

# INTRODUCTION

## How to Use This Manual

This supplement contains information for HONDA ACCORD. Refer to following shop manuals for service procedures and data not included in this supplement.

Description	Code No.
HONDA ACCORD MAINTENANCE, REPAIR AND CONSTRUCTION 93	62SN700
HONDA ACCORD SUPPLEMENT 93	62SN720
HONDA ACCORD SUPPLEMENT 94	62SN721

The first page of each section is marked with a black tab that lines up with one of the thumb index tabs on this page. 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.

## 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 MOTOR might be done, or of the possible hazardous consequences of every conceivable way, nor could HONDA MOTOR investigate all such ways. Anyone using service procedures or tools, whether or not recommended by HONDA MOTOR, *must satisfy himself thoroughly* that neither personal safety nor vehicle safety will be jeopardized.

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 marked sections are not included in this manual.

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HONDA MOTOR CO., LTD.  
Service Publication Office

General Info



Special Tools



Specifications

specs

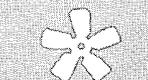
Maintenance



Engine



Cooling



Fuel and Emissions



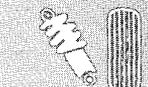
Transaxle



\*Steering



Suspension



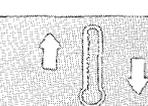
Brakes  
(Including )



\*Body



\*Heater and  
Air Conditioning



\*Electrical  
(Including )



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

# Outline of Model Changes

The following summarizes changes made on the 93 ACCORD Shop Manual (Code No. 62SN700), 93 ACCORD Shop Manual Supplement (Code No. 62SN720) and 94 ACCORD Shop Manual Supplement (Code No. 62SN721).

ITEM	DESCRIPTION	CODE NO.			REFERENCE SECTION
		62SN720	62SN721	62SN722	
General	2.3 l model added	○			—
	2.0 l KS model added	○			—
	1.8 l model added			○	1, 3
Engine	H23A3 engine type added F20Z1, F20Z2 engines valve clearance modified	○			—
	Rear mount bracket Changed		○		—
	Changed <ul style="list-style-type: none"> <li>• Torque value of radiator fan self locking nut</li> <li>• Connecting pipe (H23A3 engine)</li> <li>• Water pump</li> </ul>		○		—
	F18A3 engine added			○	6, 7
PGM-FI	Changed for 2.3 l model addition. <ul style="list-style-type: none"> <li>• Vacuum connections</li> <li>• Electrical connections</li> <li>• Heated oxygen sensor (HO2S)</li> <li>• TDC/CKP/CYP sensor</li> <li>• Starting air valve</li> <li>• Fast idle thermo valve</li> <li>• Throttle body</li> <li>• Intake air bypass (IAB) control system</li> <li>• Intake air control system</li> </ul>	○			—
	Main wire harness changed		○		—
	F18A3 engine added			○	11
Manual Transmission	Countershaft 2nd gear synchro system changed		○		—
	Changed <ul style="list-style-type: none"> <li>• Countershaft clearance inspection</li> <li>• Reverse idle gear shaft torque</li> </ul>			○	13
Automatic Transmission	Changed for 2.3 l model addition <ul style="list-style-type: none"> <li>• Road test shift schedule</li> <li>• Stall speed RPM</li> <li>• Pressure testing fluid pressure</li> <li>• 1st/2nd clutch assembly</li> </ul>	○			—
	Circuit diagram modified Changed <ul style="list-style-type: none"> <li>• Reverse idler gear shift and holder</li> <li>• Main valve body assembly</li> <li>• Secondary shaft assembly</li> <li>• Clutch discs and pistons</li> <li>• Throttle control cable inspection and adjustment</li> </ul> Discontinued <ul style="list-style-type: none"> <li>• Right side cover protector</li> <li>• Magnet on ATF strainer</li> </ul>		○		—
	Changed <ul style="list-style-type: none"> <li>• 1st-hold clutch plates</li> <li>• Secondary shaft axial clearance specification</li> <li>• Torque value of the transmission housing bolts</li> </ul> Added <ul style="list-style-type: none"> <li>• 1st clutch discs</li> </ul>			○	14

The following summarizes changes made on the 93 ACCORD Shop Manual (Code No. 62SN700), 93 ACCORD Shop Manual Supplement (Code No. 62SN720) and 94 ACCORD Shop Manual Supplement (Code No. 62SN721).

ITEM	DESCRIPTION	CODE NO.			REFERENCE SECTION
		62SN720	62SN721	62SN722	
Brake	Application of brake pads changed due to 2.3 l model addition	○			—
	Changed <ul style="list-style-type: none"> <li>• Torque value of rear brake caliper bracket mounting bolt for conventional brakes</li> <li>• Anti-lock Brake System (ABS)</li> </ul>		○		—
	Possible to replace the reservoir and the accumulator of the modulator unit			○	19
Body	Added <ul style="list-style-type: none"> <li>• Front spoiler for 2.3 l model</li> <li>• Trunk spoiler for 2.3 l model</li> </ul>	○			—
	Some protectors of doors added		○		—
Electrical	Changed <ul style="list-style-type: none"> <li>• Ignition system (2.3 l model)</li> <li>• Power supply circuit</li> <li>• Starter mounting bolt torque value changed (M/T)</li> </ul> Keyless entry system added (KE)	○			—
	Added <ul style="list-style-type: none"> <li>• Cruise control system (KE model)</li> <li>• Supplemental Restraint System (SRS) Type III</li> </ul> Changed <ul style="list-style-type: none"> <li>• Power supply circuit</li> <li>• AT gear position indicator circuit</li> <li>• Trunk light</li> <li>• Location of head light washer switch (KE model)</li> <li>• Horn system</li> <li>• Supplemental Restraint System (SRS) Type II</li> </ul>		○		—
	Changed <ul style="list-style-type: none"> <li>• Keyless entry and Security alarm system</li> </ul>			○	23

## **General Information**

<b>Chassis and Engine Numbers .....</b>	<b>1-2</b>
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# Chassis and Engine Numbers

## Vehicle Identification Number (VIN)

SHHCC75200U100001

**Manufacturer, Make and**

**Type of Vehicle**

SHH: HONDA OF THE U.K.MFG.,  
LTD. U.K.  
HONDA Passenger car

**Body Type**

CC7: ACCORD

**Body and Transmission Type**

5: 4-door Sedan/5-speed Manual  
6: 4-door Sedan/4-speed Automatic

**Vehicle Grade**

2: 1.8i S  
3: 1.8i ES  
4: 2.0i  
5: 2.0i S  
6: 2.0i LS  
7: 2.0i ES  
8: 2.3i SR

**Fixed Code**

**Auxiliary Number**

**Factory Code**

U: Honda of the U.K. Manufacturing  
in U.K.

**Model Year**

1: 1994 (Except 1.8 l model)  
1: 1995 (1.8 l model)

**Serial Number**

## Engine Number

F18A3-E200001

**Engine Type**

F18A3: 1.8 l Sequential Multiport  
Fuel-injected 115 PS engine  
Unleaded gasoline with CATA  
F20Z1: 2.0 l Sequential Multiport  
Fuel-injected 131 PS engine  
Unleaded gasoline with CATA  
F20Z2: 2.0 l Sequential Multiport  
Fuel-injected 115 PS engine  
Unleaded gasoline with CATA  
H23A3: 2.3 l Sequential Multiport  
Fuel-injected 158 PS engine  
Unleaded gasoline with CATA

**Serial Number**

## Transmission Number

MP6A-3000001

**Transmission Type**

MP6A: Automatic for F20Z1, H23A3  
engines  
N2C4: Manual for F20Z2 engine  
N2D4: Manual for H23A3 engine  
N2S4: Manual for F20Z1, F18A3 engines

**Serial Number**

Automatic: 3000001 ~  
Manual: 2000001 ~



MODEL	GRADE NAME	APPLICABLE AREA CODE	TRANSMISSION TYPE	VEHICLE IDENTIFICATION NUMBER	ENGINE NUMBER	TRANSMISSION NUMBER
ACCORD (without ABS)	1.8i S	KG	5MT	SHHCC75200U100001 ~	F18A3-E200001 ~	N2S4-2000001 ~
	2.0i	KG	5MT	SHHCC75400U100001 ~	F20Z2-E200001 ~	N2C4-2000001 ~
	2.0i LS	KG	5MT	SHHCC75600U100001 ~	F20Z2-E200001 ~	N2C4-2000001 ~
	2.0i S	KG	5MT	SHHCC75500U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
		KS	5MT	SHHCC75500U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
ACCORD (with ABS)	1.8i ES	KG*1,*2,*3	5MT	SHHCC75300U100001 ~	F18A3-E200001 ~	N2S4-2000001 ~
	2.0i	KG*1	5MT	SHHCC75400U100001 ~	F20Z2-E200001 ~	N2C4-2000001 ~
		KE*1	5MT	SHHCC75400U100001 ~	F20Z2-E200001 ~	N2C4-2000001 ~
	2.0i LS	KG*1	5MT	SHHCC75600U100001 ~	F20Z2-E200001 ~	N2C4-2000001 ~
		KG*1,*2	5MT	SHHCC75600U100001 ~	F20Z2-E200001 ~	N2C4-2000001 ~
	2.0i S	KG*1	5MT	SHHCC75500U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
			4AT	SHHCC76500U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~
	2.0i LS	KG	5MT	SHHCC75600U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
			4AT	SHHCC76600U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~
		KG*1	5MT	SHHCC75600U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
			4AT	SHHCC76600U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~
		KG*2,*3	5MT	SHHCC75600U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
			4AT	SHHCC76600U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~
		KG*1,*3	5MT	SHHCC75600U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
			4AT	SHHCC76600U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~
		KS	5MT	SHHCC75600U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
			4AT	SHHCC76600U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~
		KS*3	5MT	SHHCC75600U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
			4AT	SHHCC76600U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~
		KS*1	5MT	SHHCC75600U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
			4AT	SHHCC76600U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~
	KS*1,*3	5MT	SHHCC75600U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~	
		4AT	SHHCC76600U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~	
	KE*1,*4	5MT	SHHCC75600U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~	
		4AT	SHHCC76600U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~	
	2.0i ES	KG*1,*2,*3	5MT	SHHCC75700U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
			4AT	SHHCC76700U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~
		KE*1,*2,*3	5MT	SHHCC75700U100001 ~	F20Z1-E200001 ~	N2S4-2000001 ~
			4AT	SHHCC76700U100001 ~	F20Z1-E200001 ~	MP6A-3000001 ~
	2.3i SR	KG*1,*2,*3	5MT	SHHCC75800U100001 ~	H23A3-E200001 ~	N2D4-2000001 ~
			4AT	SHHCC76800U100001 ~	H23A3-E200001 ~	MP6A-3000001 ~
		KS*1,*3	5MT	SHHCC75800U100001 ~	H23A3-E200001 ~	N2D4-2000001 ~
4AT			SHHCC76800U100001 ~	H23A3-E200001 ~	MP6A-3000001 ~	
KS*3		5MT	SHHCC75800U100001 ~	H23A3-E200001 ~	N2D4-2000001 ~	
	4AT	SHHCC76800U100001 ~	H23A3-E200001 ~	MP6A-3000001 ~		

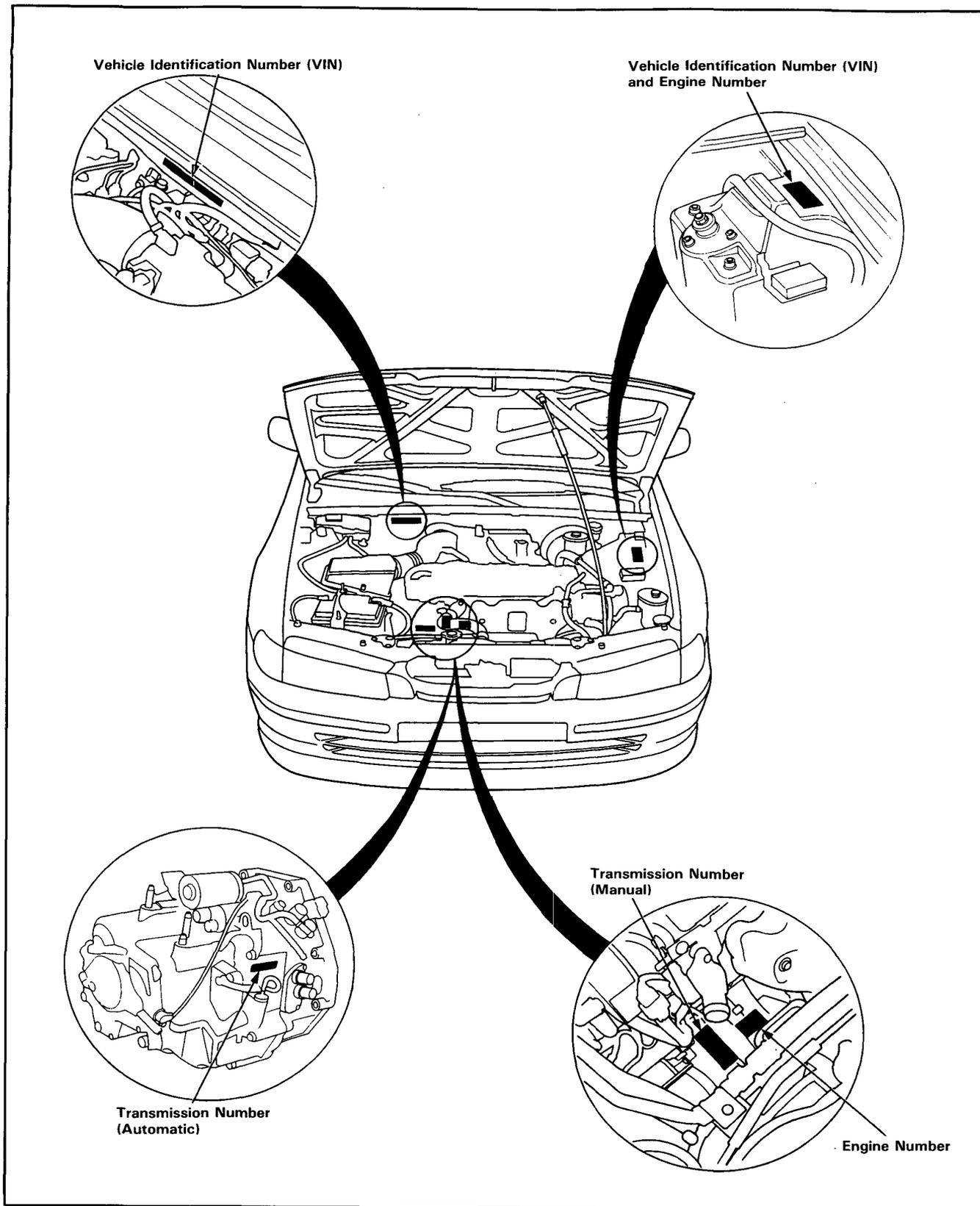
\*1: With sunroof

\*2: With air conditioning

\*3: With driver and front passenger SRS airbag system (Type III)

\*4: With driver SRS airbag system (Type II)

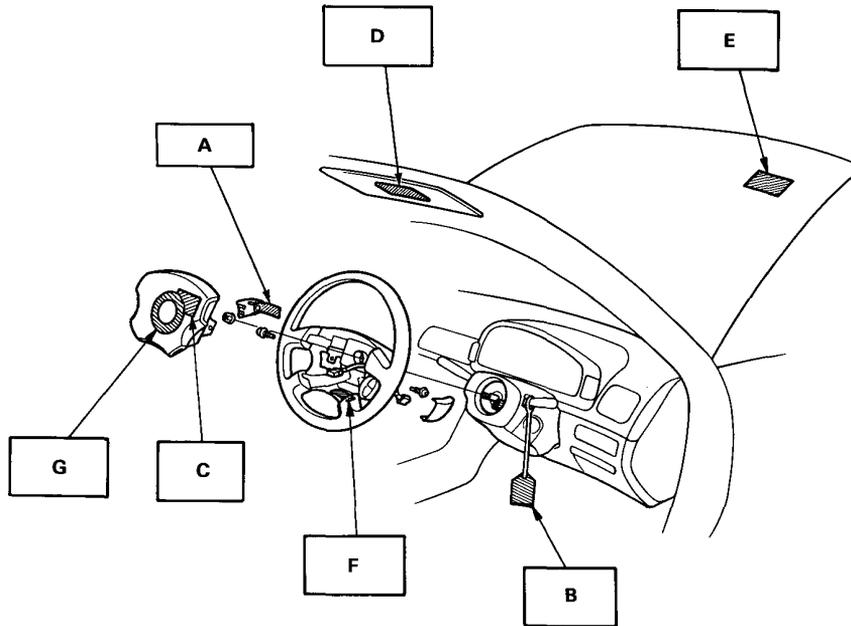
# Identification Number Locations





# Warning/Caution Label Locations

## SRS Airbag System Type II



**A: MAINTENANCE LID CAUTION**  
Option on some model versions:

注意 **[SRS]**  
SRSメンテナンスは、イグニッション スイッチを切ってから行うこと。

CAUTION **[SRS]**  
BEFORE MAINTENANCE, SWITCH OFF THE IGNITION.

ATTENTION  
AVANT TOUT ENTRETIEN, COUPER LE CONTACT.

ACHTUNG  
VOR WARTUNG ZÜNDUNG AUSSCHALTEN.

LET OP  
ZET HET KONTAKTSLOT AF ALVORENS MET HET ONDERHOUD TE BEGINNEN.

**B: SRS CAUTION TAG**  
Option on some model versions

**C: MONITOR CAUTION**

**NOTICE**

- REFER TO SERVICE (SHOP) MANUAL FOR DETAILED INSTRUCTIONS.

**REMARQUE**

- POUR LES INSTRUCTIONS DÉTAILLÉES, SE REPORTER AU MANUEL DE REPARATIONS.

**LET OP**

- RAADPLEEG HET WERKPLAASHANDBOEK VOOR NADERE AANWIJZINGEN.

**ACHTUNG**

- AUSFÜHRICHE ANWEISUNGEN SIND DEM WERKSTATTHANDBUCH ZU ENTNEHMEN.

**D: DRIVER INFORMATION (SUNVISOR)**  
Standard equipment:

**[SRS] ALWAYS WEAR YOUR SEAT BELT**

- THIS CAR IS EQUIPPED WITH A DRIVER AIRBAG AS A SUPPLEMENTAL RESTRAINT SYSTEM (S.R.S.).
- IT IS DESIGNED TO SUPPLEMENT THE SEAT BELT.
- IF YOUR SRS INDICATOR LIGHTS WHILE DRIVING SEE YOUR AUTHORIZED HONDA DEALER.

(cont'd)

# Warning/Caution Label Locations

## SRS Airbag System Type II (cont'd)

### E: SRS WARNING (HOOD)

Standard equipment:

**WARNING** **SRS**  
THIS VEHICLE IS EQUIPPED WITH AN AIRBAG SYSTEM AS A SUPPLEMENTAL RESTRAINT SYSTEM (S.R.S.). ALL S.R.S. ELECTRICAL WIRING AND CONNECTORS ARE COLORED YELLOW. DO NOT USE ELECTRICAL TEST EQUIPMENT ON THESE CIRCUITS. TAMPERING WITH OR DISCONNECTING THE S.R.S. WIRING COULD RESULT IN ACCIDENTAL FIRING OF THE INFLATOR OR MAKE THE SYSTEM INOPERATIVE, WHICH MAY RESULT IN SERIOUS INJURY.

**ATTENTION** **SRS**  
CE VEHICULE EST EQUIPE D'UN COUSSIN D'AIR DU COTE CONDUCTEUR QUI CONSTITUE UN SYSTEME DE RETENUE COMPLEMENTAIRE (SRS). TOUS LES FILS ET CONNECTEURS ELECTRIQUES DU SYSTEME DE RETENUE COMPLEMENTAIRE (SRS) SONT DE COULEUR JAUNE. NE PAS UTILISER UN EQUIPEMENT D'ESSAIS ELECTRIQUES SUR CES CIRCUITS. NE PAS TOUCHER OU DEBRANCHER LES FILS DU SYSTEME SRS CAR CECI POURRAIT DECLANCHER ACCIDENTELLEMENT LE GONFLEUR OU RENDRE LE SYSTEME INOPERANT ET PROVOQUER AINSI DE GRAVES BLESSURES.

**WARNUNG** **SRS**  
DIESES FAHRZEUG IST MIT EINEM FAHRER-AIRBAG (S.R.S.) ALS ZUSÄTZLICHES RÜCKHALTESYSTEM AUSGERÜSTET. ALLE ELEKTRISCHEN KABEL, SOWIE DIE ZUGEHÖRIGEN STECKVERBINDER DES S.R.S. -SYSTEMS SIND IN GELBER FARBE AUSGEFÜHRT. KEINE ELEKTRISCHEN PRÜFGERÄTE AN DIE S.R.S. -VERKABELUNG ANSCHLIESSEN. VERÄNDERN ODER UNTERBRECHEN DER S.R.S. -VERKABELUNG KANN UNKONTROLLIERTES ZÜNDEN DES GASPATRONE AUSLÖSEN. ODER DAS SYSTEM AUSSER FUNKTION SETZEN. WAS ZU ERNSTHAFTEN VERLETZUNGEN FÜHREN KANN.

**WAARSCHUWING** **SRS**  
DIT VOERTUIG IS UITGERÜST MET EEN AIRBAG AAN DE BESTUURDERSKANT ALS EXTRA BESCHERMING (S.R.S.). ALLE ELEKTRISCHE BEDRADING EN AANSLUITINGEN VAN DE S.R.S. ZIJN GEEL GEKLEURD. GEBRUIK GEEN ELEKTRISCHE TESTAPPARATUUR VOOR DEZE CIRCUITS. KNOELEN MET OF LOSKOPPELEN VAN DE S.R.S. BEDRADING KAN LEIDEN TOT BRAND IN DE VULINRICHTING OF TOT UITSCHAKELEN VAN HET SYSTEEM: DIT KAN TOT ERNSTIGE ONGELUKKEN LEIDEN.

### F: COVER CAUTION

**SRS**  
**CAUTION**  
注意 **ACHTUNG**

- SRSメンテナンス時は サービス マニュアルを参照すること。
- REFER TO THE SHOP MANUAL.
- SE REPORTER AU MANUEL D'ATELIER.
- WERKSTATT HANDBUCH LESEN.
- LEES HET WERKPLAATSHANDBOEK.

### G: BAM INFLATOR LABEL

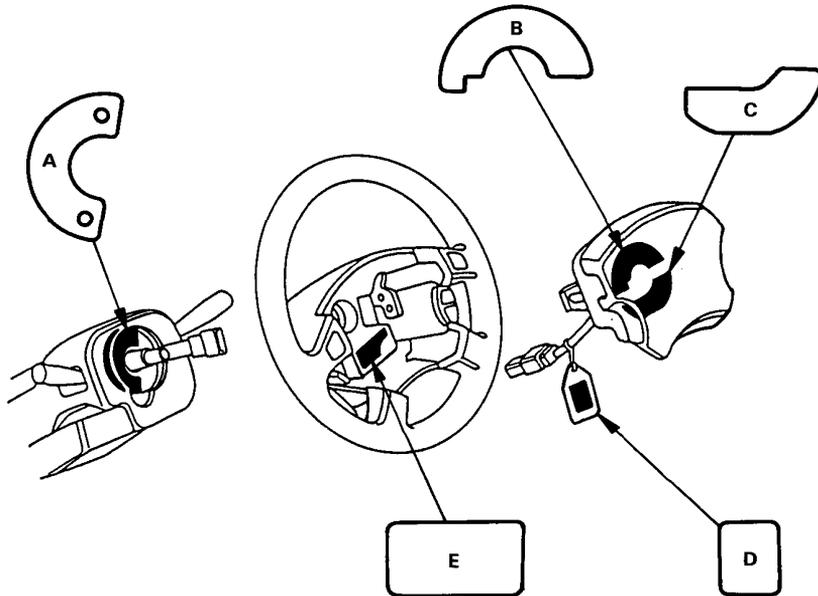
**AIRBAG GENERATOR IFM,**  
**BAM-PT1-0393**  
**NIPPON KOKI, SHIRAKAWA JAPAN**  
**HERSTELLUNGSJAHR: 1991**  
**EINFUHRER: HONDA DEUTSCHLAND GMBH/OFFENBACH**  
.....  
**DER GASGENERATOR DARF NUR FÜR INSASSEN-RÜCKHALTESYSTEME MIT LUFTSACK IN KRAFTFAHRZEUGE MONTIERT WERDEN.**  
**DIE MONTAGE UND DEMONTAGE DES GASGENERATORS DARF NUR VON DAFÜR GESCHULTEM PERSONAL VORGENOMMEN WERDEN.**

.....  
**DANGER CONTAINS SODIUM AZIDE AND POTASSIUM PERCHLORATE.**  
**CONTENTS ARE EXTREMELY FLAMMABLE.**  
**DO NOT DISMANTLE OR INCINERATE.**  
**DO NOT PROBE WITH ELECTRICAL DEVICES.**

.....  
危険物：アジ化ソーダと過塩素酸カリウムを含んでいます。  
強燃性です。分解、焼却しないで下さい。  
電気（抵抗）検査をしないで下さい。



# SRS Airbag System Type III



## A: CABLE REEL CAUTION

**SRS**  
REFER TO SERVICE (SHOP) MANUAL FOR DETAILED INSTRUCTIONS.

POUR LES INSTRUCTIONS DETAILLÉES, SE REPORTER AU MANUEL DE REPARATIONS.

取扱い、保管はサービスマニュアルを参照してください。

AUSFÜHRLICHE ANWEISUNGEN SIND DEM WERKSTATTHBUCH ZU ENTNEHMEN.

RAADPLEEG HET WERKPLAATSHANDBOEK VOOR NADERE AANWIJZINGEN.

## B: DRIVER MODULE DANGER

Except KS model:

- DANGER EXPLOSIVE/FLAMMABLE POISON REFER TO SHOP MANUAL. **SRS**
- DANGER EXPLOSIF ET INFLAMMABLE POISON SE REPORTER AU MANUEL D'ATELIER.
- GEFAHR EXPLOSIV/ENTZUNDBAR GIFT WERKSTATTHANDBUCH LESEN.
- GEVAAR EXPLOSIEGEVAAR/BRANDBAAR GIFTIG LEES HET WERKPLAATSHANDBOEK.

## KS model:

- DANGER EXPLOSIVE/FLAMMABLE POISON REFER TO THE SHOP MANUAL.
- FARLIGT EXPLOIVT/LÄTTANTÄNDLIGT GIFTIGT SE VERKSTADSHANDBOKEN.
- VAARA HELPOSTI RÄJÄHTÄVÄ/SYTTYVÄ MYRKKY GIFT KATSO TYÖKÄSIKIRJAA.

- مادة خطيرة  
مادة متفجرة/قابلة للاشتعال  
مادة سامة

لمزيد من المعلومات نرجو مراجعة كتيب دليل الاستخدام في الورشة.

## C: DRIVER MODULE WARNING

Except KS model:

- WARNING** **SRS**
- REFER TO THE SHOP MANUAL.
  - SE REPORTER AU MANUEL D'ATELIER.
  - WERKSTATTHANDBUCH LESEN.
  - LEES HET WERKPLAATSHANDBOEK.

## KS model:

- WARNING** **SRS**
- REFER TO THE SHOP MANUAL.
  - SE VERKSTADSHANDBOKEN.
  - KATSO TYÖKÄSIKIRJAA.
- لمزيد من المعلومات نرجو مراجعة كتيب دليل الاستخدام في الورشة.

(cont'd)

# Warning/Caution Label Locations

## SRS Airbag System Type III (cont'd)

### D: BAM INFLATOR LABEL (DRIVER)

AIR BAG GAS GENERATOR UT11600  
MORTON INTERNATIONAL, INC.  
OGDEN UT. USA  
HERSTELLUNGSJAHR: 1992  
EINFÜHRER: HONDA DEUTSCHLAND  
GMBH/OFFENBACH  
BAM PT-0388

DER GASGENERATOR DARF NUR FÜR INSASSEN-RÜCKHALTESYSTEME MIT LUFTSACK IN KRAFTFAHRZEUGE MONTIERT WERDEN.  
DIE MONTAGE UND DEMONTAGE DES GASGENERATORS DARF NUR VON DAFÜR GESCHULTEM PERSONAL VORGENOMMEN WERDEN.

CAUTION THE GAS GENERATOR SHOULD ONLY BE CONTAINS INSTALLED IN VEHICLES EQUIPPED FLAMMABLE WITH THE AIRBAG SYSTEM.  
SOLIDS THE GAS GENERATOR IS TO BE IN- US DOT-E-8214 STALLED AND/OR DISASSEMBLED ONLY BY TRAINED PERSONNEL.

ATTENTION LE GENERATEUR DE GAZ NE PEUT ETRE CONTENT INSTALLE QUE SUR DES VEHICULES DE EQUIPES D'UN SYSTEME AIRBAG. LE SOLIDES MONTAGE ET LE DEMONTAGE DU FLAMMABLES GENERATEUR DE GAZ NE PEUT ETRE EF- US DOT-E-8214 FECTUE QUE PAR UN PERSONNEL QUALIFIE.

### E: STEERING WHEEL WARNING

WARNING **SRS**  
● REFER TO THE SHOP MANUAL.  
● SE REPORTER AU MANUEL D'ATELIER.  
● WERKSTATTHANDBUCH LESEN.  
● LEES HET WERKPLAATSHANDBOEK.

Label D and E locations: Refer to page 1-7

### F: STEERING COLUMN CAUTION

KG model:

CAUTION **SRS**  
TO AVOID DAMAGING THE S.R.S. CABLE OR REEL, WHICH COULD MAKE THE SYSTEM INOPERATIVE, REMOVE THE STEERING WHEEL BEFORE REMOVING THE STEERING SHAFT CONNECTOR BOLT.

ATTENTION **SRS**  
POUR NE PAS RISQUER D'ENDOMMAGER LE CABLE OU L'ENROULEUR DU S.R.S. ET RENDRE AINSI LE SYSTEME INOPERANT, RETIREZ LE VOLANT AVANT DE DEVISSER LE BOULON D'ACCOUPEMENT D'ARBRE DE DIRECTION.

ACHTUNG **SRS**  
UM BESCHÄDIGUNGEN DER S.R.S.-KABELROLLE ODER DES KABELS. WELCHE DAS S.R.S.-SYSTEM AUSSER FUNKTION SETZEN WÜRDEN, ZU VERMEIDEN, VOR ARBEITEN AN DER LENKSPINDEL DAS LENKRAD AUSBAUEN.

WAARSCHUWING **SRS**  
OM TE VOORKOMEN DAT DE S.R.S. -KABLE OF -HASPEL BESCHADIGD WORDEN, HETGEEN ERTOE ZOU LEIDEN DAT HET SYSTEEM UITVALT, DIENT U HET STUUR TE VERWIJDEREN VOORDAT U DE STUURSCHACHT-CONNECTORBOUT VERWIJDERT.

KE model:

CAUTION **SRS**  
TO AVOID DAMAGING THE S.R.S. CABLE OR REEL, WHICH COULD MAKE THE SYSTEM INOPERATIVE, REMOVE THE STEERING WHEEL BEFORE REMOVING THE STEERING SHAFT CONNECTOR BOLT.

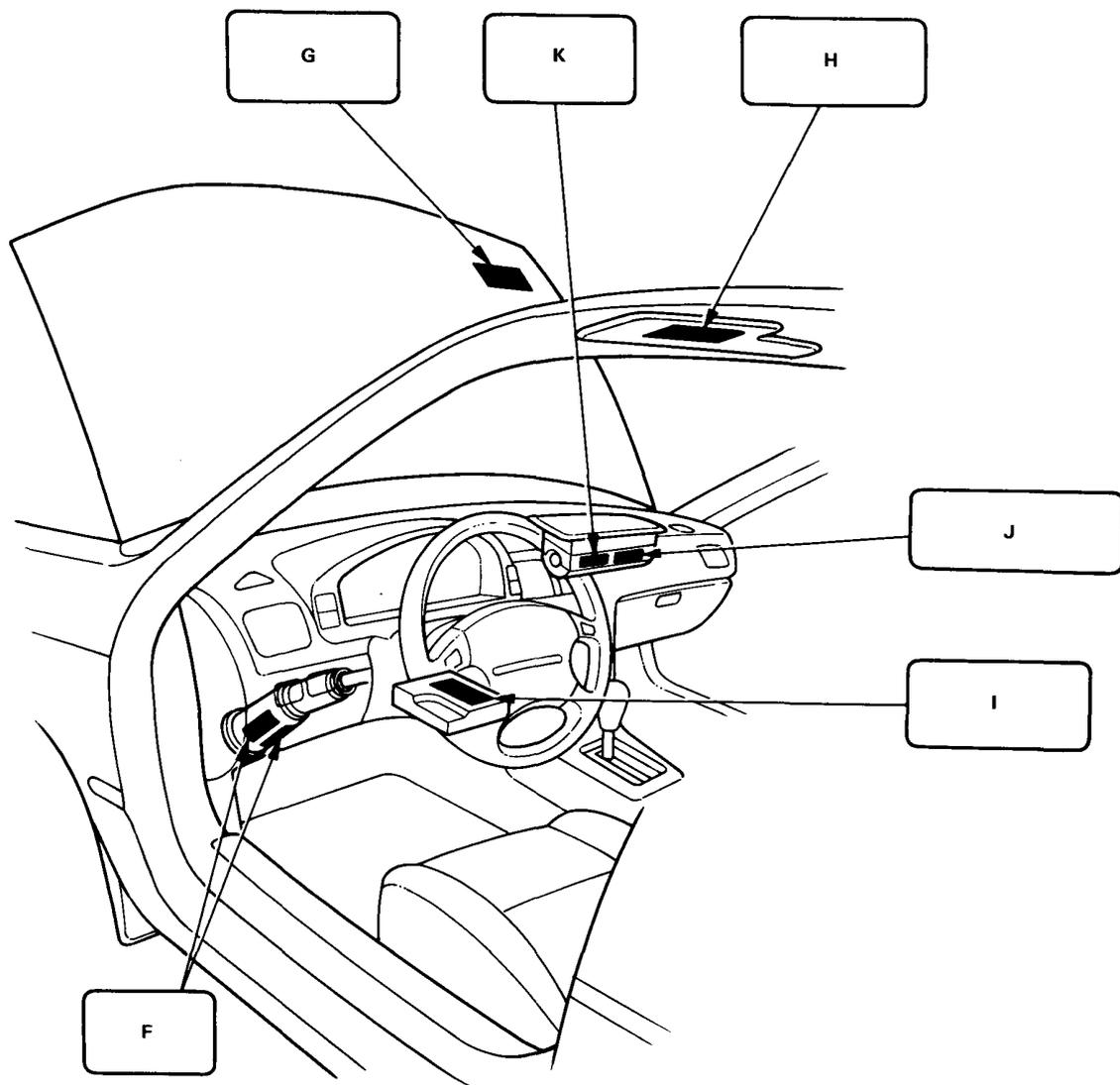
ATTENTION **SRS**  
POUR NE PAS RISQUER D'ENDOMMAGER LE CABLE OU L'ENROULEUR DU S.R.S. ET RENDRE AINSI LE SYSTEME INOPERANT, RETIREZ LE VOLANT AVANT DE DEVISSER LE BOULON D'ACCOUPEMENT D'ARBRE DE DIRECTION.

KS model:

OBSERVERA **SRS**  
FÖR ATT UNDVİKA SKADOR PA SRS-SYSTEMETS KABEL ELLER TRUMMA. NAGOT SOM KAN GÖRA ATT SYSTEMET INTE FUNGERAR. SKALL RATTEN TAS BORT INNAN RATTAXELNS BULT TAS BORT.

VAROITUS **SRS**  
SRS-KAAPELIN JA RULLAN VAHINGOITTUMISEN OSTMISEKSI, JOTTA JÄRJOSTELMÄ EI MENISI KÄYTTÖKELVOTTOMAKSI, IRROTETAAN OHJAUSPYÖRÄ ENNON KUIN IRROTETAAN OHJAUSVARREN LIITTIMEN PULTTI.

Label F location: Refer to page 1-9



(cont'd)

# Warning/Caution Label Locations

## SRS Airbag System Type III (cont'd)

### G: SRS WARNING (HOOD)

Except KS model:

#### WARNING **SRS**

- THIS VEHICLE IS EQUIPPED WITH AN AIRBAG SYSTEM AS A SUPPLEMENTAL RESTRAINT SYSTEM. (SRS) ALL S.R.S. ELECTRICAL WIRING AND CONNECTORS ARE COLORED YELLOW. DO NOT USE ELECTRICAL TEST EQUIPMENT ON THESE CIRCUITS. TAMPERING WITH OR DISCONNECTING THE S.R.S. WIRING COULD RESULT IN ACCIDENTAL FIRING OF THE INFLATOR OR MAKE THE SYSTEM INOPERATIVE WHICH MAY RESULT IN SERIOUS INJURY.

#### ATTENTION **SRS**

- CE VEHICULE EST EQUIPE D'UN COUSSIN D'AIR DU COTE CONDUCTEUR QUI CONSTITUE UN SYSTEME DE RETENUE COMPLEMENTAIRE (SRS). TOUS LES FILS ET CONNECTEURS ELECTRIQUES DU SYSTEME DE RETENUE COMPLEMENTAIRE (SRS) SONT DE COULEUR JAUNE. NE PAS UTILISER UN EQUIPEMENT D'ESSAIS ELECTRIQUES SUR CES CIRCUITS. NE PAS TOUCHER OU DEBRANCHER LES FILS DU SYSTEME SRS CAR CECI POURRAIT DECLANCHER ACCIDENTELLEMENT LE GONFLEUR OU RENDRE LE SYSTEME INOPERANT ET PROVOQUER AINSI DE GRAVES BLESSURES.

#### WARNUNG **SRS**

- DIESES FAHRZEUG IST MIT EINEM FAHRER-AIRBAG (SRS) ALS ZUSÄTZLICHES RÜCKHALTESYSTEM AUSGERÜSTET. ALLE ELEKTRISCHEN KABEL, SOWIE DIE ZUGEHÖRIGEN STECKVERBINDER DES S.R.S.-SYSTEMS SIND IN GELBER FARBE AUSGEFÜHRT. KEINE ELEKTRISCHEN PRÜFGERÄTE AN DIE S.R.S.-VERKABELUNG ANSCHLIESSEN. VERÄNDERN ODER UNTERBRECHEN DER S.R.S.-VERKABELUNG KANN UNKONTROLLIERTES ZÜNDEN DES GASPATRONE AUSLÖSEN. ODER DAS SYSTEM AUSSER FUNKTION SETZEN. WAS ZU ERNSTHAFTEN VERLETZUNGEN FÜHREN KANN.

#### WAARSCHUWING **SRS**

- DIT VOERTUIG IS UITGERUST MET EEN AIRBAG AAN DE BESTUURDERSKANT ALS EXTRA BESCHERMING (S.R.S.). ALLE ELEKTRISCHE BEDRADING EN AANSLUITINGEN VAN DE S.R.S. ZIJN GEEL GEKLEURD. GEBRUIK GEEN ELEKTRISCHE TESTAPPARATUUR VOOR DEZE CIRCUITS. KNOEIEN MET OF LOSKOPPELEN VAN DE S.R.S. BEDRADING KAN LEIDEN TOT BRAND IN DE VULINRICHTING OF TOT UITSCHAKELLEN VAN HET SYSTEEM: DIT KAN TOT ERNSTIGE ONGELUKKEN LEIDEN.

Label G location: Refer to page 1-9.

### KS model:

#### WARNING **SRS**

- THIS VEHICLE IS EQUIPPED WITH AN AIRBAG SYSTEM AS A SUPPLEMENTAL RESTRAINT SYSTEM. (SRS) ALL S.R.S. ELECTRICAL WIRING AND CONNECTORS ARE COLORED YELLOW. DO NOT USE ELECTRICAL TEST EQUIPMENT ON THESE CIRCUITS. TAMPERING WITH OR DISCONNECTING THE S.R.S. WIRING COULD RESULT IN ACCIDENTAL FIRING OF THE INFLATOR OR MAKE THE SYSTEM INOPERATIVE, WHICH MAY RESULT IN SERIOUS INJURY.

#### VARNING **SRS**

- DETTA FORDON HAR EN LUFTKUDDE FÖR FÖRARSÄTET SOM ETT KOMPLETTERANDE SKYDDSSYSTEM (SRS). SAMTLIGA ELLEDNINGAR OCH KONTAKTER I SRS-SYSTEMET ÄR GULFÄRGADE. ANVÄND INTE ELEKTRISK PROVUTRUSTNING FÖR DESA KRETSAR. OM DU ÄNDRAR ELLER LOSSAR EN SRS-LEDNING KAN DET RESULTERA I EN OAVSIKTIG UT-LÖSNING AV TRYCKPUMPEN ELLER GÖRA ATT SYSTEMET SLUTAR FUNGERA. DÅ KAN EN ALLVARLIG OLYCKA UPPSTÅ.

#### VAROITUS **SRS**

- TÄSSÄ AUTOSSA ON YLIMÄÄRÄISENÄ TUKIJÄRJESTELMÄNÄ AJAJAN ILMATYYNY. (SRS) KAIKKI SRS-SÄHKÖJOHDOT JA -LIITTIMET OVAT KELTAISET. ÄLÄ KÄYTÄ SÄHKÖKOELAITTEITA NÄISSÄ VIRTAPIIREISÄÄ. SRS-JOHTOJEN TUKKEAMINEN TAI IRROTAMINEN SAATTAÄ SYTYTTÄÄ VAHINGOSSA PUMPUN TAI TEHDÄ JÄRJESTELMÄN KÄYTTÖKELVOTTOMAKSI. TÄSTÄ-TAAS SAATTAÄ AIHEUTUA VAKAVIA VAURIOITA.

**H: DRIVER INFORMATION (SUNVISOR)**

KG model:

<p><b>SRS</b> ALWAYS WEAR YOUR SEAT BELT</p> <ul style="list-style-type: none"> <li>● THIS CAR IS EQUIPPED WITH A DRIVER AIRBAG AND A FRONT SEAT PASSENGER AIRBAG AS A SUPPLEMENTAL RESTRAINT SYSTEM (S.R.S.).</li> <li>● IT IS DESIGNED TO SUPPLEMENT THE SEAT BELT.</li> <li>● IF YOUR SRS INDICATOR LIGHTS WHILE DRIVING SEE YOUR AUTHORIZED HONDA DEALER.</li> </ul>
<p><b>SRS</b> ATTACHEZ TOUJOURS VOTRE CEINTURE</p> <ul style="list-style-type: none"> <li>● CE VEHICULE EST EQUIPE D'UN SAC GONFLABLE POUR LA SECURITE DU CONDUCTEUR. ET D'UN SAC GONFLABLE POUR LA SECURITE DU PASSAGER AVANT, QUI CONSTITUENT UN SYSTEME DE RETENUE COMPLEMENTAIRE (S.R.S.).</li> <li>● CE COUSSIN D'AIR VIENT EN COMPLEMENT DE LA CEINTURE DE SECURITE.</li> <li>● SI LE TEMON SRS S'ALLUME PENDANT LA CONDUITE, ADRESSEZ-VOUS A VOTRE CONCESSIONNAIRE.</li> </ul>
<p><b>SRS</b> SICHERHEITSGURTE BEI JEDER FAHRT ANLEGEN</p> <ul style="list-style-type: none"> <li>● DIESES FAHRZEUG BESITZT JE EINEN AIRBAG FÜR FAHRER UND BEIFAHREER ALS ZUSÄTZLICHES RÜCKHALTESYSTEM (S.R.S.).</li> <li>● DAS RÜCKHALTESYSTEM IST EINE ERGÄNZUNG ZUM SICHERHEITSGURT.</li> <li>● SOLLTE WÄHREND DER FAHRT DIE SRS-KONTROLLEUCHTE AUFLEUCHTEN SUCHE SIE BITTE UNGEHEND EINEN HONDA-HÄNDLER AUF.</li> </ul>
<p><b>SRS</b> DRAAG ALTIJD UW VEILIGHEIDSGORDEL</p> <ul style="list-style-type: none"> <li>● DIT VOERTUIG IS UITGERUST MET EENLUCHTKUSSEN AAN DE BESTUURDERSZIJDE EN PASSAGIERSZIJDE ALS TOEGEVOEGD VEILIGHEIDSSYSTEEM (S.R.S.).</li> <li>● ONTWORPEN ALS EXTRA BESCHERMING NAAST DE VEILIGHEIDSGORDELS.</li> <li>● ALS HET SRS-WAARSCHUWINGSLAMPJE GAAT BRANDEN ONDER HET RIJDEN, NEEM DAN KONTAKT OP MET UW HONDA DEALER.</li> </ul>

Label H location: Refer to page 1-9.

KE model:

<p><b>SRS</b> ALWAYS WEAR YOUR SEAT BELT</p> <ul style="list-style-type: none"> <li>● THIS CAR IS EQUIPPED WITH A DRIVER AIRBAG AND A FRONT SEAT PASSENGER AIRBAG AS A SUPPLEMENTAL RESTRAINT SYSTEM (S.R.S.).</li> <li>● IT IS DESIGNED TO SUPPLEMENT THE SEAT BELT.</li> <li>● IF YOUR SRS INDICATOR LIGHTS WHILE DRIVING SEE YOUR AUTHORIZED HONDA DEALER.</li> </ul>
--

KS model:

<p><b>SRS</b> ALWAYS WEAR YOUR SEAT BELT</p> <ul style="list-style-type: none"> <li>● THIS CAR IS EQUIPPED WITH A DRIVER AIRBAG AND A FRONT SEAT PASSENGER AIRBAG AS A SUPPLEMENTAL RESTRAINT SYSTEM (S.R.S.).</li> <li>● IT IS DESIGNED TO SUPPLEMENT THE SEAT BELT.</li> <li>● IF YOUR SRS INDICATOR LIGHTS WHILE DRIVING SEE YOUR AUTHORIZED HONDA DEALER.</li> </ul>
<p><b>SRS</b> ANVÄND ALLTID BILBÄLTET</p> <ul style="list-style-type: none"> <li>● DETTA FORDON ÄR FÖRSETT MED LUFTKUDDE PÅ BÅDE FÖRARE- OCH PASSAGERARESÄTENA FRAM SOM ETT KOMPLETTERANDE SKYDDSSYSTEM (S.R.S.).</li> <li>● DET ÄR ÄMNAT ATT KOMPLEMENTERA BILBÄLTET.</li> <li>● OM SRS-INDIKATORN TÄNDS UNDER KÖRNING SKALL DU KONTAKTA EN AUKTORISERAD HONDA-ATERFÖRSÄLJARE.</li> </ul>
<p><b>SRS</b> KÄYTÄ AINA TURVAVÖITÄ</p> <ul style="list-style-type: none"> <li>● TÄMÄ AUTO ON VARUSTETTU AJAJAN ILMATYNYLLÄ JA ETUMATKUSTAJAN ILMATYNYLLÄ, JOTKA TOIMIVAT LISÄSUOJAJÄRJESTELMÄNÄ (S.R.S.).</li> <li>● SE ON SUUNNITELTU TÄYDENTÄMÄÄN TURVAVYÖTÄ.</li> <li>● JOS SRS-MERKKIVALO SYTTYY AJON AIKANA, OTTAKAA YHTEYS VALTUUTETTUUN HONDAHUOLTOON.</li> </ul>

(cont'd)

# Warning/Caution Label Locations

## SRS Airbag System Type III (cont'd)

### I: MONITOR NOTICE

#### NOTICE

SRS

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

#### お願い

- 分解しないで下さい。
- 取扱い、保管はサービスマニュアルを参照してください。

#### REMARQUE

- AUCUNE PIECE REPARABLE A L'INTERIEUR.
- POUR LES INSTRUCTIONS DETAILLEES, SE REPORTER AU MANUEL DE REPARATIONS.

#### LET UP!

- GEEN ONDERDELEN BINNEN DEZE UNIT WAARAAN WERKZAAMHEDEN KUNNEN WORDEN VERRICHT.
- RAADPLEEG HET WERKPLAATSHANDBOEK VOOR NADERE AANWIJZINGEN.

#### ACHTUNG

- DIE INNENTEILE BEDÜRFEN KEINER WARTUNG.
- AUSFÜHRICHE ANWEISUNGEN SIND DEM WERKSTATTHANDBUCH ZU ENTNEHMEN.

### J: BAM INFLATOR LABEL (FRONT SEAT PASSENGER)

AIRBAG-GASGENERATOR UT 11873  
MORTON INTERNATIONAL, INC. OGDEN, USA  
HERSTELLUNG: (JAHR)  
EINFÜHRER: HONDA DEUTSCHLAND  
GMBH 6050 OFFENBACH  
BAM PT<sub>1</sub>-0437

DER GASGENERATOR DARF NUR FÜR INSASSEN-RÜCKHALTESYSTEME MIT LUFTSACK IN KRAFTFAHRZEUGE MONTIERT WERDEN.

DIE MONTAGE UND DEMONTAGE DES GASGENERATORS DARF NUR VON DAFÜR GESCHULTEM PERSONAL VORGENOMMEN WERDEN.

CAUTION THE GAS GENERATOR SHOULD ONLY BE  
CONTAINS INSTALLED IN VEHICLES EQUIPPED WITH  
FLAMMABLE THE AIRBAG SYSTEM.  
SOLIDS THE GAS GENERATOR IS TO BE IN-  
STALLED AND/OR DISASSEMBLED ONLY  
BY TRAINED PERSONNEL.

ATTENTION LE GENERATEUR DE GAZ NE PEUT ETRE  
CONTENT INSTALLE QUE SUR DES VEHICULES  
DE EQUIPES D'UN SYSTEME AIRBAG. LE  
SOLIDES MONTAGE ET LE DEMONTAGE DU  
FLAMMABLES GENERATEUR DE GAZ NE PEUT ETRE EF-  
FECTUE QUE PAR UN PERSONNEL  
QUALIFIE.

Label I, J and K locations: Refer to page 1-9.

### K: FRONT SEAT PASSENGER MODULE DANGER

#### ● DANGER

EXPLOSIVE/FLAMMABLE  
POISON

SRS

#### ● WARNING

REFER TO SHOP MANUAL.

#### ● DANGER

EXPLOSIF ET INFLAMMABLE  
POISON

#### ● ATTENTION

SE REPORTER AU MANUEL D'ATELIER.

#### ● GEFAHR

EXPLOSIV/ENTZUNDBAR  
GIFT

#### ● WARNUNG

WERKSTATTHANDBUCH LESEN.

#### ● GEVAAR

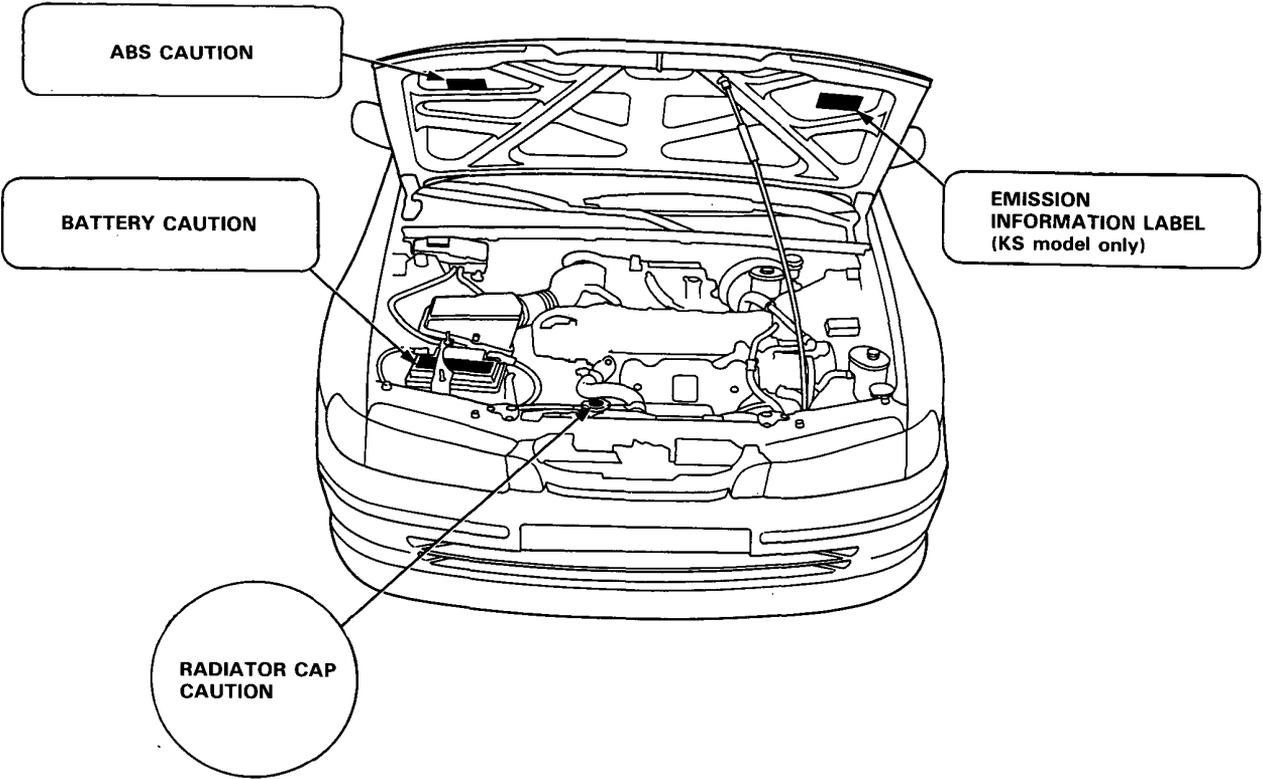
EXPLOSIEGEVAAR/BRANDBAAR  
GIFTIG

#### ● WAARSCHUWING

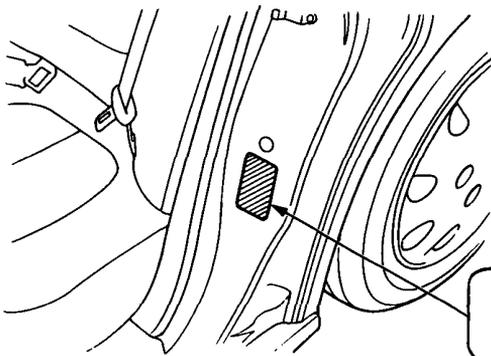
LEES HET WERKPLAATSHANDBOEK.



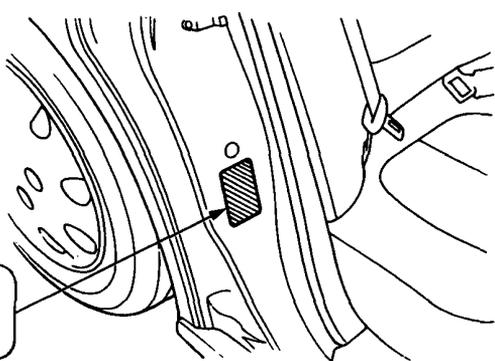
# Except SRS Airbag System



LHD



RHD

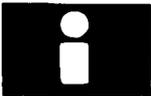


TYRE INFORMATION

# Abbreviations

List of automotive abbreviations which may be used in shop manual.

A/C	Air Conditioning, Air Conditioner	F	Front
ALT	Alternator	FP	Fuel Pump
ABS	Anti-lock Brake System	FWD	Front Wheel Drive
A/T	Automatic Transmission	FR	Front Right
ATF	Automatic Transmission Fluid	FL	Front Left
A/F	Air Fuel Ratio	FSR	Fail Safe Relay
AMP	Ampere (s)	FIA	Fuel Injection Air
ANT	Antenna		
ASSY	Assembly	GAL	Gallon
AUX	Auxiliary	GND	Ground
APPROX.	Approximately		
ATDC	After Top Dead Center	H/B	Hatchback
AUTO	Automatic	HO2S	Heated Oxygen Sensor
ATT	Attachment	HC	Hydrocarbons
ACL	Air Cleaner		
API	American Petroleum Institute		
		IAB	Intake Air Bypass
BARO	Barometric	IAC	Idle Air Control
BAT	Battery	IAR	Intake Air Resonator
BTDC	Before Top Dead Center	ICM	Ignition Control Module
BDC	Bottom Dead Center	IAT	Intake Air Temperature
		IMA	Idle Mixture Adjustment
CKP	Crankshaft Position	IN	Intake
CYP	Cylinder Position	IG or IGN	Ignition
CAT	Catalytic Converter	ID	Identification
or CATA		ID or I.D.	Inside Diameter
CO	Carbon Monoxide	INJ	Injection
CYL	Cylinder	INT	Intermittent
CPC	Clutch Pressure Control		
CARB	Carburetor	KS	Knock Sensor
COMP	Complete		
CPU	Central Processing Unit	L	Left
CHG	Charge	LH	Left Handle
		LHD	Left Handle Drive
DI	Distributor Ignition	L/C	Lock-up Clutch
DLC	Data Link Connector	LSD	Limited Slip Differential
DTC	Diagnostic Trouble Code	LF	Left Front
DIFF	Differential	LR	Left Rear
DOHC	Double Overhead Camshaft	L-4	In-line Four Cylinder (engine)
DPI	Dual Point Injection	LED	Light Emitting Diode
EVAP	Evaporative		
EGR	Exhaust Gas Recirculation		
ECM	Engine Control Module		
ECT	Engine Coolant Temperature		
EX	Exhaust		
ELD	Electrical Load Detector		
EFI	Electronic Fuel Injection		
EPS	Electrical Power Steering		



M/S Manual Steering  
 MAP Manifold Absolute Pressure  
 MIL Malfunction Indicator Light  
 M/T Manual Transmission  
 MCK Motor Check  
 MAX. Maximum  
 MIN. Minimum  
 MPI Multi Point Injection

N Neutral  
 NOx Nitrogen, Oxides of

O2S Oxygen Sensor  
 OBD On-board Diagnostic  
 OD or O.D. Outside Diameter

P Park  
 PAIR Pulsed Secondary Air Injection  
 PSP Power Steering Pressure  
 PCV Positive Crankcase Ventilation  
 Proportioning Control Valve  
 P/S Power Steering  
 PGM-FI Programmed-fuel Injection  
 PGM-IG Programmed Ignition  
 PRI Primary  
 P/N Part Number  
 PL Pilot Light  
 PMR Pump Motor Relay  
 PSW Pressure Switch  
 PSF Power Steering Fluid

Qty Quantity

R Right  
 RR Rear Right  
 RHD Right Handle Drive  
 REF Reference  
 RL Rear Left  
 RON Research Octane Number

SAE Society of Automotive Engineers  
 SOHC Single Overhead Camshaft  
 SOL Solenoid  
 SPEC Specification  
 S/R Sun Roof  
 SRS Supplemental Restraint System  
 STD Standard  
 SW Switch

SCS Service Check Signal  
 SEC Second  
 Secondary

T Torque  
 TCM Transmission Control Module  
 TWC Three Way Catalytic Converter  
 TDC Top Dead Center  
 TB Throttle Body  
 TP Throttle Position  
 TC Torque Converter  
 T/B Timing Belt  
 T/N Tool Number  
 TCS Traction Control System

VSS Vehicle Speed Sensor  
 VTEC Variable Valve Timing & Valve Lift  
 Electronic Control  
 VC Viscous Coupling  
 VIN Vehicle Identification Number  
 VVIS Variable Volume Intake System

W With  
 W/O Without  
 WOT Wide Open Throttle

2WD Two Wheel Drive  
 4WD Four Wheel Drive  
 2WS Two Wheel Steering  
 4WS Four Wheel Steering  
 4AT 4-speed Automatic Transmission  
 5MT 5-speed Manual Transmission

P Park  
 R Reverse  
 N Neutral  
 D<sub>4</sub> Drive (1st through 4th gear)  
 D<sub>3</sub> Drive (1st through 3rd gear)  
 2 Second  
 1 First  
 1ST Low (gear)  
 2ND Second (gear)  
 3RD Third (gear)  
 4TH Fourth (gear)  
 5TH Fifth (gear)



## **Special Tools**

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

## **Specifications**

<b>Standards and Service Limits .....</b>	<b>3-2</b>
<b>Design Specifications .....</b>	<b>3-15</b>
<b>Body Specifications .....</b>	<b>3-18</b>

# Standards and Service Limits

## Cylinder Head/Valve Train (F18A3, F20Z1, F20Z2 engines) — Section 6

		MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT	
Compression	250 min <sup>-1</sup> (rpm) and wide open throttle kPa (kg/cm <sup>2</sup> , psi)	Nominal Minimum Maximum variation		1,250 (12.5, 178) 950 (9.5, 135) 200 (2.0, 28)		
Cylinder head	Warpage Height			99.95 – 100.05 (3.935 – 3.939)	0.05 (0.002)	
Camshaft	End play			0.05 – 0.15 (0.002 – 0.006)	0.5 (0.02)	
	Camshaft-to-holder oil clearance			0.050 – 0.089 (0.0020 – 0.0035)	0.15 (0.006)	
	Total runout			0.03 (0.001) max.	0.04 (0.002)	
	Cam lobe height	F18A3 engine	IN		38.095 (1.4998)	—
			EX		38.387 (1.5113)	—
		F20Z1 engine	IN		38.741 (1.5252)	—
EX				38.972 (1.5343)	—	
	F20Z2 engine	IN		38.095 (1.4998)	—	
		EX		37.890 (1.4917)	—	
Valve	Valve clearance	IN		0.24 – 0.28 (0.009 – 0.011)	—	
		EX		0.28 – 0.32 (0.011 – 0.013)	—	
	Valve stem O.D.	IN		5.485 – 5.495 (0.2159 – 0.2163)	5.455 (0.2148)	
		EX		5.450 – 5.460 (0.2146 – 0.2150)	5.420 (0.2134)	
	Stem-to-guide clearance	IN		0.020 – 0.045 (0.0008 – 0.0018)	0.08 (0.003)	
		EX		0.055 – 0.080 (0.0022 – 0.0031)	0.12 (0.005)	
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		48.245 – 48.715 (1.8994 – 1.9179)	48.915 (1.9258)	
		EX		50.315 – 50.785 (1.9809 – 1.9994)	51.035 (2.0092)	
Valve spring	Free length	F18A3, F20Z1 engines	IN		53.42 (2.1031) *1, *2, *3	—
			EX		54.66 (2.1520) *1, *2, *3	—
		F20Z2 engine	IN		54.55 (2.1476) *1	—
					54.54 (2.1472) *2	—
					53.42 (2.1031) *3	—
				EX		59.88 (2.3575) *1, *2
				54.66 (2.1520) *3	—	
Valve guide	I.D.	IN		5.515 – 5.530 (0.2171 – 0.2177)	5.53 (0.218)	
		EX		5.515 – 5.530 (0.2171 – 0.2177)	5.53 (0.218)	
	Installed height	IN		23.75 – 24.25 (0.935 – 0.955)	—	
		EX		15.05 – 15.55 (0.593 – 0.612)	—	
Rocker arm	Arm-to-shaft clearance	IN		0.017 – 0.050 (0.0007 – 0.0020)	0.08 (0.003)	
		EX		0.018 – 0.054 (0.0007 – 0.0021)	0.08 (0.003)	

- \*1: CHUO HATSUJO manufactured valve spring.  
 \*2: NIHON HATSUJO manufactured valve spring.  
 \*3: SCHERDEL manufactured valve spring.

## Engine Block (F18A3, F20Z1, F20Z2 engines) — Section 7

		MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface		0.07 (0.003) max.	0.10 (0.004)
	Bore diameter	A or I	85.010 – 85.020 (3.3468 – 3.3472)	85.070 (3.3492)
		B or II	85.000 – 85.010 (3.3465 – 3.3468)	85.070 (3.3492)
	Bore taper		—	0.05 (0.002)
Reboring limit		—	0.5 (0.02)	
Piston	Skirt O.D. (at 21 mm (0.8 in) from bottom of skirt)	No Letter	84.980 – 84.990 (3.3457 – 3.3461)	84.970 (3.3453)
		Letter B	84.970 – 84.980 (3.3453 – 3.3457)	84.960 (3.3449)
	Clearance in cylinder		0.020 – 0.040 (0.0008 – 0.0016)	0.05 (0.002)
	Groove width (for ring)	Top	1.220 – 1.230 (0.0480 – 0.0484)	1.25 (0.049)
		Second	1.220 – 1.230 (0.0480 – 0.0484)	1.25 (0.049)
Oil		2.805 – 2.825 (0.1104 – 0.1112)	2.85 (0.112)	
Piston ring	Ring-to-groove clearance	Top	0.035 – 0.060 (0.0014 – 0.0024)	0.13 (0.005)
		Second	0.030 – 0.055 (0.0012 – 0.0022)	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 – 0.70 (0.008 – 0.028)	0.80 (0.031)	
Piston Pin	O.D.		21.994 – 22.000 (0.8659 – 0.8661)	—
	Pin-to-piston clearance		0.012 – 0.024 (0.0005 – 0.0009)	—
Connecting rod	Pin-to-rod interference		0.013 – 0.032 (0.0005 – 0.0013)	—
	Small end bore diameter		21.968 – 21.981 (0.8649 – 0.8654)	—
	Large end bore diameter		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. 2 journal	49.976 – 50.000 (1.9676 – 1.9685)	—
		No. 3 journal	49.972 – 49.996 (1.9674 – 1.9683)	—
		No. 1 and No. 4 journals	49.984 – 50.008 (1.9679 – 1.9688)	—
		No. 5 journal	49.988 – 50.012 (1.9680 – 1.9690)	—
		Rod journal diameter		44.976 – 45.000 (1.7707 – 1.7717)
	Taper		0.005 (0.0002) max.	0.006 (0.0002)
	Out-of-round		0.005 (0.0002) max.	0.006 (0.0002)
	End play		0.10 – 0.35 (0.004 – 0.014)	0.45 (0.018)
Total runout		0.03 (0.001)	0.04 (0.002)	
Bearings	Main bearing-to-journal oil clearance	No. 2 journal	0.021 – 0.045 (0.0008 – 0.0018)	0.050 (0.0020)
		No. 3 journal	0.025 – 0.049 (0.0010 – 0.0019)	0.055 (0.0022)
		No. 1 and No. 4 journals	0.013 – 0.037 (0.0005 – 0.0015)	0.050 (0.0020)
		No. 5 journal	0.009 – 0.033 (0.0004 – 0.0013)	0.040 (0.0016)
		Rod bearing-to-journal oil clearance		0.015 – 0.043 (0.0006 – 0.0017)
Balancer shaft	Journal diameter	No. 1 front journal	42.722 – 42.734 (1.6820 – 1.6824)	42.71 (1.681)
		No. 1 rear journal	20.938 – 20.950 (0.8243 – 0.8248)	20.92 (0.824)
		No. 2 front and rear journals	38.712 – 38.724 (1.5241 – 1.5246)	38.70 (1.524)
		No. 3 front and rear journals	34.722 – 34.734 (1.3670 – 1.3675)	34.71 (1.367)
	Journal taper		0.005 (0.0002)	—
	End play	Front	0.10 – 0.35 (0.004 – 0.014)	—
		Rear	0.06 – 0.18 (0.002 – 0.007)	—
	Total runout		0.02 (0.001) max.	0.03 (0.001)
	Shaft-to-bearing oil clearance	No. 1 rear journal	0.050 – 0.075 (0.0020 – 0.0030)	0.09 (0.004)
		No. 1 front, No. 3 front and rear journals	0.066 – 0.098 (0.0026 – 0.0039)	0.12 (0.005)
No. 2 front and rear journals		0.076 – 0.108 (0.0030 – 0.0043)	0.13 (0.005)	
Balancer shaft bearing	I.D.	No. 1 front journal	42.800 – 42.820 (1.6850 – 1.6858)	42.83 (1.686)
		No. 1 rear journal	21.000 – 21.013 (0.8268 – 0.8273)	21.02 (0.828)
		No. 2 front and rear journals	38.800 – 38.820 (1.5276 – 1.5283)	38.83 (1.529)
		No. 3 front and rear journals	34.800 – 34.820 (1.3701 – 1.3709)	34.83 (1.371)

# Standards and Service Limits

## Cylinder Head/Valve Train (H23A3 engine) — Section 6

		MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Compression	250 min <sup>-1</sup> (rpm) and wide open throttle kPa (kg/cm <sup>2</sup> , psi)	Nominal Minimum Maximum variation		1,250 (12.5, 178) 950 (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) 0.050 – 0.089 (0.0020 – 0.0035) *1 0.100 – 0.139 (0.0039 – 0.0055) *2 0.03 (0.001) max. 33.661 (1.3252) 33.725 (1.3278)	0.5 (0.02) 0.15 (0.006)*1 0.20 (0.008)*2 0.04 (0.002) — —
Valve	Valve clearance  Valve stem O.D.  Stem-to-guide clearance	IN EX IN EX IN EX		0.07 – 0.11 (0.003 – 0.004) *3 0.15 – 0.19 (0.006 – 0.007) *3 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 IN EX		1.25 – 1.55 (0.049 – 0.061) 1.25 – 1.55 (0.049 – 0.061) 39.365 – 39.835 (1.5498 – 1.5683) 39.165 – 39.635 (1.5419 – 1.5604)	2.0 (0.08) 2.0 (0.08) 40.085 (1.5781) 39.885 (1.5703)
Valve spring	Free length (Reference)	IN EX		47.14 (1.856) 47.14 (1.856)	— —
Valve guide	I.D.  Installed height	IN EX IN EX		6.61 – 6.63 (0.260 – 0.261) 6.61 – 6.63 (0.260 – 0.261) 13.25 – 13.75 (0.522 – 0.541) 13.75 – 14.25 (0.541 – 0.561)	6.70 (0.264) 6.70 (0.264) — —

\*1: Except exhaust No. 5 journal.

\*2: Exhaust No. 5 journal.

\*3: Measured between the camshaft and rocker arm.

## Engine Block (H23A3 engine) — Section 7

Unit of length: mm (in)

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface		0.07 (0.003) max.	0.10 (0.004)
	Bore diameter	A	87.010 – 87.020 (3.4256 – 3.4260)	87.070 (3.4279)
		B	87.000 – 87.010 (3.4252 – 3.4256)	87.070 (3.4279)
	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 )	No Letter	86.990 – 87.003 (3.4248 – 3.4253)	86.980 (3.4244)
		Letter B	86.980 – 86.993 (3.4244 – 3.4249)	86.970 (3.4240)
	Clearance in cylinder		0.007 – 0.030 (0.0003 – 0.0012)	0.04 (0.002)
	Groove width (for ring)	Top	1.230 – 1.245 (0.0484 – 0.0490)	1.265 (0.0498)
		Second	1.230 – 1.245 (0.0484 – 0.0490)	1.265 (0.0498)
Oil		2.805 – 2.825 (0.1104 – 0.1112)	2.85 (0.112)	
Piston ring	Ring-to-groove clearance	Top	0.045 – 0.075 (0.0018 – 0.0030)	0.13 (0.005)
		Second	0.040 – 0.070 (0.0016 – 0.0028)	0.13 (0.005)
	Ring end gap	Top	0.25 – 0.35 (0.010 – 0.014)	0.60 (0.024)
		Second	0.60 – 0.75 (0.024 – 0.030)	0.90 (0.035)
Oil		0.20 – 0.50 (0.008 – 0.020) *1 0.20 – 0.70 (0.008 – 0.028) *2	0.60 (0.024) *1 0.80 (0.031) *2	
Piston Pin	O.D.		21.994 – 22.000 (0.8659 – 0.8661)	—
	Pin-to-piston clearance		0.012 – 0.026 (0.0005 – 0.0010)	—
Connecting rod	Pin-to-rod interference		0.013 – 0.032 (0.0005 – 0.0013)	—
	Small end bore diameter		21.968 – 21.981 (0.8649 – 0.8654)	—
	Large end bore diameter	Nominal	51.00 (2.008)	—
	End play installed on crankshaft		0.15 – 0.30 (0.006 – 0.012)	0.40 (0.016)
Crankshaft	Main journal diameter	No. 2 journal	49.976 – 50.000 (1.9676 – 1.9685)	—
		No. 3 journal	49.972 – 49.996 (1.9674 – 1.9683)	—
		No. 1 and No. 4 journals	49.984 – 50.008 (1.9679 – 1.9688)	—
		No. 5 journal	49.988 – 50.012 (1.9680 – 1.9690)	—
	Rod journal diameter		47.976 – 48.000 (1.8888 – 1.8898)	—
	Taper		0.005 (0.0002) max.	0.006 (0.0002)
	Out-of-round		0.005 (0.0002) max.	0.006 (0.0002)
	End play		0.10 – 0.35 (0.004 – 0.014)	0.45 (0.018)
Total runout		0.03 (0.001) max.	0.04 (0.002)	
Bearings	Main bearing-to-journal oil clearance	No. 2 journal	0.021 – 0.045 (0.0008 – 0.0018)	0.050 (0.0020)
		No. 3 journal	0.025 – 0.049 (0.0010 – 0.0019)	0.055 (0.0022)
		No. 1 and No. 4 journals	0.013 – 0.037 (0.0005 – 0.0015)	0.050 (0.0020)
		No. 5 journal	0.009 – 0.033 (0.0004 – 0.0013)	0.040 (0.0016)
	Rod bearing-to-journal oil clearance		0.021 – 0.049 (0.0008 – 0.0019)	0.055 (0.0022)
Balancer shaft	Journal diameter	No. 1 front journal	42.722 – 42.734 (1.6820 – 1.6824)	42.71 (1.681)
		No. 1 rear journal	20.938 – 20.950 (0.8243 – 0.8248)	20.92 (0.824)
		No. 2 front and rear journals	38.712 – 38.724 (1.5241 – 1.5246)	38.70 (1.524)
		No. 3 front and rear journals	34.722 – 34.734 (1.3670 – 1.3675)	34.71 (1.367)
	Journal taper		0.005 (0.0002)	—
	End play	Front	0.10 – 0.35 (0.004 – 0.014)	—
		Rear	0.06 – 0.18 (0.002 – 0.007)	—
	Total runout		0.02 (0.001) max.	0.03 (0.001)
Shaft-to-bearing oil clearance				
No. 1 rear journal		0.050 – 0.075 (0.0020 – 0.0030)	0.09 (0.004)	
No. 1 front, No. 3 front and rear journals		0.066 – 0.098 (0.0026 – 0.0039)	0.12 (0.005)	
No. 2 front and rear journals		0.076 – 0.108 (0.0030 – 0.0043)	0.13 (0.005)	
Balancer shaft bearing	I.D.	No. 1 front journal	42.800 – 42.820 (1.6850 – 1.6858)	42.83 (1.686)
		No. 1 rear journal	21.000 – 21.013 (0.8268 – 0.8273)	21.02 (0.828)
		No. 2 front and rear journals	38.800 – 38.820 (1.5276 – 1.5283)	38.83 (1.529)
		No. 3 front and rear journals	34.800 – 34.820 (1.3701 – 1.3709)	34.83 (1.371)

\*1: TEIKOKU PISTON RING manufactured piston ring.

\*2: RIKEN manufactured piston ring.

# Standards and Service Limits

## Engine Lubrication — Section 8

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Engine oil	Capacity ℓ (US qt, Imp qt) F18A3, F20Z1, F20Z2 engines H23A3 engine	4.9 (5.2, 4.3) 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 5.4 (5.7, 4.8) for engine overhaul 4.3 (4.6, 3.8) for oil change, including filter 4.0 (4.2, 3.5) for oil change, without filter	
Oil pump	Inner-to-outer rotor clearance Pump housing-to-outer rotor clearance Pump housing-to-rotor axial clearance	0.02 – 0.16 (0.001 – 0.006) 0.10 – 0.19 (0.004 – 0.007) 0.02 – 0.07 (0.001 – 0.003)	0.20 (0.008) 0.21 (0.008) 0.12 (0.005)
Relief valve	Pressure setting at engine oil temp. 80°C (176°F) kPa (kg/cm <sup>2</sup> , psi) at idle at 3,000 min <sup>-1</sup> (rpm)	70 (0.7, 10) min. 350 (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) F20Z1 engine F18A3, F20Z2 engines H23A3 engine Reservoir capacity ℓ (US qt, Imp qt)	M/T: 6.4 (6.8, 5.6) for overhaul 2.7 (2.9, 2.4) for coolant change A/T: 6.3 (6.7, 5.5) for overhaul 2.6 (2.7, 2.3) for coolant change M/T: 6.4 (6.8, 5.6) for overhaul 2.7 (2.9, 2.4) for coolant change M/T: 7.6 (8.0, 6.7) for overhaul 3.3 (3.5, 2.9) for coolant change A/T: 7.5 (7.9, 6.6) for overhaul 3.2 (3.4, 2.8) for coolant change 0.6 (0.63, 0.53)
Radiator cap	Opening pressure kPa (kg/cm <sup>2</sup> , psi)	95 – 125 (0.95 – 1.25, 14 – 18)
Thermostat	Start to open °C (°F) Fully open °C (°F) Valve lift at fully open	76 – 80 (169 – 176) 90 (194) 8.0 (0.31) min.
Cooling fan	Thermoswitch "ON" temperature °C (°F) Thermoswitch "OFF" temperature °C (°F) Fan timer "ON" temperature °C (°F) Fan timer "OFF" temperature °C (°F)	90 – 96 (194 – 205) Subtract 2 – 7 (4 – 13) from actual "ON" temperature 103 – 109 (217 – 228) Subtract 2 – 5 (4 – 9) from actual "ON" temperature

**Fuel and Emissions — Section 11**

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Fuel pump	Displacement in 10 seconds m <sup>l</sup> (US oz, Imp oz)	230 (7.8, 8.1)	110 (3.7, 3.9)
	Relief valve opening pressure kPa (kg/cm <sup>2</sup> , psi)	450 – 600 (4.5 – 6.0, 64 – 85)	
Pressure regulator	Pressure with regulator vacuum hose disconnected kPa (kg/cm <sup>2</sup> , psi)	280 – 330 (2.8 – 3.3, 40 – 47)	
Fuel tank	Capacity ℓ (US gal, Imp gal)	65 (17.2, 14.3)	
Engine	Fast idle speed min <sup>-1</sup> (rpm)	1,400 ± 200	
	Idle speed min <sup>-1</sup> (rpm) (with headlights and cooling fan off)	770 ± 50 (M/T: neutral) 770 ± 50 (A/T: <b>N</b> ) or <b>P</b> position)	
	Idle CO %	0.2 % max.	

**Clutch — Section 12**

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Clutch pedal	Clutch pedal height to the floor	210 (8.27)	_____
	Stroke at pedal	142 (5.6)	_____
	Total clutch pedal free play	9 – 15 (0.4 – 0.6)	_____
	Disengagement height to the floor to the carpet	90 (3.5) min. 80 (3.1) min.	_____
Flywheel	Clutch surface runout	0.05 (0.002) max.	0.15 (0.006)
Clutch disc	Rivet head depth	1.4 (0.06) min.	0.2 (0.01)
	Surface runout	0.6 (0.02) max.	1.0 (0.04)
	Thickness	8.5 – 9.2 (0.33 – 0.36)	6.5 (0.26)
Pressure plate	Diaphragm spring finger alignment	0.6 (0.02) max.	0.8 (0.03)
	Warpage	0.03 (0.001) max.	0.15 (0.006)

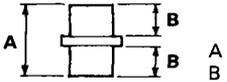
**Manual Transmission — Section 13**

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission oil	Capacity ℓ (US qt, Imp qt)	1.9 (2.0, 1.7) for oil change 2.0 (2.1, 1.8) for overhaul	
Mainshaft	End play	0.10 – 0.16 (0.004 – 0.006)	Adjust with a shim.
	Diameter of ball bearing contact area C	27.977 – 27.990 (1.1015 – 1.1020)	27.93 (1.100)
	Diameter of needle bearing contact area B	37.984 – 38.000 (1.4954 – 1.4961)	37.93 (1.493)
	Diameter of ball bearing contact area A	27.987 – 28.000 (1.1018 – 1.1024)	27.94 (1.100)
	Runout	0.02 (0.001) max.	0.05 (0.002)
Mainshaft 3rd and 4th gears	I.D.	43.009 – 43.025 (1.6933 – 1.6939)	43.080 (1.6961)
	End play	0.06 – 0.21 (0.002 – 0.008)	0.30 (0.012)
	Thickness 3rd gear 4th gear	32.42 – 32.47 (1.276 – 1.278) 30.92 – 30.97 (1.217 – 1.219)	32.3 (1.27) 30.8 (1.21)
Mainshaft 5th gear	I.D.	43.009 – 43.025 (1.6933 – 1.6939)	43.080 (1.6961)
	End play	0.06 – 0.21 (0.002 – 0.008)	0.30 (0.012)
	Thickness	30.92 – 30.97 (1.217 – 1.219)	30.8 (1.21)
Countershaft	Diameter of needle bearing contact area A	38.000 – 38.015 (1.4961 – 1.4967)	37.95 (1.494)
	Diameter of ball bearing and needle bearing contact area C	24.987 – 25.000 (0.9837 – 0.9843)	24.94 (0.982)
	Diameter of 1st gear contact area B	39.984 – 40.000 (1.5742 – 1.5748)	39.93 (1.572)
	Runout	0.02 (0.001) max.	0.05 (0.002)
Countershaft 1st gear	I.D.	46.009 – 46.025 (1.8114 – 1.8120)	46.08 (1.814)
	End play	0.06 – 0.23 (0.002 – 0.009)	0.23 (0.009)
Countershaft 2nd gear	I.D.	47.009 – 47.025 (1.8507 – 1.8514)	47.08 (1.854)
	End play Thickness	0.05 – 0.10 (0.002 – 0.004) 28.92 – 28.97 (1.139 – 1.141)	0.18 (0.007) _____

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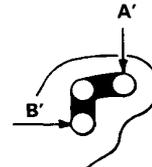
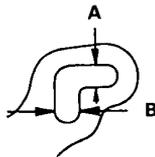
# Standards and Service Limits

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

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
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) 29.02 – 29.04 (1.1425 – 1.1433)	36.50 (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) 56.45 – 56.55 (2.222 – 2.226) 26.03 – 26.08 (1.025 – 1.027)	31.06 (1.223) 37.94 (1.494) — 26.01 (1.024)
Reverse idler gear	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) 0.160 (0.0063)
Synchro ring	Ring-to-gear clearance (ring pushed against gear)	0.85 – 1.10 (0.033 – 0.043)	0.40 (0.016)
Double cone synchro	Clearance (ring pushed against gear) Outer synchro ring-to-synchro cone Synchro cone-to-gear Outer synchro ring-to-gear	0.5 (0.02) min. 0.5 (0.02) min. 0.95 – 1.68 (0.037 – 0.066)	0.3 (0.01) 0.3 (0.01) 0.6 (0.02)
Shift fork	Finger thickness Fork-to-synchro sleeve clearance	6.2 – 6.4 (0.24 – 0.25) 0.35 – 0.65 (0.014 – 0.026)	— 1.0 (0.039)
Reverse shift fork	Pawl groove width Fork-to-reverse idler gear clearance Groove width*1 Fork-to-5th/reverse shift shaft clearance*2	13.0 – 13.3 (0.51 – 0.52) 0.5 – 1.1 (0.02 – 0.04) 7.05 – 7.25 (0.278 – 0.285) 7.4 – 7.7 (0.29 – 0.30) 0.05 – 0.35 (0.002 – 0.014) 0.4 – 0.8 (0.02 – 0.03)	— 1.8 (0.07) — — 0.5 (0.02) 1.0 (0.04)
Shift arm	I.D. Shift arm-to-shaft clearance Shift fork diameter at contact area Shift-arm-to-shift fork shaft clearance	15.973 – 16.000 (0.6289 – 0.6299) 0.005 – 0.059 (0.0002 – 0.0023) 12.9 – 13.0 (0.508 – 0.512) 0.2 – 0.5 (0.008 – 0.020)	— — — 0.6 (0.024)
Select lever	Shaft outer diameter Shift arm cover clearance	15.941 – 15.968 (0.6276 – 0.6287) 0.032 – 0.102 (0.0013 – 0.0040)	— —
Shift lever	O.D. Transmission housing clearance	15.941 – 15.968 (0.6276 – 0.6287) 0.021 – 0.041 (0.0008 – 0.0016)	— —
Interlock	Bore diameter Shift arm clearance	16.00 – 16.05 (0.630 – 0.632) 0.032 – 0.109 (0.0013 – 0.0043)	— —

\*1: Measuring points

\*2: Measuring points



**Automatic Transmission — Section 14**

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT	
Transmission fluid	Capacity ℓ (US qt, Imp qt)	6.0 (6.4, 5.3) for overhaul 2.4 (2.6, 2.1) for fluid change		
Hydraulic pressure (F20Z1 engine)  kPa (kg/cm <sup>2</sup> , psi)	Line pressure at 2,000 min <sup>-1</sup> (rpm) ( <b>N</b> or <b>P</b> position)	800 (8.0, 114) throttle fully-closed   850 (8.5, 121) throttle more than 3/16 open	750 (7.5, 107) throttle more than 3/16 open	
	4th clutch pressure at 2,000 min <sup>-1</sup> (rpm) ( <b>D4</b> position)	530 (5.3, 75) throttle fully-closed   850 (8.5, 121) throttle more than 3/16 open	480 (4.8, 68) throttle fully-closed   750 (7.5, 107) throttle more than 3/16 open	
	3rd and 2nd clutch pressure at 2,000 min <sup>-1</sup> (rpm) ( <b>D4</b> position)	500 (5.0, 71) throttle fully-closed   850 (8.5, 121) throttle more than 3/16 open	450 (4.5, 64) throttle fully-closed   750 (7.5, 107) throttle more than 3/16 open	
	2nd clutch pressure at 2,000 min <sup>-1</sup> (rpm) ( <b>2</b> position)	800 – 850 (8.0 – 8.5, 114 – 121)	750 (7.5, 107)	
	1st and 1st-hold clutch pressure at 2,000 min <sup>-1</sup> (rpm) ( <b>1</b> position)	800 – 850 (8.0 – 8.5, 114 – 121)	750 (7.5, 107)	
	Throttle B pressure	Throttle fully closed Throttle fully open	0 (0, 0) 800 – 850 (8.0 – 8.5, 114 – 121)	— 750 (7.5, 107)
	Hydraulic pressure (H23A3 engine)  kPa (kg/cm <sup>2</sup> , psi)	Line pressure at 2,000 min <sup>-1</sup> (rpm) ( <b>N</b> or <b>P</b> position)	850 (8.5, 121) throttle fully-closed   900 (9.0, 128) throttle more than 3/16 open	800 (8.0, 114) throttle more than 3/16 open
4th clutch pressure at 2,000 min <sup>-1</sup> (rpm) ( <b>D4</b> position)		530 (5.3, 75) throttle fully-closed   900 (9.0, 128) throttle more than 3/16 open	480 (4.8, 68) throttle fully-closed   800 (8.0, 114) throttle more than 3/16 open	
3rd and 2nd clutch pressure at 2,000 min <sup>-1</sup> (rpm) ( <b>D4</b> position)		500 (5.0, 71) throttle fully-closed   900 (9.0, 128) throttle more than 3/16 open	450 (4.5, 64) throttle fully-closed   800 (8.0, 114) throttle more than 3/16 open	
2nd clutch pressure at 2,000 min <sup>-1</sup> (rpm) ( <b>2</b> position)		850 – 900 (8.5 – 9.0, 121 – 128)	800 (8.0, 114)	
1st and 1st-hold clutch pressure at 2,000 min <sup>-1</sup> (rpm) ( <b>1</b> position)		850 – 900 (8.5 – 9.0, 121 – 128)	800 (8.0, 114)	
Throttle B pressure		Throttle fully closed Throttle fully open	0 (0, 0) 850 – 900 (8.5 – 9.0, 121 – 128)	— 800 (8.0, 114)
Stall speed min <sup>-1</sup> (rpm) (Check with car on level ground)	F20Z1 engine H23A3 engine	2500 2700	2350 – 2650 2550 – 2850	

(cont'd)

# Standards and Service Limits

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

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Clutch	Clutch initial clearance 1st-hold 1st, 2nd 3rd, 4th Clutch return spring free length 1st, 2nd, 3rd, 4th Clutch disc thickness Clutch plate thickness 1st 2nd, F20Z1 engine H23A3 engine 3rd, 4th 1st-hold	0.80 – 1.00 (0.031 – 0.039) 0.65 – 0.85 (0.026 – 0.033) 0.4 – 0.6 (0.016 – 0.024) 33.5 (1.32) 1.88 – 2.00 (0.074 – 0.079) 1.95 – 2.05 (0.077 – 0.081) 2.55 – 2.65 (0.100 – 0.104) 1.95 – 2.05 (0.077 – 0.081) 2.25 – 2.35 (0.089 – 0.093) 1.55 – 1.65 (0.061 – 0.065)	— — — 31.5 (1.24) Until grooves worn out. Discoloration ↑ ↓ Discoloration
	Clutch end plate thickness Mark 1 Mark 2 Mark 3 Mark 4 Mark 5 Mark 6 Mark 7 Mark 8 Mark 9	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)	Discoloration ↑ ↓ Discoloration
Valve body	Stator shaft needle bearing contact I.D. Torque converter side Oil pump side Oil pump gear side clearance Oil pump gear-to-body clearance Oil pump driven gear I.D. Oil pump shaft O.D.	27.000 – 27.021 (1.0630 – 1.0638) 29.000 – 29.013 (1.1417 – 1.1422) 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)	Wear or damage — 0.07 (0.003) — — Wear or damage Wear or damage
Shifting device, parking brake and throttle control system	Reverse shift fork finger thickness Parking brake ratchet pawl Parking brake gear Throttle cam stopper height	5.90 – 6.00 (0.232 – 0.236) — — 17.0 – 17.1 (0.669 – 0.673)	5.40 (0.213) Wear or other defect 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)
Regulator valve body	Sealing ring contact I.D.	35.000 – 35.025 (1.3780 – 1.3789)	35.05 (1.3799)
Accumulator body	Sealing ring contact I.D.	32.000 – 32.025 (1.2598 – 1.2608)	32.050 (1.2618)
Stator shaft	Sealing ring contact I.D.	29.000 – 29.013 (1.1417 – 1.1422)	29.050 (1.1437)
Transmission	Diameter of needle bearing contact area On mainshaft of stator shaft On mainshaft of 3rd gear collar On mainshaft of 4th gear collar On countershaft of 1st gear collar On countershaft of 4th gear collar On countershaft of parking gear On countershaft of reverse gear On secondary shaft of 1st gear On secondary shaft of 2nd gear On reverse idler gear shaft Inside diameter Mainshaft 3rd gear Mainshaft 4th gear Countershaft 1st gear Countershaft 4th gear Countershaft reverse gear Countershaft idler gear Secondary shaft 1st gear Secondary shaft 2nd gear Reverse idler gear shaft holder	22.984 – 23.000 (0.9049 – 0.9055) 45.984 – 46.000 (1.8104 – 1.8110) 31.984 – 32.000 (1.2592 – 1.2598) 40.984 – 41.000 (1.6135 – 1.6142) 31.975 – 31.991 (1.2589 – 1.2595) 39.984 – 40.000 (1.5742 – 1.5748) 35.979 – 36.000 (1.4165 – 1.4173) 31.975 – 31.991 (1.2589 – 1.2595) 31.975 – 31.991 (1.2589 – 1.2595) 14.990 – 15.000 (0.5902 – 0.5906) 52.000 – 52.019 (2.0472 – 2.0480) 38.005 – 38.021 (1.4963 – 1.4969) 47.000 – 47.016 (1.8504 – 1.8510) 38.000 – 38.016 (1.4961 – 1.4967) 42.000 – 42.016 (1.6535 – 1.6542) 48.000 – 48.016 (1.8898 – 1.8904) 36.000 – 36.016 (1.4173 – 1.4179) 37.000 – 37.016 (1.4567 – 1.4573) 14.800 – 14.824 (0.5827 – 0.5836)	Wear or damage ↑ ↓ Wear or damage

**Automatic Transmission — Section 14**

	MEASUREMENT	STANDARD (NEW)				SERVICE LIMIT
		Wire Dia.	O.D.	Free Length	No. of Coils	
Transmission (cont'd)	Mainshaft 3rd gear collar length	19.50 – 19.55 (0.768 – 0.770)				Wear or damage
	Mainshaft 4th gear collar length	47.50 – 47.55 (1.870 – 1.872)				Wear or damage
	Countershaft 1st gear collar length	27.50 – 27.55 ( 1.083 – 1.085)				Wear or damage
	Thrust washer thickness					
	Countershaft 1st gear	1.45 – 1.50 (0.057 – 0.059)				Wear or damage
	Countershaft idler gear	3.45 – 3.55 (0.136 – 0.140)				Wear or damage
	Secondary shaft 2nd gear	4.35 – 4.45 (0.171 – 0.175)				Wear or damage
	Countershaft parking gear length	25.030 – 25.048 (0.9854 – 0.9861)				Wear or damage
	Secondary shaft 1st gear distance collar length	4.95 – 5.00 (0.195 – 0.197)				Wear or damage
	Secondary shaft 2nd gear spline washer thickness 35 x 53 mm	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)				— — — — — — — — —
	MEASUREMENT	STANDARD (NEW)				
Spring	Regulator valve spring A					
	F20Z1 engine	1.8 (0.071)	14.7 (0.579)	85.4 (3.362)	16.5	
	H23A3 engine	1.8 (0.071)	14.7 (0.579)	87.8 (3.457)	16.5	
	Regulator valve spring B	1.8 (0.071)	9.6 (0.378)	44.0 (1.732)	12.7	
	Stator reaction spring	4.5 (0.177)	35.4 (1.394)	30.3 (1.193)	1.92	
	Torque converter check valve spring	1.1 (0.043)	8.4 (0.331)	38.2 (1.504)	14.0	
	Relief valve spring	1.0 (0.039)	8.4 (0.331)	39.1 (1.539)	15.1	
	Cooler relief valve spring	1.0 (0.039)	8.4 (0.331)	46.8 (1.843)	10.8	
	2nd orifice control valve spring	0.6 (0.024)	6.6 (0.260)	58.3 (2.295)	15.8	
	Orifice control valve spring	0.8 (0.031)	6.6 (0.260)	52.5 (2.067)	33.0	
	4th exhaust valve spring	0.9 (0.035)	7.1 (0.280)	60.8 (2.394)	28.9	
	Throttle valve B adjusting spring	0.8 (0.031)	6.2 (0.244)	30.0 (1.181)	8.0	
	Throttle valve B spring	1.4 (0.055)	8.5 (0.335)	41.5 (1.634)	10.5	
		1.4 (0.055)	8.5 (0.335)	41.5 (1.634)	11.2	
		1.4 (0.055)	8.5 (0.335)	41.6 (1.638)	12.4	
	1-2 shift valve spring	1.0 (0.039)	8.6 (0.339)	41.3 (1.626)	16.9	
	2-3/3-4 shift valve spring	0.9 (0.035)	7.6 (0.299)	57.0 (2.244)	26.8	
	1st-hold accumulator spring	4.0 (0.157)	25.0 (0.984)	64.7 (2.547)	7.3	
	1st accumulator spring	1.8 (0.071)	16.3 (0.642)	115.4 (4.543)	18.6	
	4th accumulator spring	2.9 (0.114)	22.0 (0.866)	90.1 (3.547)	10.9	
	2nd accumulator spring	3.5 (0.138)	22.0 (0.866)	77.1 (3.035)	10.0	
3rd accumulator spring	2.8 (0.110)	17.5 (0.689)	94.2 (3.709)	16.1		
Lock-up shift valve spring	0.9 (0.035)	7.6 (0.299)	73.7 (2.902)	32.0		
Lock-up timing valve spring	0.8 (0.031)	6.6 (0.260)	51.1 (2.012)	14.7		
Servo control valve spring	1.0 (0.039)	8.1 (0.319)	52.6 (2.071)	22.4		
CPC valve spring	1.4 (0.055)	9.4 (0.370)	33.0 (1.299)	10.5		
Modulator valve spring	1.4 (0.055)	9.4 (0.370)	33.0 (1.299)	10.5		
Lock-up control valve spring	0.7 (0.028)	6.6 (0.260)	38.0 (1.496)	14.1		
3rd kick-down valve spring	1.0 (0.039)	7.6 (0.299)	48.3 (1.902)	15.6		
3-2 kick-down valve spring	1.2 (0.047)	7.1 (0.280)	46.9 (1.846)	20.6		

# Standards and Service Limits

## Differential (Manual 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 shaft clearance	0.017 – 0.047 (0.0007 – 0.0019)	0.10 (0.004)
	Driveshaft contact area 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)
		R L	0.15 (0.006)
Differential pinion gear	Backlash	0.05 – 0.15 (0.002 – 0.006)	Adjust with a shim
	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)
Tapered roller bearing preload	Starting torque N·m (kg·cm, lb·in)	1.4 – 2.6 (14 – 26, 12 – 23)	Adjust with a shim

## 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 shaft clearance	0.013 – 0.047 (0.0005 – 0.0019)	0.10 (0.004)
	Driveshaft contact area 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	0.08 – 0.15 (0.003 – 0.006)	Adjust with a shim
	I.D.	18.042 – 18.066 (0.7103 – 0.7113)	—
	Pinion gear-to-pinion shaft clearance	0.055 – 0.095 (0.0022 – 0.0037)	0.12 (0.005)
Tapered roller bearing preload	Starting torque	New bearing 2.8 – 4.0 (28 – 40, 24 – 35)	Adjust with a shim
	N·m (kg·cm, lb·in)	Reused bearing 2.5 – 3.7 (25 – 37, 22 – 32)	

## Steering — Section 17

	MEASUREMENT	STANDARD (NEW)
Steering wheel	Rotational play at steering wheel circumference	0 – 10 (0 – 0.4)
Gearbox	Angle of rack-guide-screw loosened from locked position	20° <sup>+5°</sup> / <sub>0</sub>
Pump	Pump pressure with shut-off valve closed kPa (kg/cm <sup>2</sup> , psi)	8,000 – 9,000 (80 – 90, 1,138 – 1,280)
Power steering fluid	Recommended fluid	Honda power steering fluid-V
	Fluid capacity ℓ (US qt, Imp qt)	System 1.8 (1.9, 1.6) Reservoir 0.5 (0.5, 0.4)
Power steering belt*	Deflection with 100 N (10 kg, 22 lbs) between pulleys	12.5 – 16.0 (0.49 – 0.63) with used belt 9.5 – 11.5 (0.37 – 0.45) with new belt
	Belt tension N (kg, lbs) Measured with belt tension gauge	350 – 500 (35 – 50, 77 – 110) with used belt 700 – 900 (70 – 90, 154 – 198) 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)	SERVICE LIMIT
Wheel alignment	Camber	Front	0°00' ± 1°	
		Rear	-0°30' ± 30'	
	Caster	Front	3°00' ± 1°	
		Rear	0 ± 3.0 (0 ± 0.12)	
Total toe	Front	IN 2.0 ± 2.0 (0.08 ± 0.08)		
Front wheel turning angle	Inward wheel	39°00' ± 2°		
	Outward wheel	30°00'		
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)
Wheel bearing	End play	Front	0 - 0.05 (0 - 0.002)	—
		Rear	0 - 0.05 (0 - 0.002)	—

**Brakes — Section 19**

		MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT	
Parking brake lever		Play in stroke 200 N (20 kg, 44 lbs) lever force	To be locked when pulled 7 - 11 notches	—	
Foot brake pedal		Pedal height (with floor mat removed)	M/T 190 (7.5) A/T 195 (7.7)	—	
		Free play	1 - 5 (1/16 - 13/64)	—	
Master cylinder		Piston-to-pushrod clearance	0 - 0.04 (0 - 0.016)	—	
Disc brake	Disc thickness	Front	23.0 (0.91)	21.0 (0.83)	
		Rear	10.0 (0.39)	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	1.8 ℓ and 2.0 ℓ M/T	12.5 (0.49)	1.6 (0.06)
		Rear	2.0 ℓ A/T and 2.3 ℓ	11.0 (0.43)	1.6 (0.06)
				9.0 (0.35)	1.6 (0.06)
		Characteristics	Vacuum [mm (in) Hg]	Pedal Force kg (lbs)	Line Pressure kPa (kg/cm <sup>2</sup> , psi)
		Without ABS	0 (0)	20 (44)	920 (9.4, 130) minimum
	300 (11.8)		20 (44)	5,500 (56, 800) minimum	
	500 (19.7)		20 (44)	8,500 (87, 1,200) minimum	
	With ABS	0 (0)	20 (44)	810 (8.3, 120) minimum	
		300 (11.8)	20 (44)	6,100 (62, 880) minimum	
		500 (19.7)	20 (44)	8,200 (83.2, 1,200) minimum	

# Standards and Service Limits

Unit of length: mm (in)

## Air Conditioning — Section 22

	MEASUREMENT	STANDARD (NEW)	
Air conditioning system	Lubricant type: ND-OIL8 P/N38899 – PR7 – 003 (For Refrigerant HFC-134a (R-134a))		
	Lubricant capacity m <sup>l</sup> (fl oz, Imp oz)	Condenser Evaporator Line or hose Receiver	10 – 20 (1/3 – 2/3, 0.4 – 0.7) 20 – 30 (2/3 – 1, 0.7 – 1.1) 10 (1/3, 0.4) 10 (1/3, 0.4)
Compressor	Lubricant type: ND-OIL8 P/N38899 – PR7 – 003 (For Refrigerant HFC-134a (R-134a))		
	Lubricant capacity m <sup>l</sup> (fl oz, Imp oz)		160 <sup>+15</sup> <sub>0</sub> (5-1/3 <sup>+1/2</sup> , 5.6 <sup>+0.5</sup> )
	Stator coil resistance at 20°C (68°F) Ω Pulley-to-pressure plate clearance		3.6 ± 0.2 0.5 ± 0.15 (0.020 ± 0.006)
Compressor belt*	Deflection with 100 N (10 kg, 22 lbs) between the pulleys		10.0 – 12.0 (0.39 – 0.47) with used belt 4.5 – 7.0 (0.18 – 0.28) with new belt
	Belt tension N (kg, lbs) Measured with belt tension gauge		450 – 600 (45 – 60, 99 – 132) with used belt 950 – 1,150 (95 – 115, 209 – 254) with new belt

## Electrical — Section 23

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT	
Ignition coil	Rated voltage V		12	
	Primary winding resistance Ω at 20°C (68°F)		0.6 – 0.8	
	Secondary winding resistance kΩ at 20°C (68°F)		13 – 19	
Spark Plug	Type		See section 23 (Supplement 93 code No. 62SN720)	
	Gap		1.0 – 1.1 (0.039 – 0.043)	
Ignition timing	At idle ° BTDC		15 ± 2 (Red)	
Alternator belt*	Without A/C	Deflection with 100 N (10 kg, 22 lbs) between pulleys		10 – 12 (0.39 – 0.47) with used belt 8.5 – 11 (0.33 – 0.43) with new belt
		Belt tension N (kg, lbs) Measured with belt tension gauge		300 – 450 (30 – 45, 66 – 99) with used belt 450 – 650 (45 – 65, 99 – 143) with new belt
	With A/C	Deflection with 100 N (10 kg, 22 lbs) between pulleys		10 – 12 (0.39 – 0.47) with used belt 4.5 – 7 (0.18 – 0.28) with new belt
		Belt tension N (kg, lbs) Measured with belt tension gauge		450 – 600 (45 – 60, 99 – 132) with used belt 950 – 1,150 (95 – 115, 209 – 254) with new belt
Alternator	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
	Output 13.5 V at hot A		70/80	—
	Coil resistance (rotor) Ω		2.8 – 3.0	—
	Slip ring O.D.		14.4 (0.57)	14.0 (0.55)
	Brush length		10.5 (0.41)	5.5 (0.22)
	Brush spring tension g (oz)		300 – 360 (10.6 – 12.7)	—
Starter motor	Type		Spur gear reduction, permanent magnet	
	Mica depth		0.4 – 0.5 (0.016 – 0.020)	0.15 (0.006)
	Commutator runout		0 – 0.02 (0 – 0.0008)	0.05 (0.002)
	Commutator O.D.		28.0 – 28.1 (1.102 – 1.106)	27.5 (1.08)
	Brush length		15.8 – 16.2 (0.62 – 0.64)	10.0 (0.39)
	Brush spring tension (new) N (kg, lbs)		16 – 18 (1.6 – 1.8, 3.5 – 4.0)	—

\* 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	4,675 mm	184.1 in		
	Overall Width	1,715 mm	67.5 in		
	Overall Height	1,380 mm	54.3 in		
	Wheelbase	2,720 mm	107.1 in		
	Track (Front/Rear)	1,475/1,480 mm	58.1/58.3 in		
	Ground Clearance	155 mm	6.1 in		
	Seating Capacity	Five			
WEIGHT	Curb Weight				
	1.8i S M/T (KG model)	1,255 kg	2,766 lbs	Without ABS	
	1.8i ES M/T (KG model)	1,345 kg	2,965 lbs	With ABS	
	2.0i M/T (KG model)	1,240 kg	2,733 lbs	Without ABS	
	2.0i M/T (KG, KE models)	1,280 kg	2,822 lbs	With ABS	
	2.0i S M/T (KG model)	1,255 kg	2,766 lbs	Without ABS	
	2.0i S M/T (KS model)	1,260 kg	2,778 lbs	Without ABS	
	2.0i S M/T (KG, KE models)	1,295 kg	2,855 lbs	With ABS	
	2.0i S A/T (KG model)	1,325 kg	2,921 lbs		
	2.0i LS M/T (KG model) F20Z2 engine	1,270 kg	2,799 lbs	Without ABS	
	2.0i LS M/T (KG, KE models) F20Z2 engine	1,300 kg	2,866 lbs	With ABS	
	2.0i LS M/T (KG, KE models) F20Z1 engine	1,285 kg	2,833 lbs		
	2.0i LS M/T (KS model) F20Z1 engine	1,285 kg	2,833 lbs		
	2.0i LS A/T (KG, KE models) F20Z1 engine	1,330 kg	2,932 lbs		
	2.0i LS A/T (KS model) F20Z1 engine	1,320 kg	2,910 lbs		
	2.0i ES M/T (KG, KE models)	1,345 kg	2,965 lbs		
	2.0i ES A/T (KG, KE models)	1,375 kg	3,031 lbs		
	2.3i SR M/T (KG, KE models)	1,355 kg	2,987 lbs		
	2.3i SR M/T (KS model)	1,325 kg	2,921 lbs		
	2.3i SR A/T (KE model)	1,377 kg	3,036 lbs		
	Weight Distributions (Front/Rear)				
	1.8i S M/T (KG model)	755/500 kg	1,664/1,102 lbs	Without ABS	
	1.8i ES M/T (KG model)	820/525 kg	1,808/1,157 lbs	With ABS	
	2.0i M/T (KG model)	745/495 kg	1,642/1,091 lbs	Without ABS	
	2.0i M/T (KG, KE models)	770/510 kg	1,698/1,124 lbs	With ABS	
	2.0i S M/T (KG model)	755/500 kg	1,664/1,102 lbs	Without ABS	
	2.0i S M/T (KS model)	760/500 kg	1,676/1,102 lbs	Without ABS	
	2.0i S M/T (KG, KE models)	780/515 kg	1,720/1,135 lbs	With ABS	
	2.0i S A/T (KG model)	810/515 kg	1,786/1,135 lbs		
	2.0i LS M/T (KG model) F20Z2 engine	755/515 kg	1,664/1,135 lbs	Without ABS	
	2.0i LS M/T (KG, KE models) F20Z2 engine	780/520 kg	1,720/1,146 lbs	With ABS	
	2.0i LS M/T (KG, KE models) F20Z1 engine	770/515 kg	1,698/1,135 lbs		
	2.0i LS M/T (KS model) F20Z1 engine	775/510 kg	1,709/1,124 lbs		
	2.0i LS A/T (KG, KE models) F20Z1 engine	810/520 kg	1,786/1,146 lbs		
	2.0i LS A/T (KS model) F20Z1 engine	810/510 kg	1,786/1,124 lbs		
	2.0i ES M/T (KG, KE models)	820/525 kg	1,808/1,157 lbs		
	2.0i ES A/T (KG, KE models)	850/525 kg	1,874/1,157 lbs		
	2.3i SR M/T (KG, KE models)	830/525 kg	1,830/1,157 lbs		
	2.3i SR M/T (KS model)	805/520 kg	1,775/1,146 lbs		
	2.3i SR A/T (KE model)	854/523 kg	1,883/1,153 lbs		
	Max. Permissible Weight (European)				
	1.8 ℓ, 2.0 ℓ M/T	1,820 kg	4,012 lbs		
	2.0 ℓ A/T	1,880 kg	4,145 lbs		
2.3 ℓ M/T and A/T	1,880 kg	4,145 lbs			
ENGINE	Type	F18A3, F20Z1, F20Z2 engines	Water-cooled, 4-stroke SOHC gasoline engine		
		H23A3 engine	Water-cooled, 4-stroke DOHC gasoline engine		
	Cylinder Arrangement		4-cylinders Inline, transverse		
	Bore and Stroke	F18A3 engine	85.0 x 81.5 mm	3.35 x 3.21 in	
		F20Z1, F20Z2 engines	85.0 x 88.0 mm	3.35 x 3.46 in	
		H23A3 engine	87.0 x 95.0 mm	3.42 x 3.74 in	
	Displacement	F18A3 engine	1,850 cm <sup>3</sup> (mℓ)	112.9 cu-in	
		F20Z1, F20Z2 engines	1,997 cm <sup>3</sup> (mℓ)	121.8 cu-in	
		H23A3 engine	2,259 cm <sup>3</sup> (mℓ)	137.8 cu-in	
	Compression Ratio	F18A3 engine	8.9 : 1		
	F20Z1 engine	9.5 : 1			
	F20Z2 engine	9.0 : 1			
	H23A3 engine	9.8 : 1			
Valve Train	F18A3, F20Z1, F20Z2 engines	Belt driven, 4 valves per cylinder, single overhead camshaft			
	H23A3 engine	Belt driven, 4 valves per cylinder, double overhead camshaft			

(cont'd)

# Design Specifications

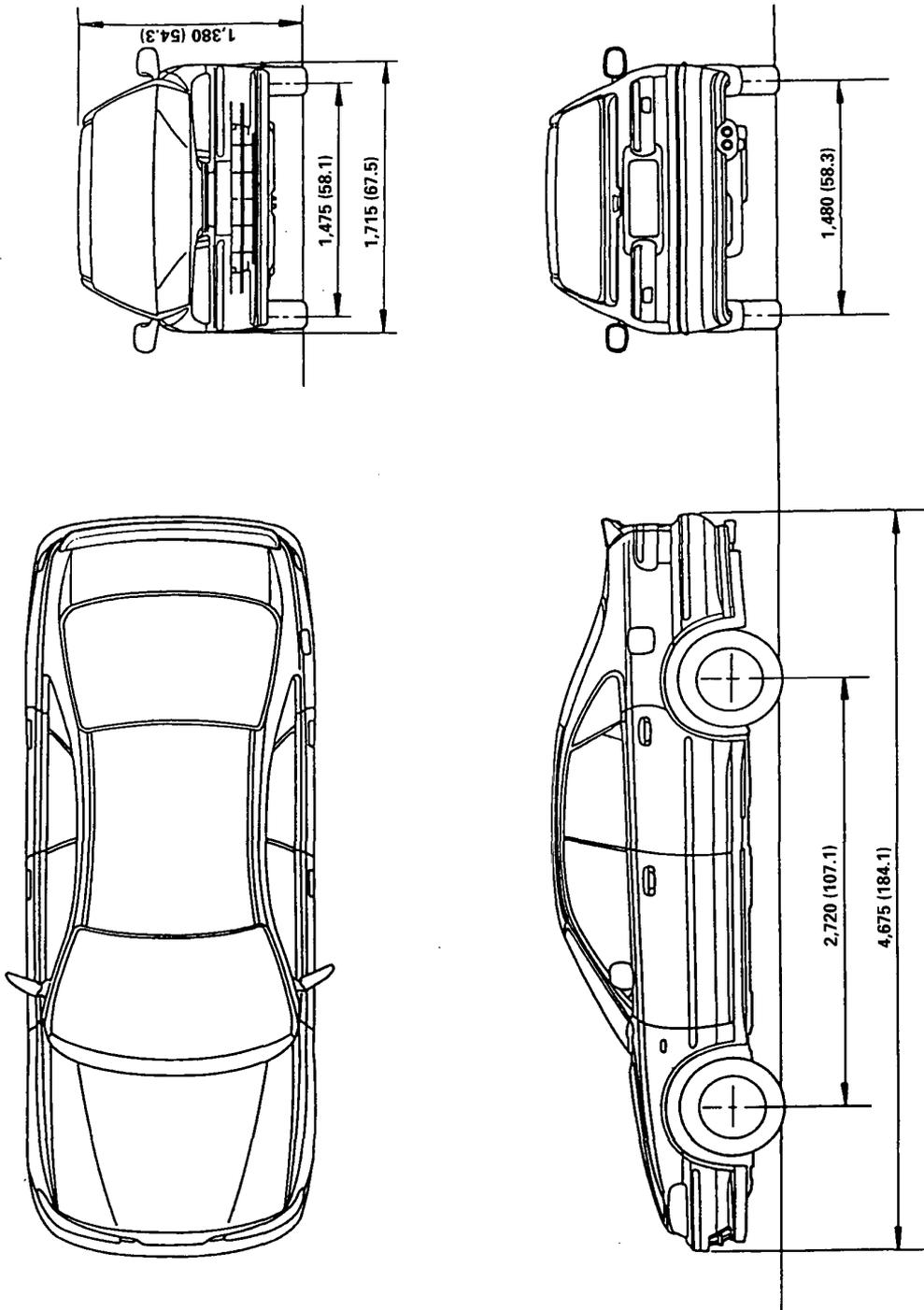
(cont'd)

	ITEM		METRIC		ENGLISH		NOTES
ENGINE (cont'd)	Lubrication System Oil Pump Displacement [At oil temp. 36.5°C (98°F)] F18A3, F20Z1, F20Z2 engines H23A3 engine Fuel Required Water Pump Displacement [At coolant temp. 40°C (104°F)] F18A3, F20Z1, F20Z2 engines H23A3 engine		Forced and wet sump, trochoid pump  53.7 ℓ/minute at 6,000 pump min <sup>-1</sup> (rpm) 59.1 ℓ/minute at 6,000 pump min <sup>-1</sup> (rpm) Premium UNLEADED grade gasoline with 95 Research Octane Number or higher  160 ℓ/minute at 6,000 pump min <sup>-1</sup> (rpm) 159 ℓ/minute at 6,000 pump min <sup>-1</sup> (rpm)				
STARTER	Type Normal Output Nominal Voltage Hour Rating Direction of Rotation Weight		Spur gear reduction, permanent magnet 1.4 kW, 1.6 kW 12 V 30 seconds Counterclockwise as viewed from gear end 3.5 kg 3.7 kg		7.7 lbs 8.2 lbs		
CLUTCH	Clutch Type Clutch Facing Area		M/T A/T M/T 217 cm <sup>2</sup>		Single plate dry, diaphragm spring Torque converter 33.6 sq-in		
TRANSMISSION	Transmission		M/T A/T		Synchronized 5-speed forward, 1 reverse Electronically controlled dual range 4-speed forward automatic, 1 reverse Direct 1 : 1		
	Primary Reduction						
	Type				Manual		Automatic
			Engine Type	F18A3, F20Z1	F20Z2	H23A3	
	Gear Ratio		1st	3.307	3.307	3.307	2.705
			2nd	1.809	1.809	1.809	1.366
			3rd	1.230	1.185	1.269	1.028
		4th	0.933	0.903	0.966	0.731	
		5th	0.757	0.735	0.757	—	
		Reverse	3.000	3.000	3.000	2.047	
Final Reduction		Gear type Gear ratio	Single helical gear 4.266		4.285		
AIR CONDITIONING	Cooling Capacity		4,100 Kcal/h		16,269 BTU/h		
	Compressor	Type/Make No. of Cylinder Capacity Max. Speed Lubricant Capacity	Swash-plate/NIPPONDENSO 10 178 cm <sup>3</sup> /rev 8,800 min <sup>-1</sup> (rpm) 160 ml		10.9 cu-in/rev 5.6 Imp oz		ND-OIL8
	Condenser	Type	Corrugated fin				
	Evaporator	Type	Corrugated fin				
	Blower	Type Motor Input Speed Control Max. Capacity	Sirocco fan 209 W max./12 V 5-speed 420 m <sup>3</sup> /h		14,834 cu-ft/h		
	Temp. Control		Air-mix type				
	Compressor Clutch	Type Power Consumption	Dry, single plate, poly-V-belt drive 40 W max./12 V				
	Refrigerant	Type Quantity	HFC-134a (R-134a) 750 <sup>0</sup> <sub>-50</sub> g		26.5 <sup>0</sup> <sub>-1.80</sub> oz		

	ITEM	METRIC	ENGLISH	NOTES
STEERING SYSTEM	Type Overall Ratio Turns, Lock-to-Lock Steering Wheel Diameter	Power assisted, rack and pinion 16.4 3.14 380 mm	15.0 in	
SUSPENSION	Type, Front  Type, Rear  Shock Absorber, Front and Rear	Independent double wishbone, coil spring with stabilizer Independent double wishbone, coil spring with stabilizer Telescopic, hydraulic nitrogen gas-filled		
WHEEL ALIGNMENT	Camber Front Rear  Caster  Total Toe Front Rear	0° 00' -0° 30' 3° 00'  0 mm In 2.0 mm	0 in In 0.08 in	
BRAKE SYSTEM	Type: Front Rear Pad Surface Area: Front 2.0 l M/T 2.0 l A/T and 2.3 l Rear Parking Brake	Power-assisted self-adjusting ventilated disc Power-assisted self-adjusting solid disc  49.4 cm <sup>2</sup> x 2 58.0 cm <sup>2</sup> x 2 29.7 cm <sup>2</sup> x 2	7.66 sq-in x 2 8.99 sq-in x 2 4.60 sq-in x 2	Mechanical actuating, rear two wheel brakes
TYRE	Size and Pressure	See tyre information label (see page 1-12)		
ELECTRICAL	Battery  Starter Alternator Fuses In the under-dash fuse/relay box In the under-hood fuse/relay box  In the under-hood ABS fuse/relay box Headlights Front Turn Signal Lights Front Position Lights Side Turn Signal Lights Rear Turn Signal Lights Stop/Taillights Back-up Lights Rear Fog Light License Plate Lights Ceiling (Interior) Lights Front Rear  Trunk (Boot) Lights Door Courtesy Lights Glove Box Lights Gauge Lights Indicator Lights/Lamps Warning Lights Illumination and Pilot Lights Heater Illumination Lights	KG (KF): 12 V - 57 AH/20 HR KE: 12 V - 47 AH/20 HR KS: 12 V - 55 AH/20 HR 12 V - 1.4 kW, 1.6 kW 12 V - 70 A  7.5 A, 10 A, 15 A, 30 A 7.5 A, 10 A, 15 A, 20 A, 30 A, 40 A, 50 A, 80 A 7.5 A, 15 A, 50 A 12 V - 55 W (H1) 12 V - 21 W (AMBER) 12 V - 5 W 12 V - 5 W 12 V - 21 W 12 V - 21 W 12 V - 21/5 W 12 V - 21 W 12 V - 21 W 12 V - 5 W 12 V - 5 W 12 V - 3.4 W 12 V - 3.4 W 12 V - 3.4 W 12 V - 5 W 12 V - 1.4, 3 W 12 V - 0.84, 1.12, 1.4 W, LED 12 V - 1.4 12 V - 0.56, 0.84, 1.12, 1.4 W 12 V - 1.4 W		

# Body Specifications

Unit: mm (in)



## Maintenance

Lubrication Points .....	4-2
Maintenance Schedule .....	4-4

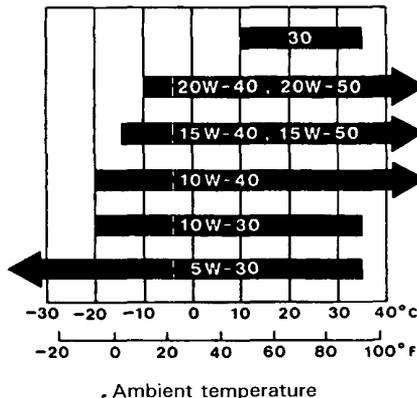


# Lubrication Points

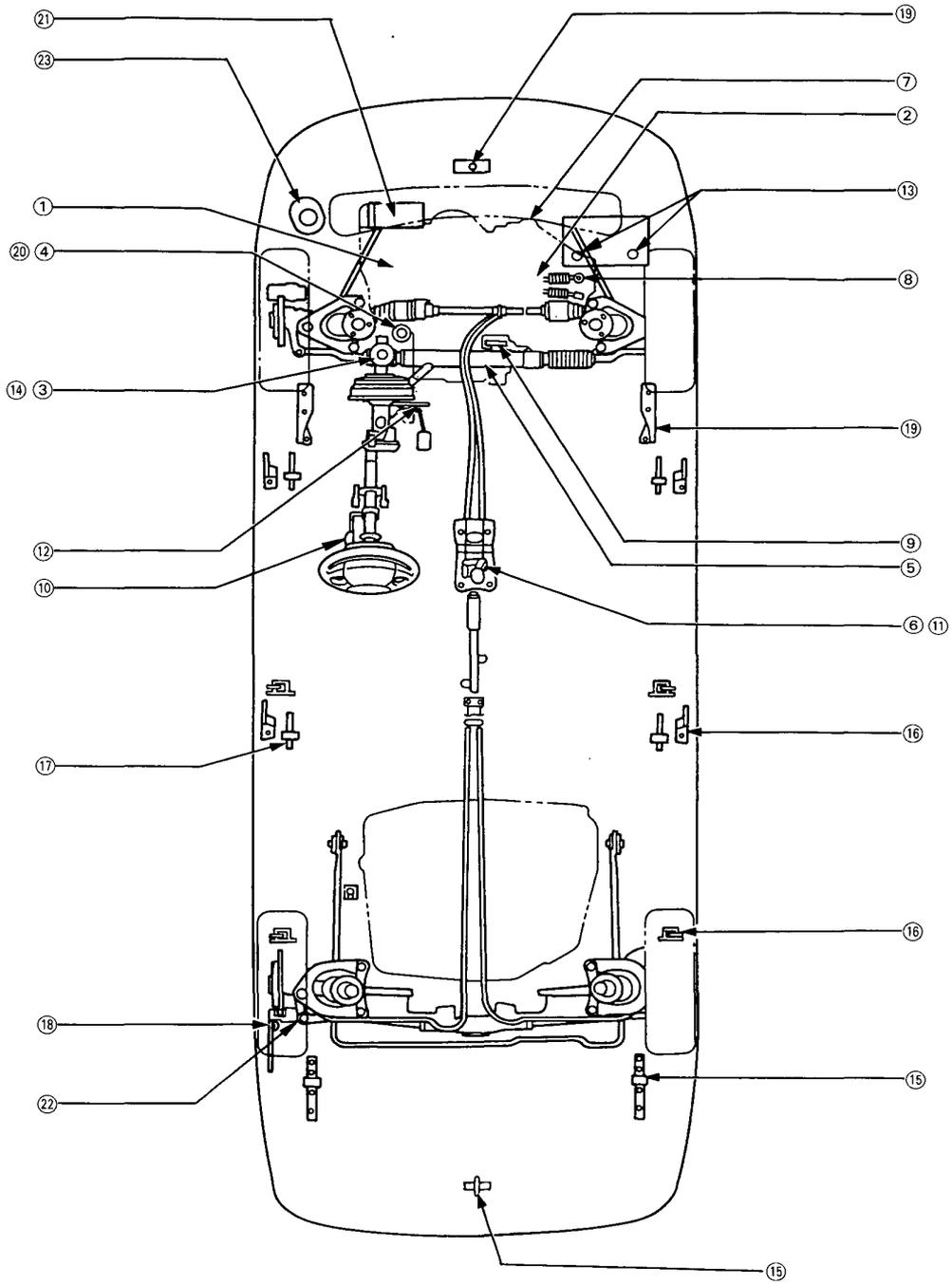
For the details of lubrication points and types of lubricants to be applied, refer to the illustrated index and various work procedure (such as Assembly/Reassembly, Replacement, Overhaul, Installation, etc.) contained in each section.

No.	LUBRICATION POINTS	LUBRICANT
1	Engine	Always use a fuel-efficient oil is that says "API Service SF, SG or SH." SAE Viscosity: See chart below.
2	Transmission Manual Automatic	API Service Grades: SF or SG SAE Viscosity: 10 W-30 or 10 W-40 Honda Premium Formula Automatic Transmission Fluid or an equivalent DEXRON® II Automatic transmission fluid
3	Brake Line	Brake fluid DOT3 or DOT4
4	Clutch Line	Brake fluid DOT3 or DOT4
5	Power steering gearbox	Steering grease (P/N 08733-B070E)
6	Shift lever pivots (Manual Transmission)	Urea grease UM264 (P/N 41211-PY5-305)
7	Release fork (Manual Transmission)	
8	Shift and select cable ends	Silicone oil
9	Throttle cable end	Multi-purpose grease
10	Steering wheel (Except cars with SRS airbag)	
11	Select lever (Automatic Transmission)	
12	Pedal linkage	
13	Battery terminals	
14	Brake master cylinder pushrod	
15	Trunk hinges and latches	
16	Door hinges upper/lower and latches	
17	Door open detents	
18	Fuel fill lid	
19	Hood hinges and hood latch	
20	Clutch master cylinder pushrod	
21	A/C compressor	Compressor oil ND-OIL8 (P/N 38899-PR7-003)
22	Rear brake caliper parking lever pin	Rust-preventive agent
23	Power steering system	Honda power steering fluid-V

Select the oil for the car according to this chart:



**CAUTION:** Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.



# Maintenance Schedule

R—Replace I—Inspect: After inspection, clean, adjust, fill up, repair or replace if necessary.  
 Service at the interval listed x 1,000 km (or miles) or after that number of months, whichever comes first.

Maintenance item	x 1,000 km	20	40	60	80	100	120	140	160	180	200	
• Engine oil and oil filter	x 1,000 miles	12	24	36	48	60	72	84	96	108	120	
• Transmission oil	months	12	24	36	48	60	72	84	96	108	120	
Valve clearance		Replace every 10,000 km (6,000 miles) or 12 months										
Belt tension and conditions (Alternator, PS pump, A/C compressor)			I		I		I		I		I	
Timing belt and timing balancer belt			I		I		I		I		I	
Water pump					R						R	
Cooling system hoses and connections			I		I		I		I		I	
• Engine coolant					R		R		R		R	
Spark plugs	Except for KS type		R		R		R		R		R	
	For KS type				R		R		R		R	
Air cleaner element		Replace every 48,000 km (30,000 miles)										
Tank, fuel lines and connections			R		R		R		R		R	
Fuel filter			I		I		I		I		I	
Positive crankcase ventilation valve			R		R		R		R		R	
Idle speed and idle CO		I*1	I*1	I*1	I*1	I	I	I	I	I	I	
Front brake pads												
Front brake discs and calipers												
Rear brake discs, calipers and pads												
Parking brake operation												
Brake fluid (including ABS)												
Brake hoses and lines			R		R		R		R		R	
Anti-lock brake system operation (Equipped for ABS)												
Exhaust system and condition												
Catalytic converter heat shield												
Day to day care (engine oil, ATF and coolant level) should be done practically according to the owner's manual by the customer.												
*1: For KS type, recommended by manufacturer only.												



R—Replace I—Inspect: After inspection, clean, adjust, fill up, repair or replace if necessary.

Maintenance item	x 1,000 km		x 1,000 miles		months		20	40	60	80	100	120	140	160	180	200
	Service at the interval listed	of months, whichever comes first.	Service at the interval listed	of months, whichever comes first.	Service at the interval listed	of months, whichever comes first.	12	24	36	48	60	72	84	96	108	120
Suspension components	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Steering function, tie-rod ends, gearbox and boots	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Power steering function, hoses and connections	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
All fluid levels	Inspect every 10,000 km (6,000 miles) or 12 months															
Battery condition	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Tyres condition, wear and pressure (including spare)	Inspect every 10,000 km (6,000 miles) or 12 months															
Lights operation and headlight beam	Inspect every 10,000 km (6,000 miles) or 12 months															
Paint damages and body work	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Test drive (Noise, stability, dashboard operations)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Cleanliness of controls, door handles etc.	Inspect after every service															
Supplemental Restraint System	Inspect system and replace slip ring *2 10 years first registration															

\*2: Except for cars with passenger's airbag.

#### Severe Driving Conditions

The following items must be serviced more frequently on cars normally used under severe driving conditions. Refer to the chart below for the appropriate maintenance intervals.

Severe driving conditions include:

- A: Repeated short distance driving.
- B: Driving in dusty conditions.
- C: Driving in severe cold weather.
- D: Driving in areas using road salt or other corrosive materials.
- E: Driving on rough and/or muddy roads.
- F: Towing a trailer.

Condition	Maintenance Item	Operation	Interval
A B • • • F	Engine oil and oil filter	R	Every 5,000 km (3,000 miles) or 6 months
• • • • • F	Transmission oil	R	Every 20,000 km (12,000 miles) or 12 months
• B • • • •	Air cleaner element	R	Every 20,000 km (12,000 miles) or 12 months
A B • D E F	Front brake discs and calipers	I	Every 10,000 km (6,000 miles) or 6 months
A B • D E F	Rear brake discs, calipers and pads	I	Every 20,000 km (12,000 miles) or 12 months
• B C • • •	Power steering system	I	Every 10,000 km (6,000 miles) or 6 months

R—Replace

I—Inspect: After inspection, adjust, clean, fill up, repair or replace if necessary.

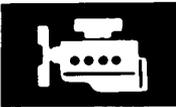
# Engine

**NOTE:**

The F18A3 engine has been adopted. For the service procedures, refer to the procedures for F20Z1 engine.

Refer to Shop Manual 62SN700 and 62SN721 for the items not shown in this section.

For the service data, refer to the specifications in section 3 of this manual.



## Outline of Model Change

- The F18A3 engine type has been added.

# Fuel and Emissions



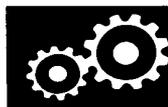
## Outline of Model Change

- F18A3 engine has been added; refer to base Shop Manuals F20Z2 engine (P/N 62SN700, 62SN720, 62SN721).

## **Transaxle**

**Manual Transmission ..... 13-1**

**Automatic Transmission ..... 14-1**



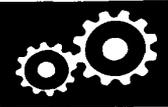
# Manual Transmission

## Countershaft

Clearance Inspection ..... 13-2

## Transmission

Reassembly ..... 13-3



### Outline of Model Changes

- Countershaft clearance inspection has been changed.
- Reverse idler gear shaft bolt torque has been changed.
- The F18A3 engine has been added. The transmission used with this engine is the N2S4 transmission (the same type as used with the F20Z1 engine).

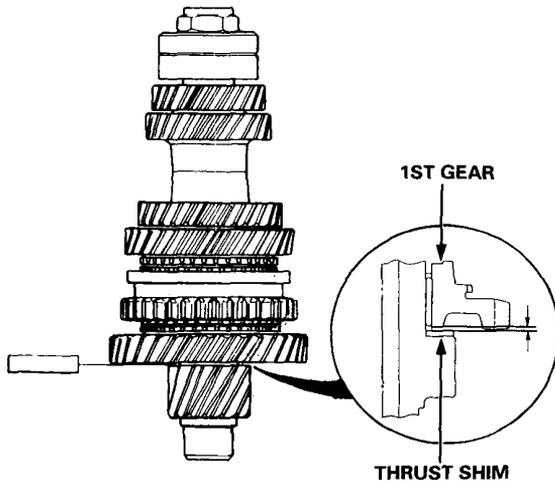
# Countershaft

## Clearance Inspection

1. Measure the clearance between the 1st gear and thrust shim.

**Standard:** 0.06 — 0.23 mm  
(0.002 — 0.009 in)

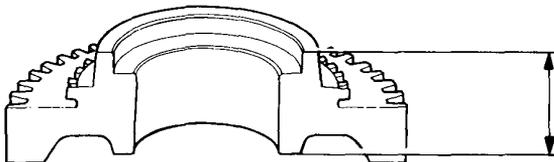
**Service Limit:** 0.23 mm (0.009 in)



2. If the clearance exceeds the service limit, measure the thicknesses of 1st gear and thrust shim.

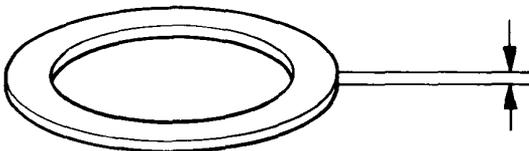
### 1ST GEAR

**Standard:** 32.95 — 33.00 mm (1.297 — 1.299 in)



### THRUST SHIM

**Standard:** 1.95 — 1.97 mm (0.077 — 0.078 in)

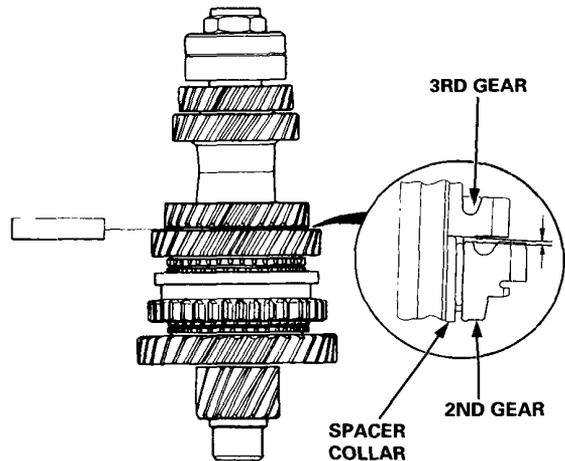


- If the thicknesses of 1st gear and thrust shim are less than the standard, replace with a new one.
- If the thicknesses of 1st gear and thrust shim are within the standard, replace the 1st/2nd synchro hub with a new one.

3. Measure the clearance between the 2nd gear and 3rd gear.

**Standard:** 0.05 — 0.10 mm  
(0.002 — 0.004 in)

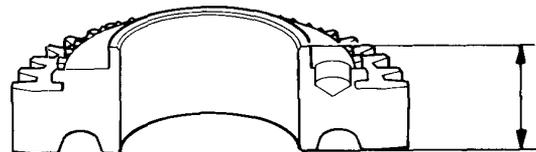
**Service Limit:** 0.18 mm (0.007 in)



4. If the clearance exceeds the service limit, measure the thicknesses of 2nd gear and spacer collar.

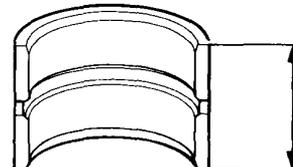
### 2ND GEAR

**Standard:** 28.92 — 28.97 mm (1.139 — 1.141 in)



### SPACER COLLAR

**Standard:** 29.02 — 29.04 mm (1.1425 — 1.1433 in)



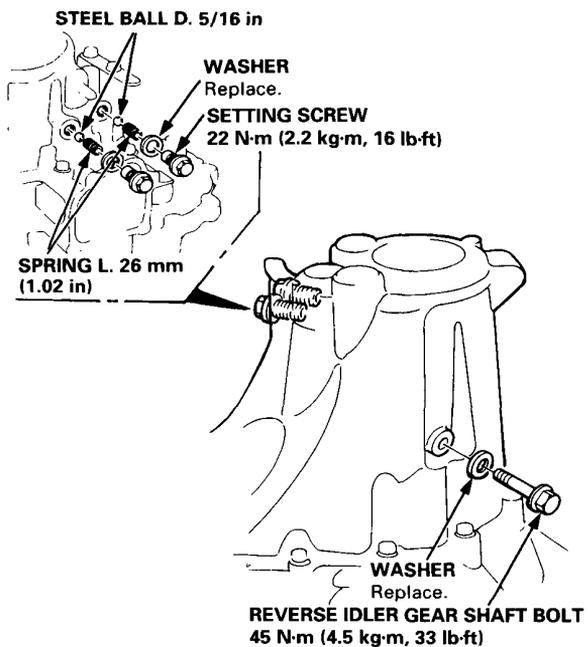
- If the thicknesses of 2nd gear and spacer collar are less than the standard, replace with a new one.
- If the thicknesses of 2nd gear and spacer collar are within the standard, replace the 1st/2nd synchro hub with a new one.



# Transmission

## Reassembly

Torque the reverse idler gear shaft bolt as shown.



# Automatic Transmission

## Clutch

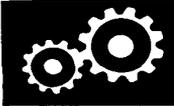
Illustrated Index ..... 14-2

## Secondary Shaft

Inspection ..... 14-4

## Transmission

Installation ..... 14-5



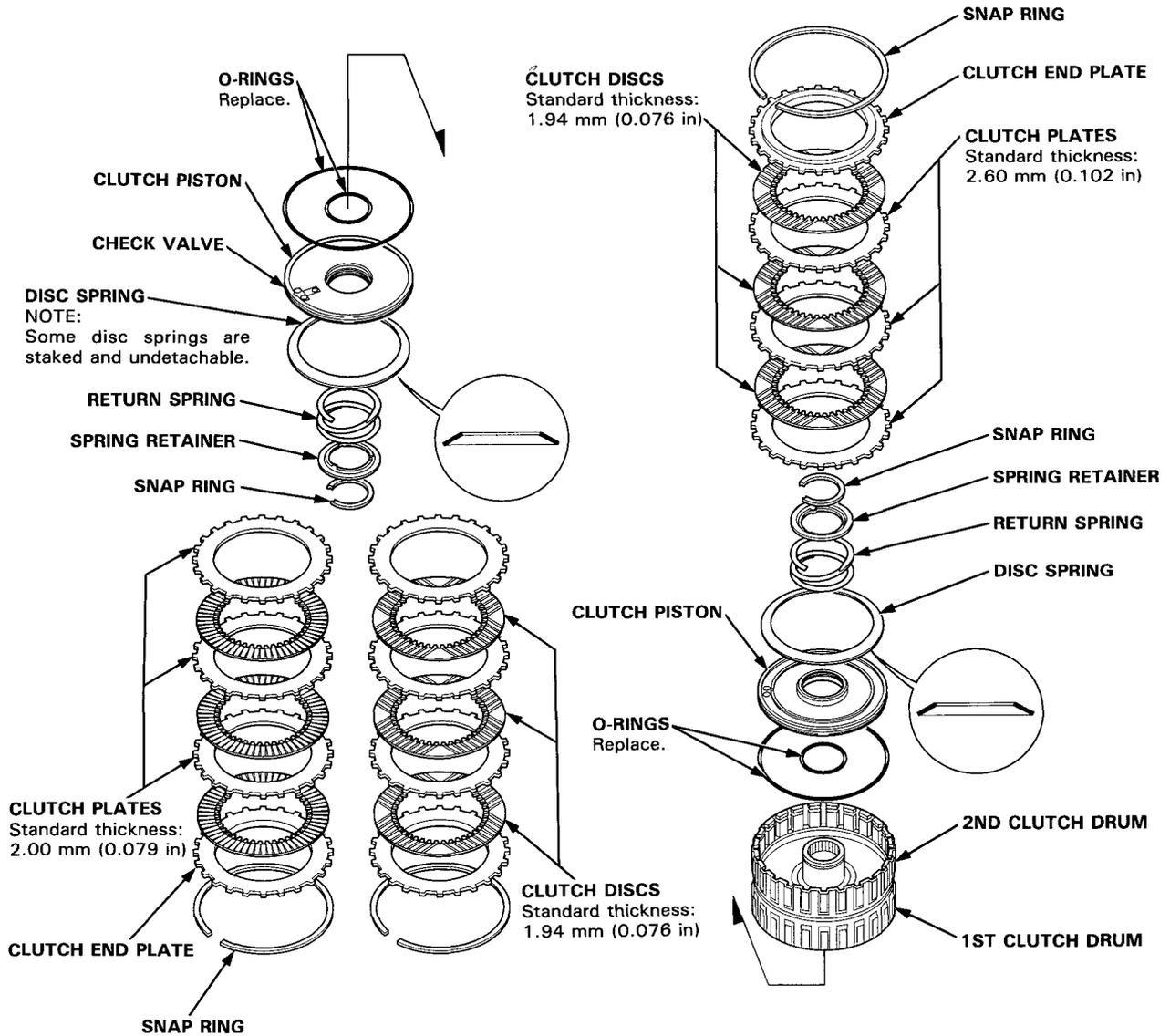
### Outline of Model Changes

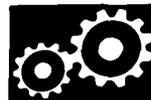
- New 1st clutch discs have been added.
- 1st-hold clutch plates have been changed.
- Secondary shaft axial clearance specification has been changed.
- Torque value of the transmission housing bolts has been changed.

# Clutch

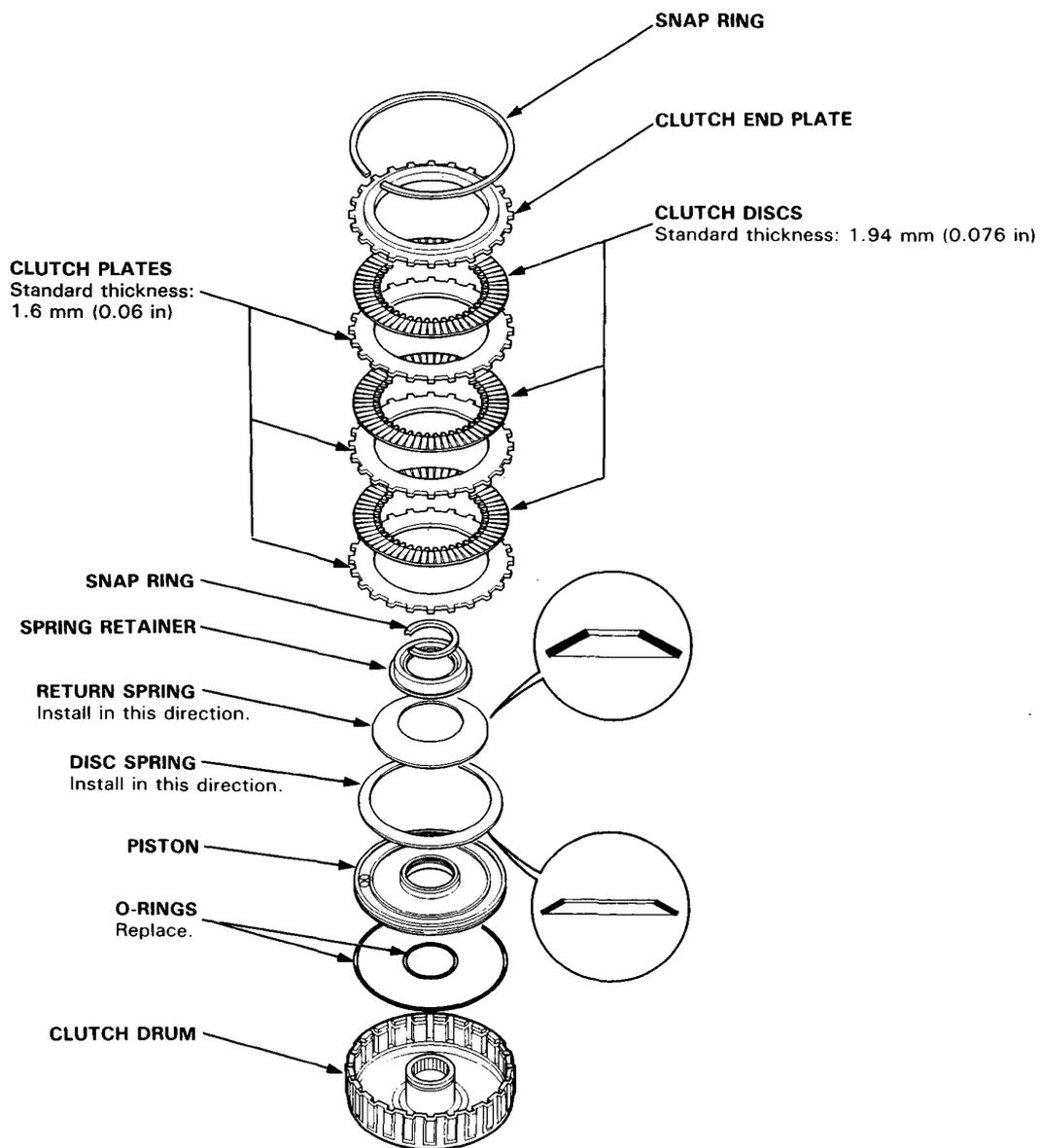
## Illustrated Index

1ST/2ND CLUTCH ASSEMBLY: F20Z1 Engine





# 1ST-HOLD CLUTCH ASSEMBLY



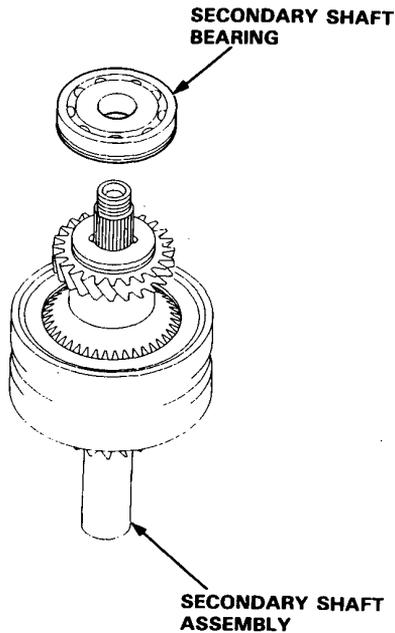
# Secondary Shaft

## Inspection

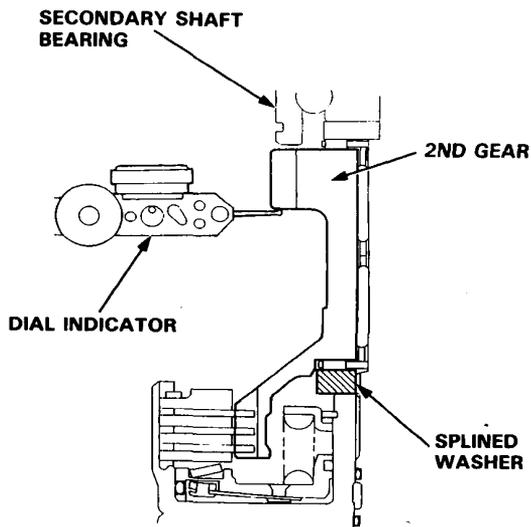
### ● Clearance Measurement

NOTE: Lubricate all parts with ATF during assembly.

1. Remove the secondary shaft bearing from the transmission housing (see Base Manual 62SN700 on page 14-132).
2. Assemble the secondary shaft assembly without O-rings.
3. Install the secondary shaft bearing on the secondary shaft.



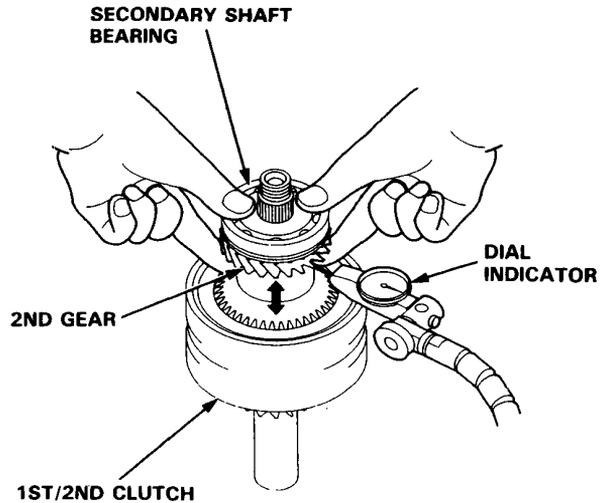
4. Set the dial indicator to the 2nd gear as shown.



5. Hold the secondary shaft bearing against the 1st/2nd clutch assembly. Measure the 2nd gear axial clearance while moving the 2nd gear.

**STANDARD: 0.04—0.12 mm (0.002—0.005 in)**

NOTE: Take measurements in at least three places, and use the average as the actual clearance.

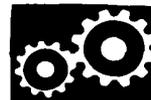


6. If the clearance is out of tolerance, remove the splined washer and measure its thickness.
7. Select and install a new splined washer then recheck.

### SPLINED WASHER

No.	Part Number	Thickness
1	90406—PX4—700	4.05 mm (0.159 in)
2	90407—PX4—700	4.10 mm (0.161 in)
3	90408—PX4—700	4.15 mm (0.163 in)
4	90409—PX4—700	4.20 mm (0.165 in)
5	90410—PX4—700	4.25 mm (0.167 in)
6	90411—PX4—700	4.30 mm (0.169 in)
7	90412—PX4—700	4.35 mm (0.171 in)
8	90413—PX4—700	4.40 mm (0.173 in)
9	90414—PX4—700	4.45 mm (0.175 in)

8. After replacing the splined washer, make sure that the clearance is within tolerance.



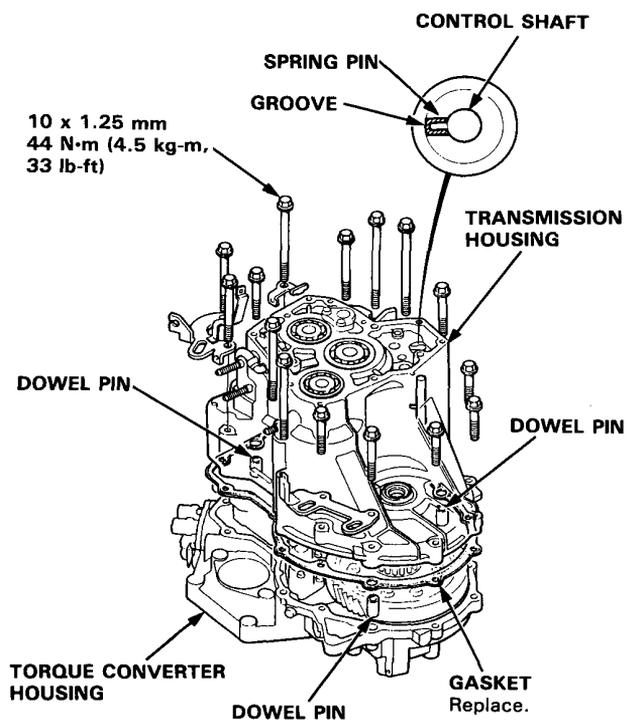
# Transmission

## Installation

### NOTE:

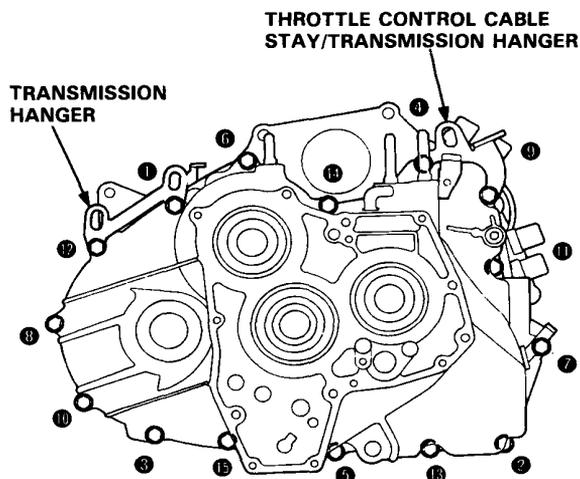
- The torque value of the transmission housing mounting bolts have been changed.
- These procedures shown are the exceptions from Transmission Installation of Base Manual (62SN721) on page 14-25.
- Refer to these procedures and Transmission Installation of Base Manual, when you install the transmission.

25. Place the transmission housing on the torque converter housing.



26. Install the transmission housing bolts along with the transmission hanger, throttle control cable stay/transmission hanger and harness stay. Torque the bolts in two or more steps in the sequence shown.

**TORQUE: 44 N·m (4.5 kg-m, 33 lb-ft)**



# Anti-lock Brake System (ABS)

## Modulator Unit

<b>Reservoir Replacement/ Accumulator Replacement and Disposal .....</b>	<b>19-2</b>
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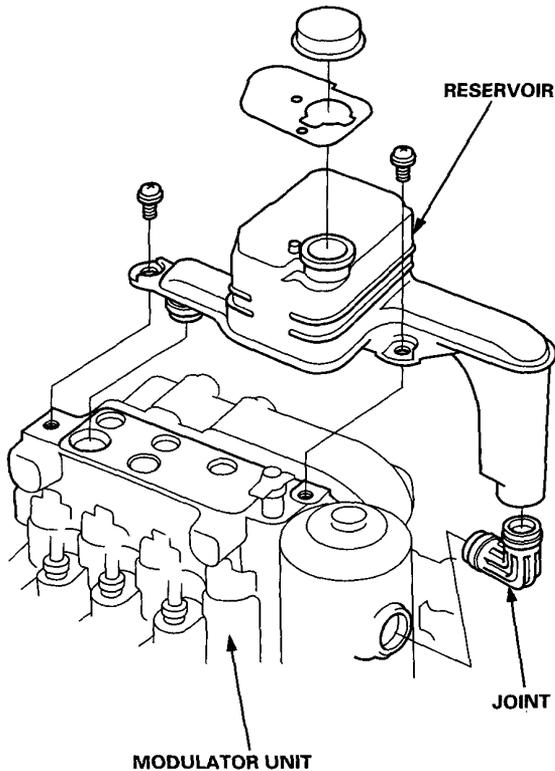
### Outline of Model Changes

- It is now possible to replace the reservoir and the accumulator of the modulator unit; removal procedures are included.

# Modulator Unit

## Reservoir Replacement

1. Drain the brake fluid completely from the reservoir.
2. Remove the reservoir from the modulator unit.



3. Install the reservoir in the reverse order of removal.
4. Fill the reservoir to the MAX (upper) level with fresh brake fluid.

### NOTE:

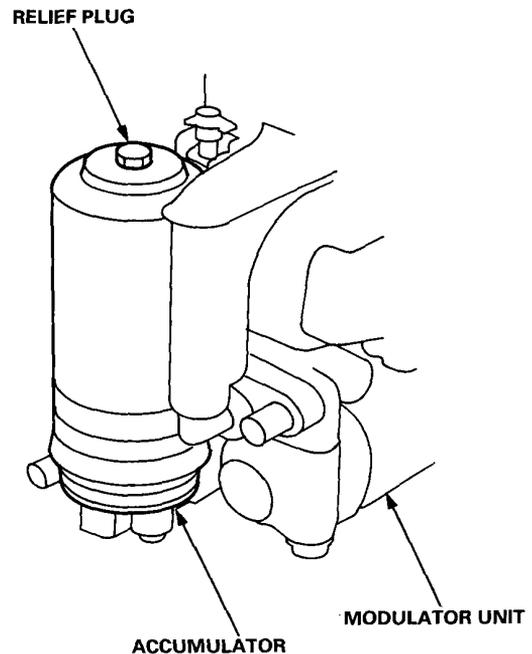
- After installing the reservoir, add fresh brake fluid until the reservoir is refilled to the specified level, and bleed air from the system.
- After installation, start the engine and make sure that the ABS indicator light goes off.

## Accumulator Replacement and Disposal

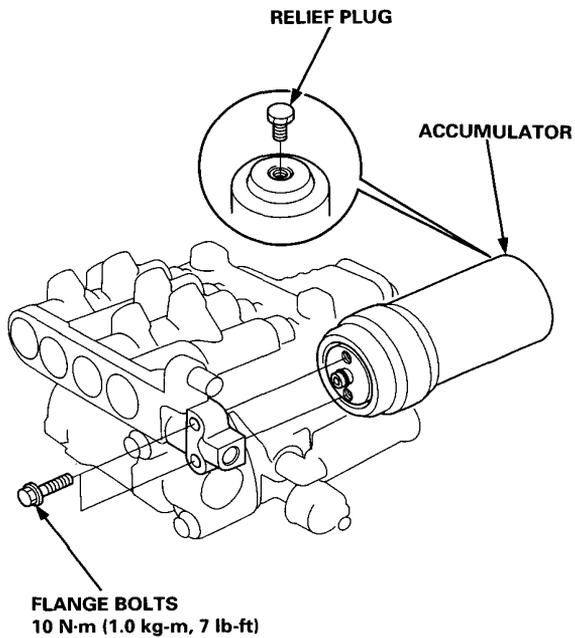
### ⚠ WARNING

- The modulator unit contains high-pressure brake fluid. Be sure to bleed the high-pressure fluid from the modulator unit before removing the accumulator.
- The accumulator contains high pressure nitrogen gas. Do not puncture, expose to flame, weld, drop or apply impact to the accumulator, or attempt to remove the accumulator from the modulator unit. The modulator unit may explode and severe and severe personal injury may result.

1. Bleed the high-pressure brake fluid from the modulator unit.
2. Loosen the relief plug three and a half turns slowly, and wait for three minutes for all pressure to escape.



3. Remove the modulator unit from the car.
4. Remove the accumulator from the modulator unit.
5. Remove the relief plug completely and dispose of the accumulator.



6. Install the new accumulator on the modulator unit.
7. Install the modulator unit.

**NOTE:**

- After installing the accumulator, and fresh brake fluid until the reservoir is refilled to the specified level, and bleed air from the system.
- After inspection, start the engine and make sure that the ABS indicator light goes off.

## Electrical

<b>Power Distribution .....</b>	<b>23-2</b>
<b>Keyless Entry and Security Alarm System</b>	
<b>Description .....</b>	<b>23-4</b>
<b>Circuit Diagram .....</b>	<b>23-6</b>
<b>Troubleshooting .....</b>	<b>23-8</b>
<b>Control Unit Input Test .....</b>	<b>23-9</b>

### Outline of Model Changes

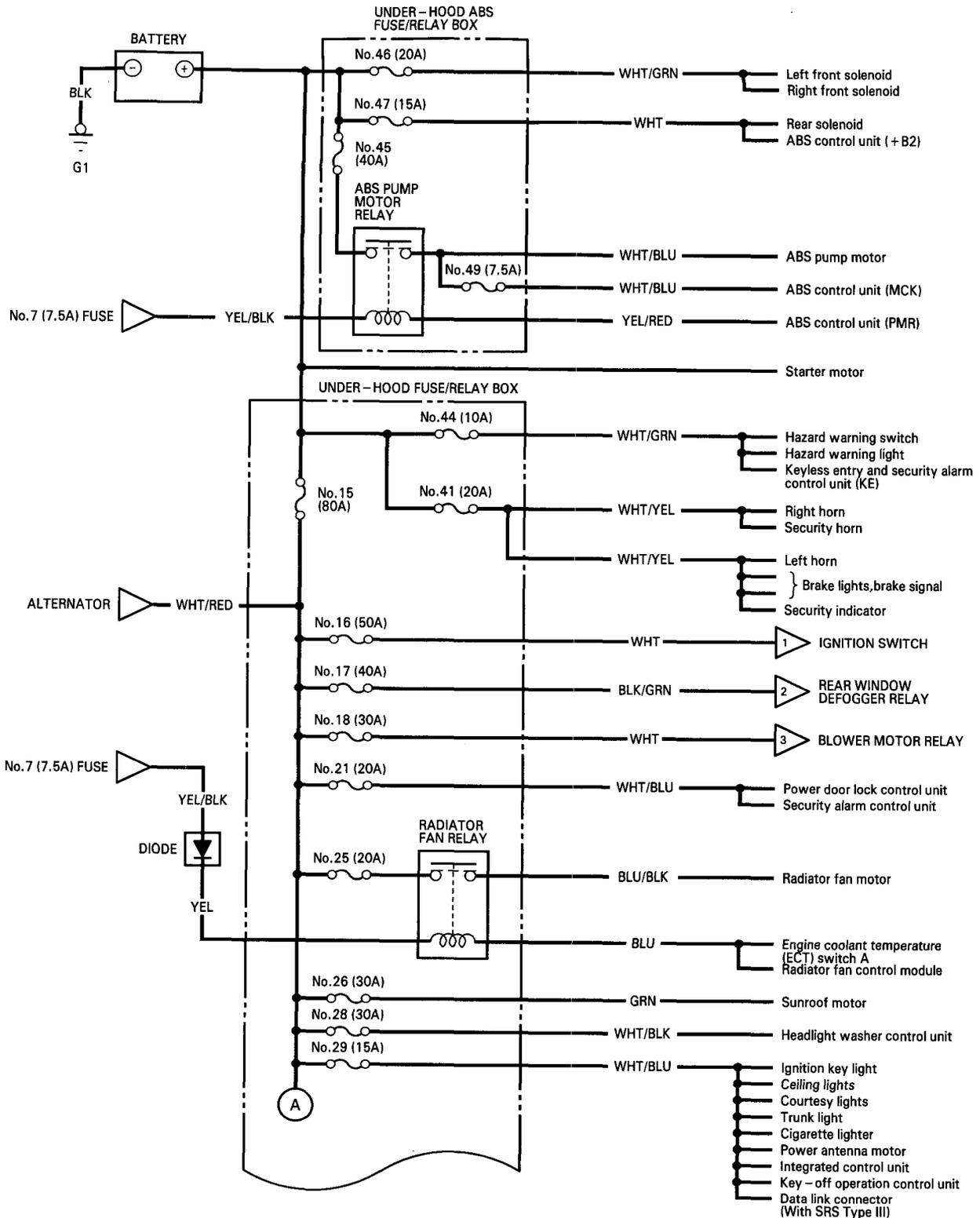
- Keyless Entry and Security Alarm System: The system has partly changed, related information is included.



# Power Distribution

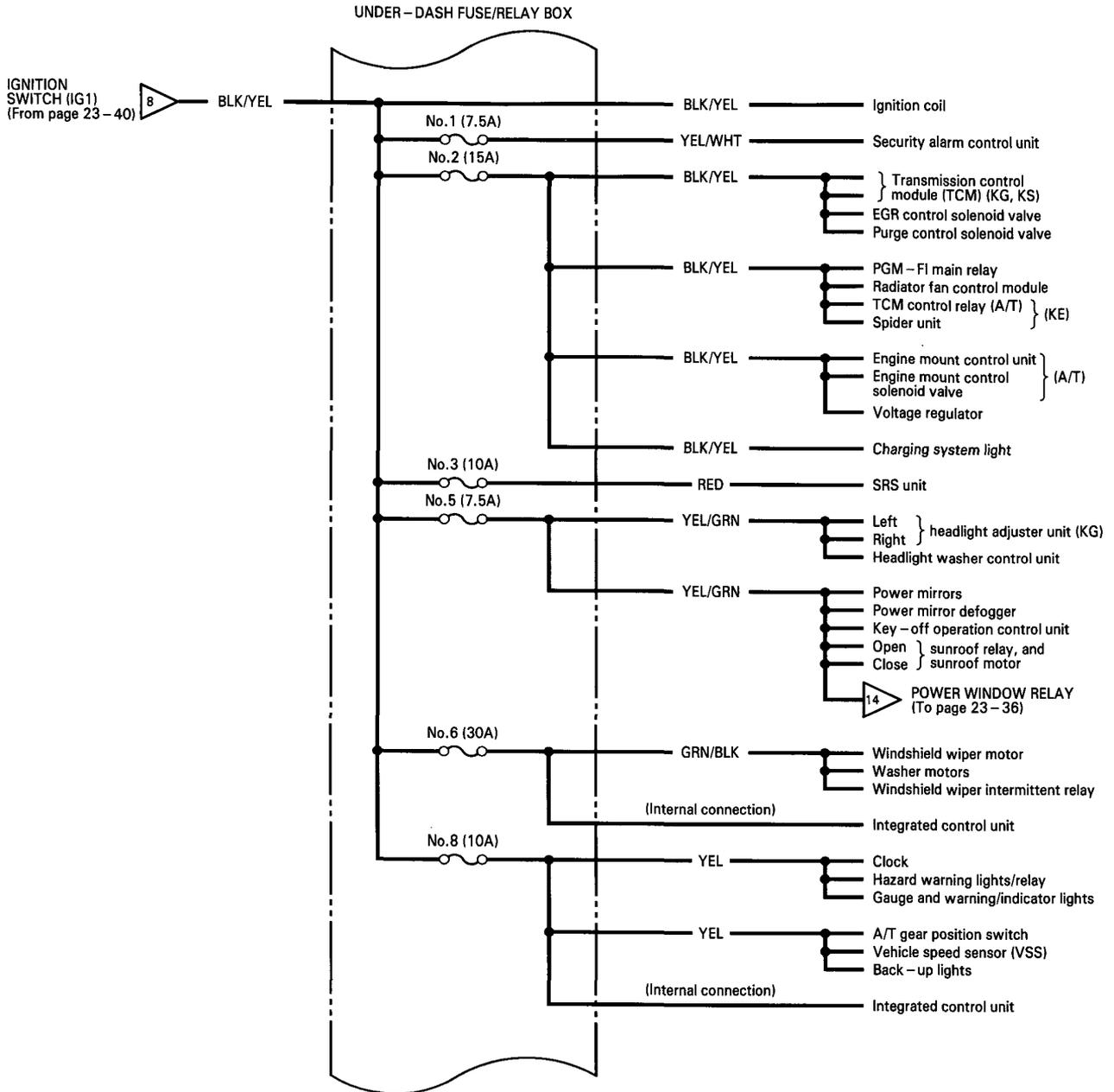
## Circuit Identification

NOTE: This page corresponds to page 23 – 14 in Shop Manual 62SN721 and reflects the model changes.





NOTE: This page corresponds to page 23 – 41 in shop Manual 62SN700 and reflects the model changes.



# Keyless Entry and Security Alarm System

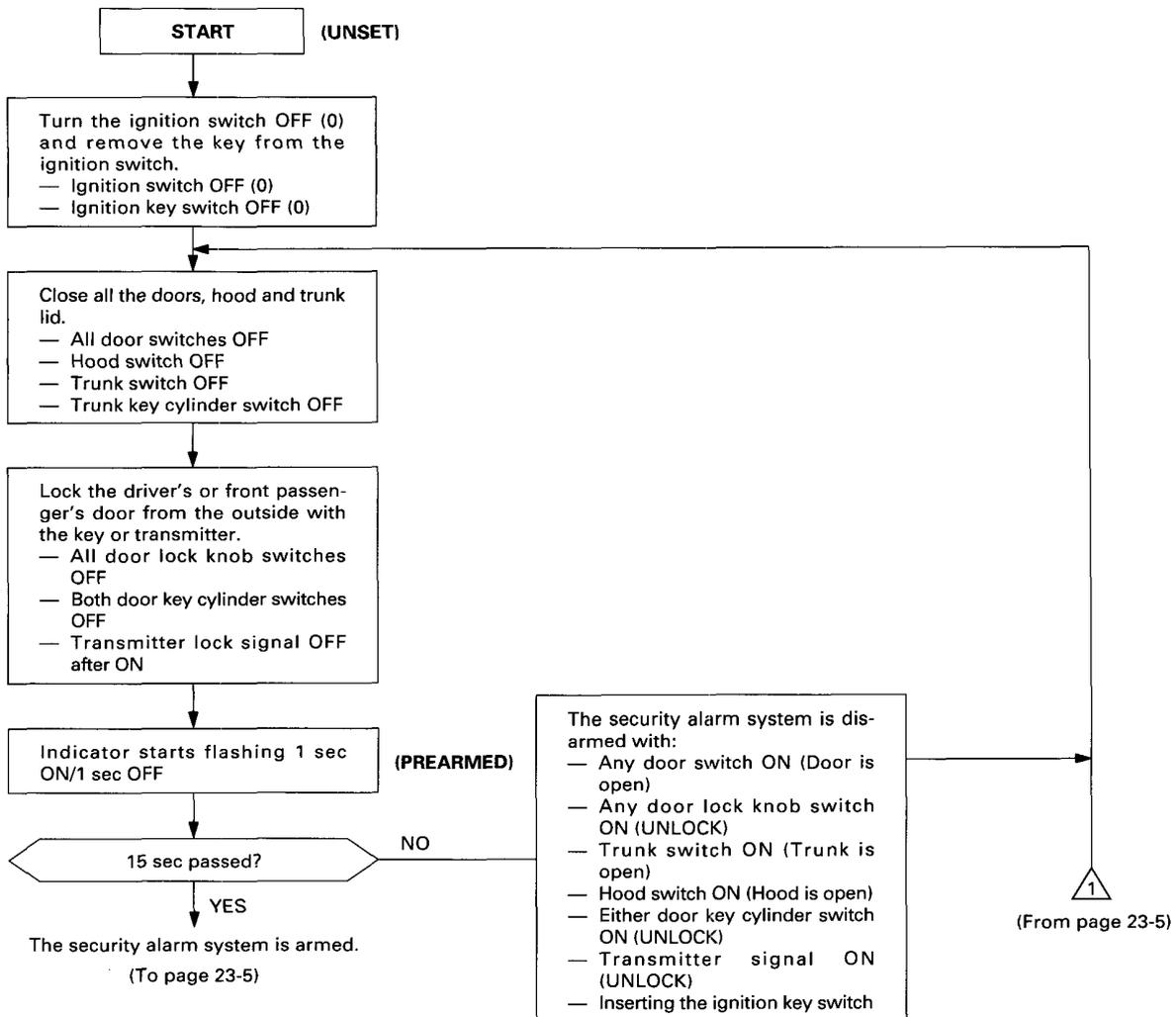
## Description

This system is activated automatically 15 seconds after everything has been closed and locked. The security alarm system indicator light located on the front door panels will flash after the doors, hood and trunk are properly locked. If any of conditions 1) to 6) occurs, the horn will sound, the turn signal lights will flash for about 30 seconds or until the system is disarmed, and the starter circuit will be interrupted or the immobilizer system (KE) will activate (engine won't start). The security system is disarmed by unlocking the driver's door or front passenger's door from the outside with the key or transmitter.

Conditions:

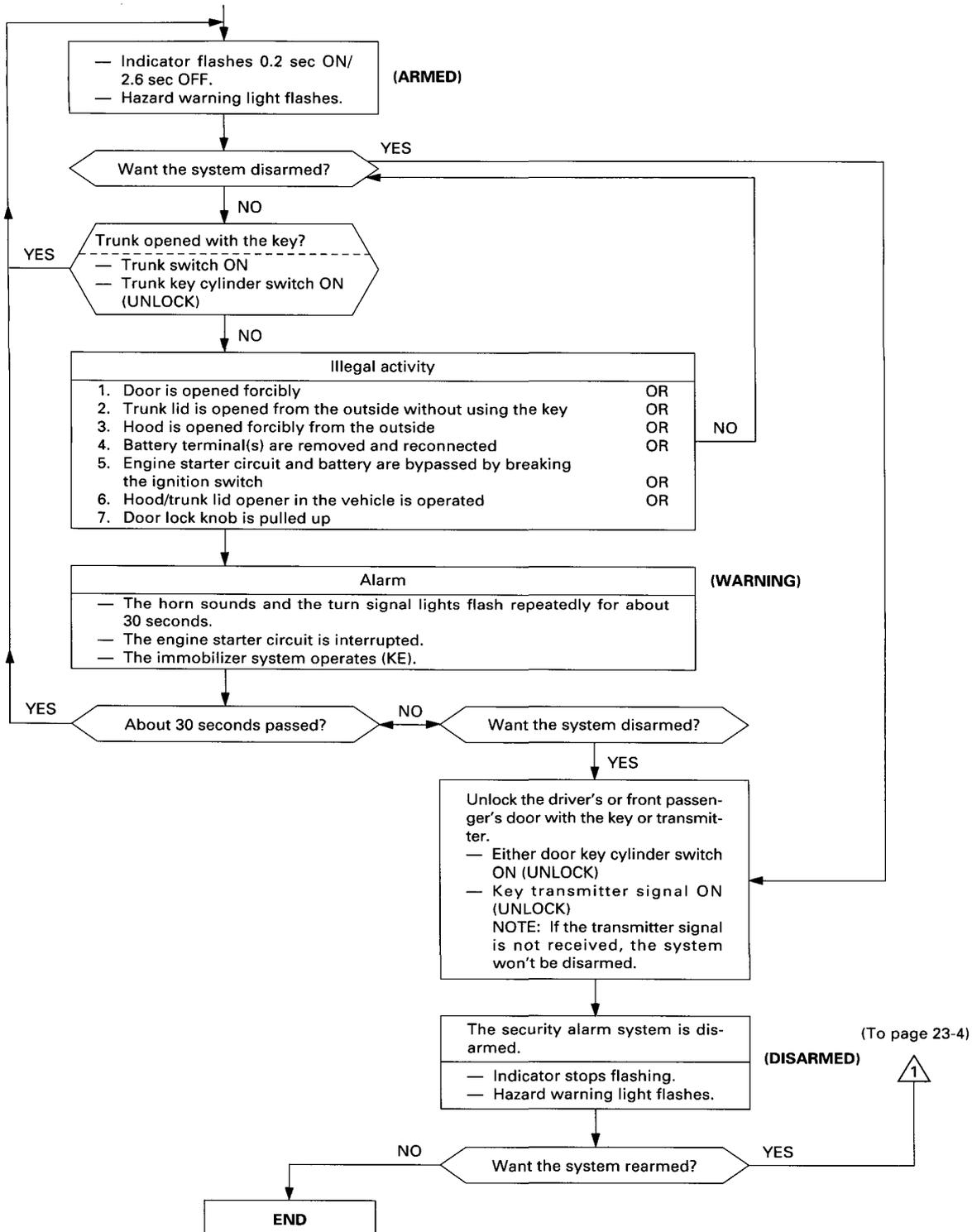
- 1) A door is opened forcibly.
- 2) The trunk lid is opened from the outside without using the key.
- 3) The hood is opened forcibly from the outside.
- 4) The battery terminal(s) are removed and reconnected.
- 5) The engine starter circuit and battery circuit are bypassed by breaking the ignition switch.
- 6) A door lock knob is pulled up.

Flowchart of the security alarm system operation:



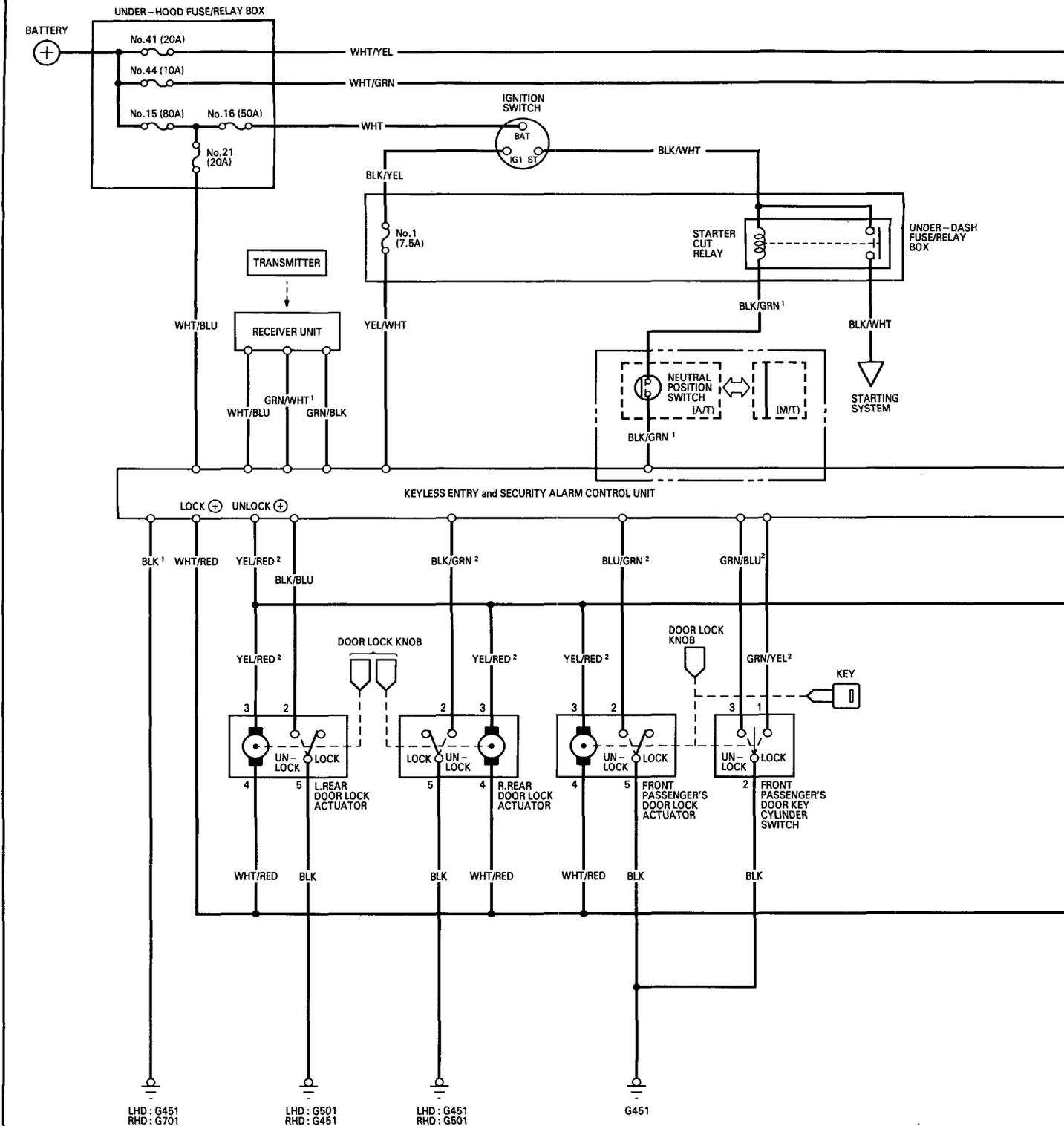


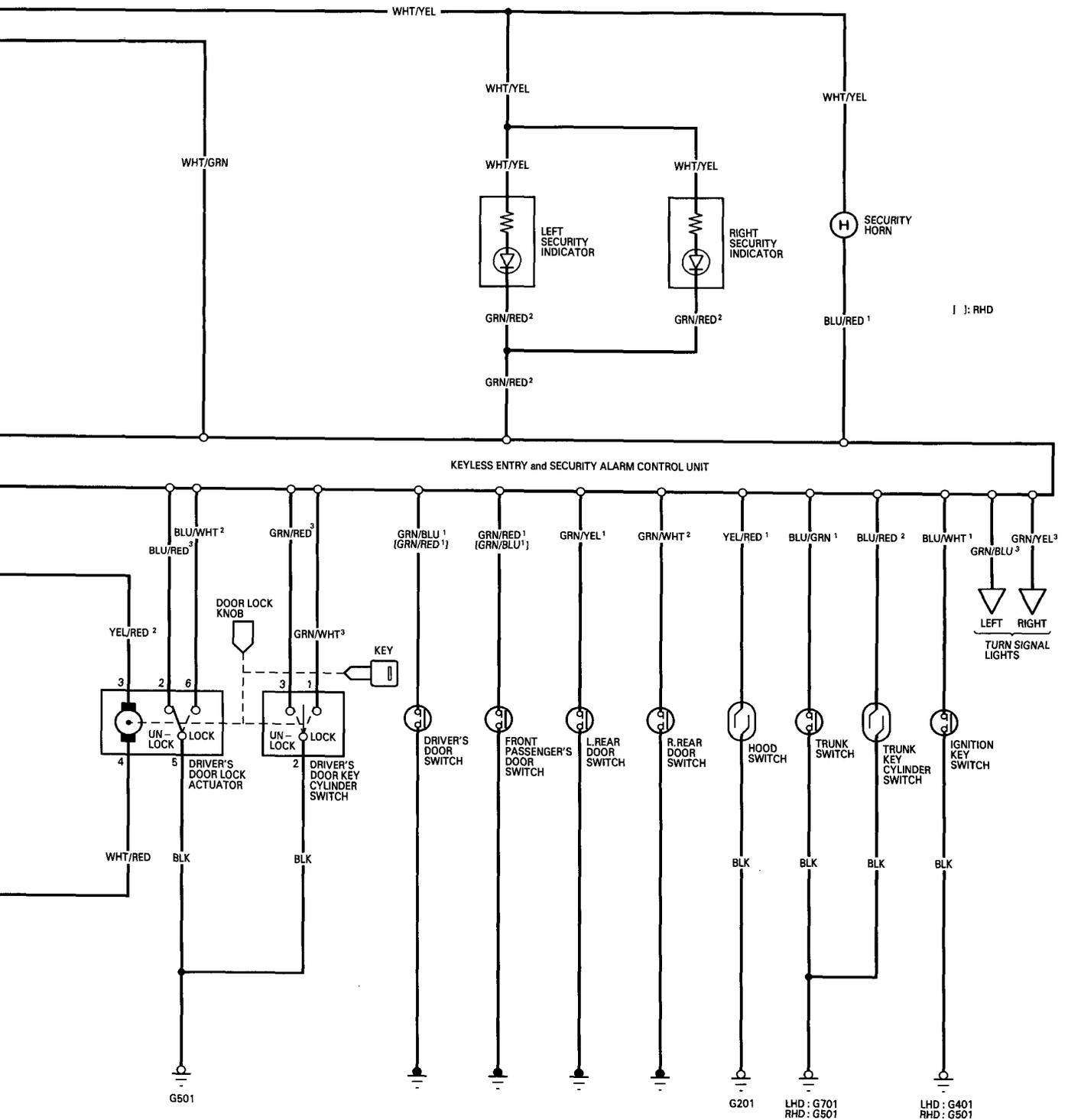
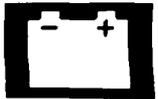
(From page 23-4)



# Keyless Entry and Security Alarm System

## Circuit Diagram





# Keyless Entry and Security Alarm System

## Troubleshooting

### Security Alarm System:

NOTE: The numbers in the table show the troubleshooting sequence.

Item to be inspected	In the under-hood fuse/relay box		In the under-dash fuse/relay box													Symptom	Parts	Notes	
	Blown No. 21 (20 A) fuse	Blown No. 41 (20 A) fuse	Blown No. 1 (7.5 A) fuse	Faulty indicator light (LED)	Horn circuit	Starting system	Turn signal/hazard system	Starter cut relay	A/T gear position switch: (A/T)	Receiver unit/transmitter	Door key cylinder switch	Ignition key switch	Trunk key cylinder switch	Trunk switch	Hood switch				Door switch
Security alarm cannot be set and indicator light does not flash.	1	2	3	4													6	G451 G501 G701	WHT/BLU, YEL/ WHT, WHT/YEL, GRN/RED <sup>2</sup> BLU/WHT <sup>1</sup>
Starting system does not operate.						1	2	3									4	5	BLK/GRN <sup>1</sup> ORN/RED
Security alarm can be set, but alarm does not operate when the trunk, hood or a door is opened without the key.	Horn alarm	1	2		3												4	G301	WHT/YEL, BLU/RED <sup>1</sup> , WHT/BLU
		Hazard warning lights alarm						1										2	
Alarm is not cancelled when the driver's or front passenger's door is opened with the key or transmitter.										2	1						3	G451 G501	BLU/WHT <sup>2</sup> , GRN/BLU <sup>2</sup> , GRN/WHT <sup>1</sup> , GRN/BLK WHT/BLU
Alarm does not operate when the hood is opened without the key.														1		2	G201	YEL/RED <sup>1</sup>	
Alarm does not operate when the trunk lid is opened without the key.												2	1			3	G501 G701	BLU/GRN <sup>1</sup> , BLU/RED <sup>1</sup>	
Alarm does not operate when a door is opened without the key.															1	2		GRN/BLU <sup>1</sup> , GRN/RED <sup>1</sup> , GRN/YEL <sup>1</sup> , GRN/WHT <sup>2</sup>	



## Control Unit Input Test

- Remove the right trunk side trim panel, then disconnect the 26-P and 22-P connectors from the security alarm control unit.
- Inspect the connector and the socket terminals to be sure they are all making good contact.
  - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
  - If the terminals look OK, make the following input tests at the connector.
    - If a test indicates a problem, find and correct the cause, the recheck the system.
    - If all the input test prove OK, the control unit must be faulty; replace it.

NOTE: Different wires with the same color have been given a number suffix to distinguish them (for example, GRN/BLU<sup>1</sup> and GRN/BLU<sup>2</sup> are not the same).

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11
A12	A13	/	/	/	A17	/	A19	/	A21	A22

B1	/	B3	/	B5	/	B8	B9	B10	B11	/
B14	/	/	/	B18	B19	B20	B21	B22	B23	B24

### Terminal Wire

No.	color	Test condition	Test: Desired result	Possible cause if result is not obtained
A1	GRN/BLU <sup>3</sup>	Connect battery power to the GRN/BLU <sup>3</sup> terminal.	Left turn signal light should come on as the battery is connected.	<ul style="list-style-type: none"> <li>Poor ground (G301, G401, G402, G451 or G501)</li> <li>An open in the wire</li> </ul>
A2	BLU/WHT <sup>1</sup>	Ignition key inserted into the ignition switch	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Faulty ignition key switch</li> <li>Poor ground (G401 [G501])</li> <li>An open in the wire</li> </ul>
B20	BLU/RED <sup>2</sup>	Trunk key cylinder switch in UNLOCK	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Faulty trunk key cylinder switch</li> <li>Faulty trunk switch</li> <li>Poor ground (G701 [G501])</li> <li>An open in the wire</li> </ul>
A3	BLU/GRN <sup>1</sup>	Trunk lid open	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Faulty trunk lid switch</li> <li>Poor ground (G201)</li> <li>An open in the wire</li> </ul>
A4	YEL/RED <sup>1</sup>	Hood open	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Faulty hood switch</li> <li>Poor ground (G201)</li> <li>An open in the wire</li> </ul>
A5	BLK/BLU	Left rear door lock knob in UNLOCK	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Left rear door lock knob switch (built into the actuator)</li> <li>Poor ground (G501 [G451])</li> <li>An open in the wire</li> </ul>
A6	BLK/GRN <sup>2</sup>	Right rear door lock knob in UNLOCK	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Right rear door lock knob switch (built into the actuator)</li> <li>Poor ground (G451 [G501])</li> <li>An open in the wire</li> </ul>
A7	BLU/GRN <sup>2</sup>	Front passenger's door lock knob in UNLOCK	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Front passenger's door lock knob switch (built into the actuator)</li> <li>Poor ground (G451)</li> <li>An open in the wire</li> </ul>
A19	BLU/WHT <sup>2</sup>	Driver's door lock knob in LOCK	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Poor ground (G501)</li> <li>An open in the wire</li> </ul>
A8	BLU/RED <sup>3</sup>	Driver's door lock knob in UNLOCK	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Poor ground (G501)</li> <li>An open in the wire</li> </ul>
A9	BLK/GRN <sup>1</sup>	Ignition switch at START (M/T)	Check for voltage to ground: There should be battery voltage.	<ul style="list-style-type: none"> <li>Faulty starter cut relay</li> <li>Faulty A/T gear position switch (A/T)</li> <li>An open in the wire</li> </ul>
		Ignition switch at START and A/T gear position switch in position P		
A10	YEL/WHT	Ignition switch ON	Check for voltage to ground: There should be battery voltage.	<ul style="list-style-type: none"> <li>Blown No. 1 (7.5 A) fuse in the under-dash fuse/relay box</li> <li>An open in the wire</li> </ul>
A11	WHT/BLU	Under all conditions	Check for voltage to ground: There should be battery voltage.	<ul style="list-style-type: none"> <li>Blown No. 21 (20 A) fuse in the under-hood fuse/relay box</li> <li>An open in the wire</li> </ul>

(cont'd)

# Keyless Entry and Security Alarm System

## Control Unit Input Test (cont'd)

Terminal Wire No.	color	Test condition	Test: Desired result	Possible cause if result is not obtained
A12	GRN/YEL <sup>3</sup>	Connect battery power to the GRN/YEL <sup>3</sup> terminal.	Right turn signal lights should come on as the battery is connected.	<ul style="list-style-type: none"> <li>Poor ground (G201, G401, G402, G452 or G501)</li> <li>An open in the wire</li> </ul>
A13	GRN/RED <sup>2</sup>	Under all conditions	Connect to ground: The security indicators should come on.	<ul style="list-style-type: none"> <li>Blown No. 41 (20 A) fuse in the under-hood fuse/relay box</li> <li>Faulty security indicator</li> <li>An open in the wire</li> </ul>
A21	BLU/RED <sup>1</sup>	Under all conditions	Connect to ground: The security horn should sound.	<ul style="list-style-type: none"> <li>Blown No. 41 (20 A) fuse in the under-hood fuse/relay box</li> <li>Faulty security horn</li> <li>An open in the wire</li> </ul>
A22	BLK <sup>1</sup>	Under all conditions	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Poor ground (G451 or G701)</li> <li>An open in the wire</li> </ul>
B14 B1	WHT/RED and YEL/RED <sup>2</sup>	Connect the YEL/RED <sup>2</sup> and WHT/BLU terminals, and the WHT/RED and BLK <sup>1</sup> terminals momentarily.	Check the door lock actuators: All doors should unlock as the battery is connected momentarily.	<ul style="list-style-type: none"> <li>Faulty actuator</li> <li>An open in the wire</li> </ul>
		Connect the WHT/RED and WHT/BLU terminals, and the YEL/RED <sup>2</sup> and BLK <sup>1</sup> terminals momentarily.	Check the door lock actuators: All doors should lock as the battery is connected momentarily.	
B3	WHT/GRN	Under all conditions	Check for voltage to ground: There should be battery voltage.	<ul style="list-style-type: none"> <li>Blown No. 44 (10 A) fuse in the under-hood fuse/relay box</li> <li>An open in the wire</li> </ul>
B21	GRN/YEL <sup>1</sup>	Left rear door open	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Faulty left or right rear door switches</li> <li>Poor ground (G451, G501)</li> <li>An open in the wire</li> </ul>
B8	GRN/WHT <sup>2</sup>	Right rear door open		
B9	GRN/BLU <sup>1</sup> [GRN/RED <sup>1</sup> ]	Driver's door open	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Faulty driver's or front passenger's door switches</li> <li>Poor ground (G451, G501)</li> <li>An open in the wire</li> </ul>
B22	GRN/RED <sup>1</sup> [GRN/BLU <sup>1</sup> ]	Front passenger's door open		
B10	GRN/BLU <sup>2</sup>	Front passenger's door key cylinder switch in UNLOCK		
B23	GRN/YEL <sup>2</sup>	Front passenger's door key cylinder switch in LOCK	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Faulty front passenger's door key cylinder switch</li> <li>Poor ground (G451)</li> <li>An open in the wire</li> </ul>
B11	GRN/RED <sup>3</sup>	Driver's door key cylinder switch in UNLOCK		
B24	GRN/WHT <sup>3</sup>	Driver's door key cylinder switch in LOCK	Check for continuity to ground: There should be continuity.	<ul style="list-style-type: none"> <li>Faulty driver's door key cylinder switch</li> <li>Poor ground (G501)</li> <li>An open in the wire</li> </ul>

[ ]: RHD