing left side Mainshaft 1st gear right side Countershaft 3rd gear splined washer thickness Sub-shaft 4th gear thrust washer thickness	2.95 – 3.05 (0.116 – 0.120) 2.43 – 2.50 (0.096 – 0.098) 4.95 – 5.00 (0.195 – 0.197) 2.93 – 3.00 (0.115 – 0.118)	Wear or damage ↑ ↓ Wear or damage	
	One-way clutch contact area Countershaft 1st gear I.D. Parking gear O.D. 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 groove width	83.339 – 83.365 (3.2811 – 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) 1.87 – 1.97 (0.0736 – 0.0775) 6.018 – 6.030 (0.2369 – 0.2374) 9.000 – 9.015 (0.3543 – 0.3549) 8.000 – 8.022 (0.3150 – 0.3158) 8.000 – 8.022 (0.3150 – 0.3158) 2.025 – 2.075 (0.0797 – 0.0817)	Wear or damage 8.95 (0.352) 5.95 (0.234) 7.95 (0.313) 7.95 (0.313) 1.82 (0.072) 6.045 (0.2380) 9.03 (0.356) 8.03 (0.316) 8.03 (0.316) 2.095 (0.082)	
Regulator valve body	Sealing ring contact area I.D.	35.000 – 35.025 (1.3780 – 1.3789)	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)	
ATF pump	ATF pump gear side clearance ATF pump gear-to-body clearance ATF pump driven gear I.D. ATF pump driven gear shaft O.D.	Drive Driven 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	

(cont'd)

# Standards and Service Limits

## Automatic Transmission (cont'd) — 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)	87.8 (3.457)	16.5
	Regulator valve spring B	1.8 (0.071)	*6.0 (0.236)	44.0 (1.732)	7.5
	Stator reaction spring	4.5 (0.177)	26.4 (1.039)	30.3 (1.193)	1.92
	Modulator valve spring	1.3 (0.051)	9.4 (0.370)	39.3 (1.547)	12.4
	Torque converter check valve	1.0 (0.039)	8.4 (0.331)	33.8 (1.331)	8.2
	Cooler check valve spring	1.0 (0.039)	8.4 (0.331)	33.8 (1.331)	8.2
	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)	41.6 (1.638)	27.6
	CPC valve spring	1.3 (0.051)	9.4 (0.370)	35.3 (1.390)	12.4
	4-3 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
	Orifice control valve spring	0.8 (0.031)	6.6 (0.260)	48.2 (1.898)	33.0

\*: Inside Diameter

## 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, B18C5 engines	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, B18C5 engines	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, B18C5 engines	28.005 – 28.025 (1.1026 – 1.1033)	_____
Differential	Carrier-to-driveshaft clearance B18B1 engine	0.020 – 0.062 (0.0008 – 0.0024)	_____
	B18C1, B18C5 engines	0.025 – 0.066 (0.0010 – 0.0026)	_____
	Carrier-to-intermediate shaft clearance B18B1 engine	0.050 – 0.087 (0.0020 – 0.0034)	_____
	B18C1, B18C5 engines	0.055 – 0.091 (0.0022 – 0.0036)	_____
pinion gear	Backlash I.D.	0.05 – 0.15 (0.002 – 0.006)	Adjust
	Pinion gear-to-pinion shaft clearance	18.042 – 18.066 (0.7103 – 0.7113) 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, B18C5 engines	2.11 – 3.04 (21.5 – 31.0, 18.7 – 26.9)	Adjust

## Differential (Automatic Transmission) — Section 15

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Differential carrier	Pinion shaft contact area I.D.	18.010 – 18.028 (0.7091 – 0.7098)	_____
	Carrier-to-pinion clearance	0.023 – 0.057 (0.0009 – 0.0022)	0.1 (0.004)
	Driveshaft/intermediate shaft contact are I.D.	26.025 – 26.045 (1.0246 – 1.0254)	_____
	Carrier-to-driveshaft clearance	0.045 – 0.086 (0.0018 – 0.0034)	0.12 (0.005)
Differential pinion gear	Backlash I.D.	0.05 – 0.15 (0.002 – 0.006)	_____
	Pinion gear-to-pinion shaft clearance	18.042 – 18.066 (0.7103 – 0.7113) 0.055 – 0.095 (0.0022 – 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 Starting load at steering wheel circumference N (kgf, lbf)			0 – 10 (0 – 0.39) 34 (3.5, 7.7)
Gearbox	Angle of rack-guide-screw loosened from locked position			20° MAX
Pump	Pump pressure with shut-off valve closed kPa (kgf/cm <sup>2</sup> , psi)			6,400 – 7,400 (65 – 75, 924 – 1,067)
Power steering fluid	Recommended fluid Fluid capacity ℓ (US qt, Imp qt)			Honda Power Steering Fluid-V or S 1.06 (1.12, 0.93) 1.0 (1.06, 0.88) 0.4 (0.42, 0.35)
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.

## Suspension — Section 18

MEASUREMENT				STANDARD (NEW)
Wheel alignment	Camber	Front Rear	Type R All except Type R	-0° 30' ± 1° -0° 10' ± 1° -0° 45' <sup>+0°45'</sup> <sub>-1°15'</sub>
	Caster	Front		1° 10' ± 1°
	Total toe	Front Rear		0 ± 2 (0 ± 1/16) IN 2 <sup>+2</sup> <sub>-1</sub> (1/16 ± 1/16)
	Front wheel turning angle		Inward wheel Outward wheel	36° 00' ± 2° 30° 30'
Wheel bearing	End play	Front Rear		0 – 0.05 (0 – 0.002) 0 – 0.05 (0 – 0.002)
Wheel	Rim runout (Aluminum wheel)			STANDARD (NEW)
		Axial Radial		0 – 0.7 (0 – 0.03) 1.5 (0.06)
Rim runout (Steel wheel)			Axial Radial	0 – 1.0 (0 – 0.04) 2.0 (0.08)
				0 – 1.0 (0 – 0.04) 1.5 (0.06)

## Brake — Section 19

MEASUREMENT				STANDARD (NEW)	
Parking brake lever	Play in stroke at 196 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 5/16) A/T 165 (6 1/2) 1 – 5 (1/16 – 3/16)	
Master cylinder	Piston-to-pushrod clearance			0 – 0.4 (0 – 0.02)	
Disc brake	Disc thickness	Front	Type R All except Type R	STANDARD (NEW)	
		Rear		22.9 – 23.1 (0.90 – 0.91) 20.9 – 21.1 (0.82 – 0.83) 8.9 – 9.1 (0.35 – 0.36)	
	Disc runout	Front		8.0 (0.31)	
		Rear		0.10 (0.004)	
	Disc parallelism	Front and rear		0.10 (0.004)	
		Front	Type R All except Type R	0.015 (0.0006)	
Pad thickness			Rear	10.5 – 11.5 (0.41 – 0.45) 9.5 – 10.5 (0.37 – 0.41) 8.5 – 9.5 (0.33 – 0.37)	
			All except Type R	1.6 (0.06) 1.6 (0.06) 1.6 (0.06)	
				7.0 – 8.0 (0.28 – 0.31)	

# Standards and Service Limits

## Air Conditioning — Section 22

MEASUREMENT				STANDARD (NEW)
Air conditioning system	Lubricant capacity ml (fl oz) Lubricant type: ND-OIL8 (P/N 38897 – PR7 – A01AH or 38899 – PR7 – A01)	Condenser Evaporator Line or hose Receiver/Dryer	25 (5/6) 40 (1 1/3) 10 (1/3) 10 (1/3)	
Compressor	Lubricant capacity ml (fl oz) Lubricant type: ND-OIL8 Stator coil resistance at 68°F (20°C) Ω Pulley-to-pressure plate clearance		140 $^{+15}_{-6}$ (4 2/3 $^{+1/2}_{-0}$ ) 3.4 – 3.8 0.5 $\pm$ 0.15 (0.02 $\pm$ 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 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 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.

## Electrical — Section 23

MEASUREMENT				STANDARD (NEW)	
Ignition coil	Rated voltage V Primary winding resistance at 68°F (20°C) Ω Secondary winding resistance at 68°F (20°C) kΩ		12 0.6 – 0.8 12.8 – 19.2		
Ignition wire				25 max. 1 – 3 – 4 – 2	
Spark plug	Type Gap	B18B1, B18C5 engines B18C1 engine	See Section 23 1.0 – 1.1 (0.039 – 0.043)		1.3 (0.051)*1
Ignition timing	At idling ° BTDC (Red) – rpm	M/T Except B18C5 engine B18C5 engine A/T	16 $\pm$ 2 – 750 $\pm$ 50 (Neutral) 16 $\pm$ 2 – 800 $\pm$ 50 (Neutral) 16 $\pm$ 2 – 750 $\pm$ 50 (N or P position)		
Alternator belt*2	Deflection with 98 N (10 kgf, 22 lbf) between pulleys	Except B18C5 engine B18C5 engine	9.0 – 11.0 (0.35 – 0.43) with used belt 6.0 – 8.0 (0.24 – 0.31) with new belt 7.0 – 9.0 (0.28 – 0.35) with new belt		
	Belt tension N (kgf, lbf) Measured with belt tension gauge	Except B18C5 engine B18C5 engine	340 – 490 (35 – 50, 77 – 110) with used belt 690 – 880 (70 – 90, 154 – 198) with new belt 540 – 740 (55 – 75, 121 – 165) with new belt		
Alternator (Except B18C5 engine)				STANDARD (NEW)	SERVICE LIMIT
	Output 13.5 V at normal operating temperature A Coil resistance (rotor) at 68°F (20°C) Ω Slip ring O.D. Brush length Brush spring tension N (kgf, lbf)		90 2.9 14.4 (0.57) 10.5 (0.41) 3.2 (0.33, 0.73)		14.0 (0.55) 1.5 (0.06)
Alternator (B18C5 engine)	Output 13.5 V at normal operating temperature A Coil resistance (rotor) at 68°F (20°C) Ω Slip ring O.D. Brush length Brush spring tension N (kgf, lbf)		85 2.6 – 2.9 22.7 (0.89) 19.0 (0.75) 3.3 – 4.1 (0.34 – 0.42, 0.75 – 0.93)		21.2 (0.83) 14.0 (0.55)
Starter	Output Mica depth Commutator runout Commutator O.D. Brush length Brush spring tension (new) N (kgf, lbf)	M/T A/T	M/T: 1.2 kW, A/T: 1.4 kW 0.5 – 0.8 (0.02 – 0.03) 0 – 0.02 (0 – 0.0008) 29.9 – 30.0 (1.177 – 1.181) 15.0 – 15.5 (0.59 – 0.61) 12.7 – 20.6 (1.3 – 2.1, 2.9 – 4.6) 17.7 – 23.5 (1.8 – 2.4, 4.0 – 5.3)		0.2 (0.008) 0.05 (0.002) 29.0 (1.142) 10.0 (0.39)

\*1: Do not adjust the gap, replace spark plug if it is out of spec.

\*2: 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.

## Design Specifications

	ITEM	METRIC	ENGLISH	NOTES
DIMENSIONS	Overall Length	3-door 4-door	4,380 mm 4,525 mm	172.4 in 178.1 in
	Overall Width		1,710 mm	67.3 in
	Overall Height	3-door 4-door	1,335 mm 1,370 mm	52.6 in 53.9 in
	Wheelbase	3-door 4-door	2,570 mm 2,620 mm	101.2 in 103.1 in
	Track F/R		1,475/1,470 mm 1,480/1,470 mm	58.1/57.9 in 58.3/57.9 in
	Ground Clearance		150 mm 140 mm	5.9 in 5.5 in
	Seating Capacity			Four (3-door), Five (4-door)
Weight (USA)	Gross Vehicle Weight Rating (GVWR)		3,680 lbs	
Weight (CANADA)	Gross Vehicle Weight Rating (GVWR)	1,670 kg		
ENGINE	Type	B18B1 engine B18C1, B18C5 engines	Water-cooled, 4-stroke DOHC gasoline engine Water-cooled, 4-stroke DOHC VTEC gasoline engine	
	Cylinder Arrangement		Inline 4-cylinder, transverse	
	Bore and Stroke	B18B1 engine B18C1, B18C5 engines	81.0 x 89.0 mm 81.0 x 87.2 mm	3.19 x 3.50 in 3.19 x 3.43 in
	Displacement	B18B1 engine B18C1, B18C5 engines	1,834 cm <sup>3</sup> (mL) 1,797 cm <sup>3</sup> (mL)	112 cu-in 110 cu-in
	Compression Ratio	B18B1 engine B18C1, B18C5 engines		9.2 10.0
	Valve Train	B18B1 engine B18C1, B18C5 engines	Belt driven, DOHC 4 valve per cylinder Belt driven, DOHC VTEC 4 valve per cylinder	
	Lubrication System		Forced and wet sump, trochoid pump	
	Oil Pump Displacement	B18B1 engine B18C1, B18C5 engines	50 l (53 US qt, 44 Imp qt)/minute <sup>*1</sup> 71 l (75 US qt, 62 Imp qt)/minute <sup>*2</sup>	
	Water Pump Displacement	B18B1 engine B18C1, B18C5 engines	140 l (148 US qt, 123 Imp qt)/minute <sup>*1</sup> 140 l (148 US qt, 123 Imp qt)/minute <sup>*2</sup>	
	Fuel Required	B18B1 engine B18C1, B18C5 engines	UNLEADED gasoline with 86 Pump Octane Number or higher Premium UNLEADED gasoline with 91 Pump Octane Number or higher	
STARTER	Type		Gear reduction	
	Normal Output		M/T: 1.2 kW, A/T: 1.4 kW	
	Nominal Voltage		12 V	
	Hour Rating		30 seconds	
	Direction of Rotation		Clockwise as viewed from gear end	
	Weight	M/T A/T	3.5 kg 3.7 kg	7.7 lbs 8.2 lbs
CLUTCH	Clutch Type	M/T A/T	Single plate dry, diaphragm spring	
	Clutch Facing Area	M/T	Torque converter 203 cm <sup>2</sup> 176 cm <sup>2</sup>	31 sq-in 27 sq-in
TRANSMISSION	Transmission Type	M/T A/T	Synchronized 5-speed forward, 1 reverse Electronically controlled 4-speed automatic, 1 reverse Direct 1 : 1	
	Primary Reduction			

\*1: At 6,000 engine rpm

\*2: At 7,600 engine rpm

(cont'd)

# Design Specifications

(cont'd)

ITEM		METRIC		ENGLISH	NOTES
TRANSMISSION	Type	Manual transmission			
	Engine type	B18B1	B18C1	B18C5	
	Gear Ratio	1st	3.230	3.230	3.230
		2nd	1.900	1.900	2.105
		3rd	1.269	1.360	1.458
		4th	0.966	1.034	1.107
		5th	0.714	0.787	0.848
		Reverse	3.000	3.000	3.000
	Final Reduction	Gear type	Single helical gear		
		Gear ratio	4.266	4.400	4.400
AIR CONDITIONING	Type	Automatic transmission			
	Gear Ratio	1st	2.722		
		2nd	1.468		
		3rd	0.975		
		4th	0.638		
		Reverse	1.954		
	Final Reduction	Gear type	Single helical gear		
		Gear ratio	4.357		
	Cooling Capacity	3,570 Kcal/h		14,200 BTU/h	
	Compressor	Type/Make	Swash-plate/DENSO		
STEERING SYSTEM		No. of Cylinders	10		
		Capacity	150 ml/rev	9.15 cu-in/rev	
		Max. Speed	7,600 rpm		
		Lubricant Capacity	140 ml	4-2/3 fl oz	
			4.73 Imp oz		
		Lubricant Type	ND-OIL8		
	Condenser	Type	Corrugated fin		
	Evaporator	Type	Corrugated fin		
	Blower	Type	Sirocco fan		
		Motor Input	200 W/12 V		
SUSPENSION		Speed Control	4-speed		
		Max. Capacity	450 m³/h	15,900 cu ft/h	
	Temperature Control	Air-mix type			
	Compressor Clutch	Type	Dry, single plate, poly-V-belt drive		
		Power Consumption	40 W max./12 V at 68°F (20°C)		
	Refrigerant	Type	HFC-134a (R-134a)		
		Quantity	700 $\frac{1}{2}$ g	24.7 $\frac{1}{2}$ oz	
	Type	Power assisted, rack and pinion			
	Overall Ratio	16.1			
	Turns, Lock-to-Lock	2.98			
	Steering Wheel Dia.	380 mm		15.0 in	
Front	Type	Independent double wishbone, coil spring with stabilizer			
		Independent double wishbone, coil spring with stabilizer			
		Telescopic, hydraulic nitrogen gas-filled			
Shock Absorber, Front and Rear					

	ITEM			METRIC	ENGLISH	NOTES
WHEEL ALIGNMENT	Camber	Front	B18C5 engine Except B18C5 engine		-0°30' -0°10' -0°45' 1°10'	
	Caster	Rear		0 mm	0 in	
	Total Toe	Front		In 2 mm	In 1/16 in	
BRAKE SYSTEM	Type	Front		Power-assisted self-adjusting ventilated disc		
	Pad Surface Area	Rear		Power-assisted self-adjusting solid disc 50.0 cm <sup>2</sup> x 2 21.0 cm <sup>2</sup> x 2		
		Front		7.75 sq in x 2 3.26 sq in x 2		
	Parking Brake	Rear		Mechanical actuating, rear two wheel brakes		
TIRE	Size	Front and rear		P195/60R14 85H*1 P195/55R15 84V*2		
		Spare Tire		T115/70D14*3 T125/70D14*4 T125/70D15*5		
ELECTRICAL	Battery			12 V - 36 AH/5 HR		
	Starter			12 V - 1.2/1.4 kW		
	Alternator			12 V - 90 A/85 A		
	Fuses			7.5 A, 10 A, 15 A, 20 A, 30 A		
	In Under-dash Fuse/Relay Box			7.5 A, 10 A, 15 A, 20 A, 30 A, 40 A		
	In Under-hood Fuse/Relay Box			50 A, 100 A		
				10 A, 15 A, 20 A, 40 A		
	Headlights	High		12 V - 60 W (HB3)		
		Low		12 V - 51 W (HB4)		
	Front Side Marker Lights			12 V - 3 CP		
	Front Turn Signal/Parking Lights			12 V - 32/3 CP		
	Rear Turn Signal Lights			12 V - 32 CP		
	Brake/Taillights			12 V - 32/3 CP		
	High Mount Brake Light*6			12 V - 21 W		
	Rear Side Marker Lights			12 V - 3 CP		
	Back-up Lights			12 V - 32 CP		
	License Plate Lights			12 V - 8 W		
	Ceiling Lights			12 V - 5 W		
	Cargo Area Lights (3-door)			12 V - 3.4 W		
	Trunk Lights (4-door)			12 V - 3.4 W		
	Spotlights			12 V - 5 W		
	Glove Box Light			12 V - 3.4 W		
	Gauge Lights			12 V - 3.4 W		
	Indicator Lights			12 V - 0.84 W, 0.91 W, 1.12 W, 1.4 W, 3 W		
	Illumination and Pilot Lights			12 V - 0.84 W, 0.91 W, 1.4 W, LED		
	Heater Illumination Lights			12 V - 1.4 W		

\*1: RS, LS

\*2: GS, GS-R, TYPE R

\*3: RS

\*4: LS, GS-R

\*5: TYPE R

\*6: Except high mount brake light installed in rear spoiler.