## INTRODUCTION

### How to Use This Manual

This supplement contains informaiton for the 1993 LEGEND. Refer to following shop manuals for service procedures and data not included in this supplement.

Description	Code No.
LEGEND MAINTENANCE, REPAIR AND CONSTRUCTION 91 LEGEND SUPPLEMENT 92	62SP000 62SP020

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 ---

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

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

NOTE: Gives helpful information.

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

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

marked sections are not included in this manual.

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General Info	
Special Tools	0
Specifications	specs
Maintenance	ميالة
Engine	
Cosling	
Fuel and Emissions	0
*Transaxle	$\odot$
*Steering	
Suspension	<b>*</b>
Brakes (Including ABS)	ABS
*Body	
*Heater and Air Conditioning	
* Electrical (Including SRS)	+

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

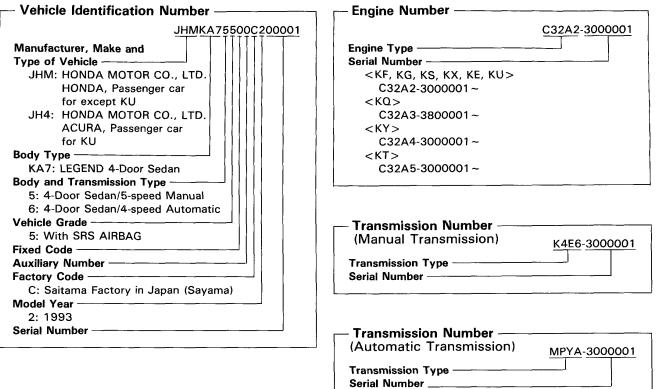
# **Outline of Model Changes**

ITEM	DESCRIPTION	MODELS		REFERENCE
		92	93	SECTION
Engine	Changed: Engine mounts/brackets and Transmission mounts/brackets		0	5, 6, 14
PGM-FI	ECU modified		0	11
Automatic Transmission	Changed: Gearshift points and Torque value of locknuts Modified: Gearshift selector (KQ), Hydraulic flow circuit, A/T speed sensor, Valve bodies and Rear cover		0	14
Suspension	16 inch aluminum wheel added (European type) Turning angle specifications changed (European type)		0	18
Brake (ABS)	ABS control unit changed		0	19
Body	Front seats modified Rear power seat added (KQ, KY, KT)		0	20
Air Conditioning	System for new refrigerant R-134a changed		0	22
Electrical	Power supply circuit changed Added: Interlock system (KQ), Key-in reminder system (KY), Rear power seat (KQ, KT, KY) and Spark plug for models without catalytic converter		0	23
Supplemental Restraint	SRS unit changed Troubleshooting procedure modified	0		
System (SRS)	Front seat passenger's airbag and Seat belt pretensioner added		0	23

## **General Informaiton**

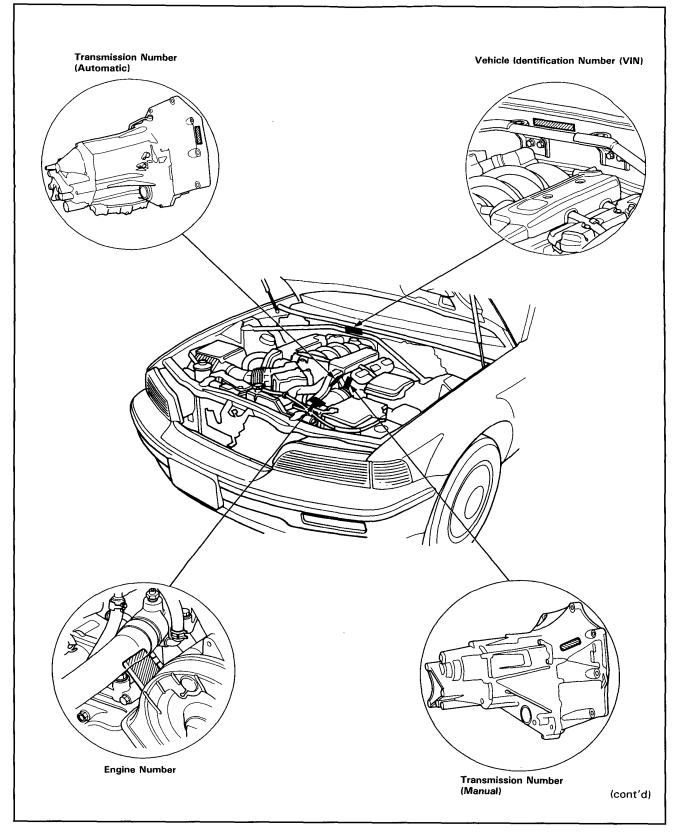
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## **Chassis and Engine Numbers**

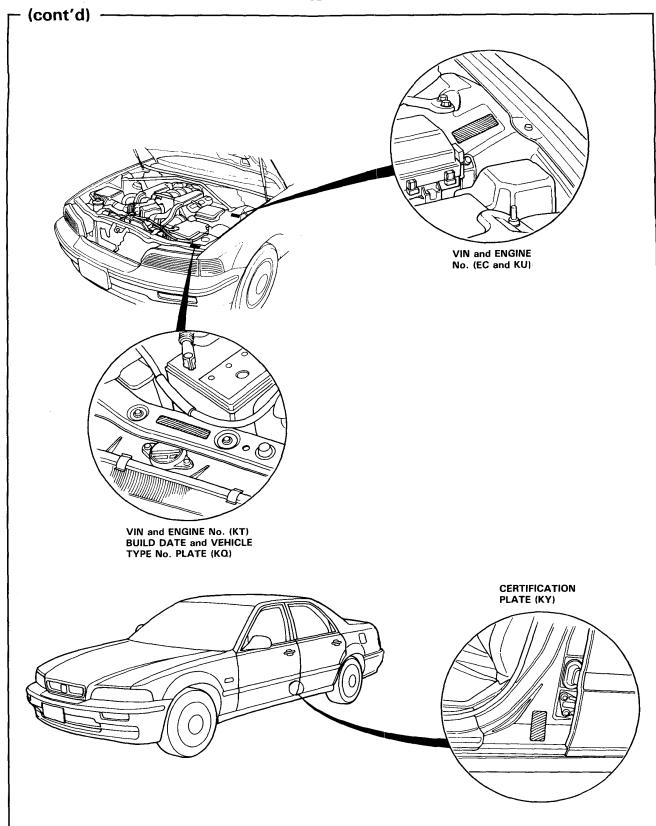


## **Identification Number Locations**

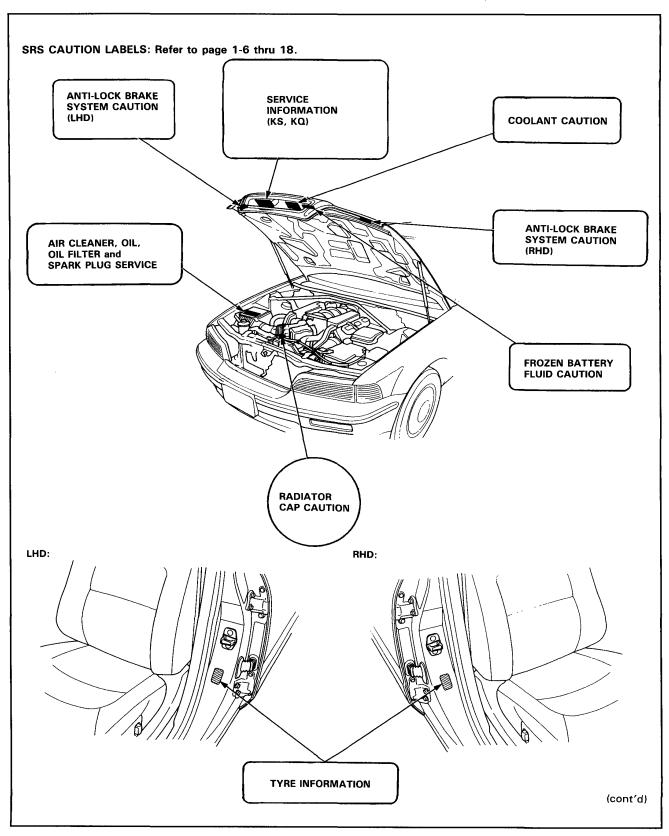




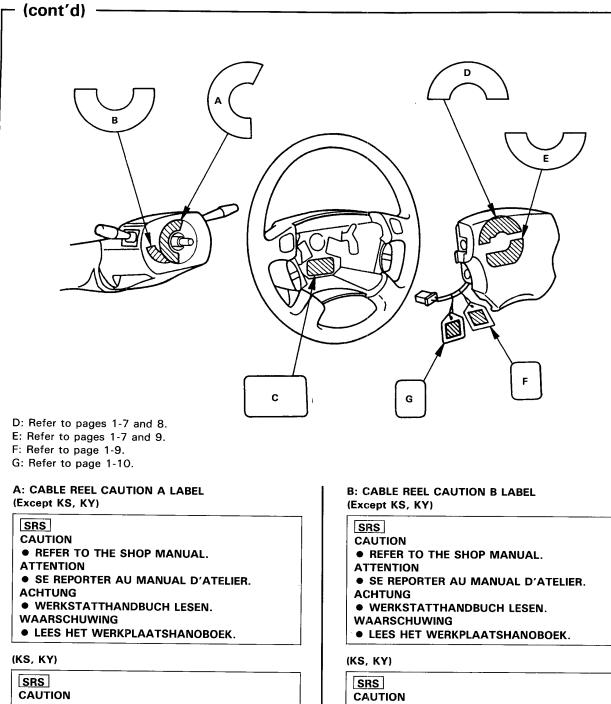
## **Identification Number Locations**



## Warning/Caution Label Locations



## Warning/Caution Label Locations



REFER TO THE SHOP MANUAL.

LÄS IGENOM INSTRUKTIONSBOKEN.

تحذير

اقرأ دليل الخدمة.

OBSERVERA

• Lue huoltokirjanen.

Varoitus

SRS
CAUTION
REFER TO THE SHOP MANUAL.
OBSERVERA
LÄS IGENOM INSTRUKTIONSBOKEN.
Varoitus
Lue huoltokirjanen.
تحذير
2

اقرأ دليل الخدمة.

C: STEERING WHEEL WARNING LABEL (Except KS, KY)

WARNING SRS

- REFFER TO THE SHOP MANUAL.
- SE REPORTER AU MANUEL D'ATELIER.
- WERKSTATTHANDBUCH LESEN.
- LEES HET WERKPLAATSHANDBOEK.

#### (KS, KY)

- WARNING SRS
- REFER TO THE SHOP MANUAL.
- SE VERKSTADSHANDBOKEN.
- KATSO TYÖKÄSIKIRJAA.

لمزيد من المعلومات نرجو مراجعة كتيب دليل الاستخدام في

الورشة.

D: INFLATOR COVER LABEL (KF, KG, KX)

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

(KE, KQ, KT)

DANGER EXPLOSIVE/FLAMMABLE SRS CONTACT WITH ACID, WATER, OR HEAVYMETALS SUCH AS COPPER, LEAD, OR MERCURY, MAY PRODUCE HARMFUL AND IRRITATING GASES OR **EXPLOSIVE COMPOUNDS. STORAGE TEMPERA-**TURES MUST NOT EXCEED 100°C. FOR PROPER HANDLING, STORAGE, AND DISPOSAL PROCE-DURES REFER TO THE HONDA SHOP MANUAL, SRS SUPPLEMENT. POISON CONTAINS POISONOUS SODIUM AZIDE AND POTASSIUM NITRATE. FIRST AID: IF CONTENTS ARE SWALLOWED, INDUCE VOMITING. FOR EYE CONTACT, FLUSH EYES WITH WATER FOR **15 MINUTES. IF GASES (FROM ACID OR WATER** CONTACT) ARE INHALED, SEEK FRESH AIR. IN EV-ERY CASE, GET PROMPT MEDICAL ATTENTION. **KEEP OUT OF REACH OF CHILDREN.** 

#### (KS, KY)

DANGER EXPLOSIVE/FLAMMABLE POISON REFER TO THE SHOP MANUAL. FARLIGT EXPLOIVT/VÄTTANTÄNDLIGT GIFTIGT SE VERK-STADSHANDBOKEN. VAARA HELPOSTI RÄJÄHTÄVÄ/SYTTYVÄ MYRKKY GIFT KATSO TYÖKÄSIKIRJAA. مادة خطيرة مادة متفجرة/قابلة للاشتعال

مادة ستجرد *إ*ت مادة سامة

لمزيد من المعلومات نرجو مراجعة كتيب دليل الاستخدام في الورشة.

(cont'd)

## Warning/Caution Label Locations

(cont'd) -

D: DRIVER MODULE DANGER LABEL (KU)

#### A DANGER

#### **EXPLOSIVE/FLAMMABLE**

Contact with acid, water or heavymetals such as copper, lead or mercury may produce harmful and irritating gases or explosive compounds. Storage temperatures must not exceed 200 °F (100 °C). For proper handling, storage and disposal procedure refer to Service (Shop) Manual, SRS supplement. POISON

Contains poisonous sodium azide and potassium nitrate.

#### **FIRST AID**

If contents are swallowed, induce vomiting. For eye contact, flush eyes with water for 15 minutes. If gases (from acid or water contact) are inhaled, seek fresh air, in every case, get prompt medical attention.

#### DANGER

#### **EXPLOSIBLE/INFLAMMABLE**

Tout contact avec l'acide, l'eau ou des métaux lourds comme le cuivre. Le plomb ou le mercure risque de produire des gaz nocifs et irritants ou des composés explosifts. Les températures de rangement ne devront pas dépasser 200 °F (100 °C). Pour les procédures de manipulation, de rangement et de mise au rebut, voir le suplément SRS du manuel d'entrien.

#### POISON

Renferme de l'acide de soude et du nitrate de potassium toxiques.

#### PREMIERS SECOURS

Si le contenu est absorbé. En cas de contact avec les yeux, laver à grande eau pendant un quart d'heure. En cas d'inhalation des gaz (par contact avec l'acide ou l'eau). Aller à l'air frais. Dans tous les cas, obtenir promptement des soins médicaux.

#### E: MODULE WARNING LABEL (KF, KG, KX)

#### WARNING SRS

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

#### (KE. KQ. KT)

WARNING SRS TO PREVENT ACCIDENTAL DEPLOYMENT AND POSSIBLE IN INJURY:

ALWAYS INSTALL THE PROTECTIVE SHORT CON-NECTOR ON THE INFLATOR CONNECTOR WHEN THE HARNESS IS DISCONNECTED.

UNDER NO CIRCUMSTANCES SHOULD DIAGNOSIS BE PERFORMED USING ELECTRICAL TEST EQUIP-MENT OR PROBING DEVICES. NO SERVICEABLE PARTS INSIDE. DO NOT DISASSEMBLE OR TAMPER. STORE THE REMOVED AIRBAG ASEMBLY WITH THE PAD SURFACE UP.

FOR SPECIAL HANDLING OR STORAGE REFER TO THE HONDA SHOP MANUAL.

DISPOSE OF THE ENTIRE UNIT AS DIRECTED.

(KS, KY)

- WARNING SRS
- REFER TO THE SHOP MANUAL.
- SE VERKSTADSHANDBOKEN.
- KATSO TYÖKÄSIKIRJAA.

لزيد من المعلومات نرجو مراجعة كتيب دليل الاستخدام في الورشة.

## E: DRIVER MODULE WARNING LABEL (KU)

WARNING

The airbag inflator is explosive and, if accidentally deployed, can seriously hurt or kill you.

- Do not use electrical test equipment or probing devices. They can cause accidental deployment.
- No serviceable parts inside. Do not disassemble.
- Place airbag upright when removed.
- Follow Service (Shop) Manual instructions carefully.

#### **ATTENTION**

Le gonfleur de conssin d'air est explosible et s'il se déploie accidentellement, il risque de provoquer des blessures graves ou de tuer.

- Ne pas utiliser de matériel d'essai électrique ni de sonde. Ils pourraient provoquer un déploiment accidentel du coussin d'air.
- Il n'y a pas de pièces réparables à l'intérieur. Ne pas démonter.
- Quand on retire le coussin d'air, le tenir à la verticale.
- Suivre attentivement les instructions du manuel d'entretien.

### F: INFLATOR CAUTION LABEL

(KF, KG, KX)

#### ACHTUNG SRS

AUM SCHUTZ VOR UNBEABSICHTIGTER AUSLOSUNG UND MOGLICHEN VERLETZUNGEN: BEI ANSCHLUSS DES KURZSCHLUSSICHERUNGES STECKERS AN DEN GASGENERATORSTECKER IMMER DEN KABELBAUM ABTRENNEN.

#### WAARSCHUWING SRS

OM TE VOORKOMEN DAT HET SYSTEEM PER ONGELUK IN BEDRIJF WORDT GESTELD EN OM VERWONDINGEN TE VOORKOMEN, DIENT U DE BESCHERMENDE KORTE CONNECTOR OP DE VULINRICHTINGCONNECTOR UITSLUITEND TE INSTALLEREN WANNEER DE DRAADBOOM IS LOSGEKOPPELD. (KE, KQ, KT, KU)

🛕 WARNING

Accidental aribag deployment can seriously burt or kill you.

Install the red service connector when the inflator harness is disconnected.

#### ATTENTION

Tout déploiement accidentel du coussin d'air risque de provoquer des blessures graves ou de tuer. Quand le faisceau de fils du gonfleur est déconnecté, installer le connecteur d'entretlen rouge.

#### (KS)

VARNING SRS FÖR ATT FÖRHINDRA OAVSIKTLIG UTLÖSNING OCH TÄNKBARA SKADOR: SÄTT ALLTID DET SKYDDANDE KORT-SLUTNINGSSTIFTET PA TRYCKPUMPSKONTAKTEN

NÄR KABELNÄTET LOSSAS. Varoitus <u>SRS</u>

Estää vahingollisen käytön ja mahdollisen vahingoittumisen:

Asenna aina suojaava lyhyt liitin pumpun liittimeen silloin kun haarniska on irti.

#### (KY)

WARNING SRS TO PREVENT ACCIDENTAL DEPLOYMENT AND POSSIBLE INJURY:

ALWAYS INSTALL THE PROTECTIVE SHORT CONNECTOR ON THE INFLATOR CONNECTOR WHEN THE HARNESS IS DISCONNECTED.

تنبيه : (.S.R.S) لكي تمنع حدوث الانتشار العرضي أو الضرر المحتمل. قم دائما بتركيب الموصل القصير على موصل النافخ عند فصل الأحزمة.

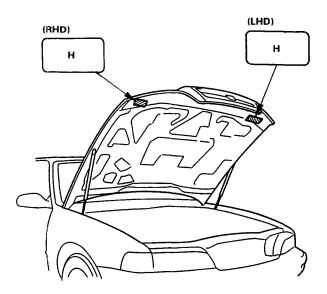
## Warning/Caution Label Locations

(cont'd) -

G: INFLATOR BAM LABEL (KF, KG, KX only) TRW Safety Systems manufactured inflator: Air Bag Gas Genertor 150028 **TRW Safety Systems/Mesa** Herstellungsjahr: 1989 Elnführer: Honda Deutschland Gmbh/offenbach BAM PT1-0358 Der Gasgenertor dart 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 in-Contains stalled in vehicles equipped with the Flammable airbag system. The gas generator is Solids US to be installed and/or disassembled DOT-E-8236 only by trained personnel. ATTENTION Le générateur de gaz ne peut être in-**Content De** stallé que sur des véhicules équipés d'un système airbag Le montage et le Solides Flammable US démontage du générteur de gaz ne DOT-E-B8236 peut être effactué que par un personnel qualifie.

NIPPON KOKI manufactured in flator:

Air Bag Gas Generator NK8 NIPPON KOKI, SHIRAKAWA JAPAN Herstellungsjahr: 1991 Elnführer: Honda Deutschland GmbH/Offenbach BAM PT1-0379			
Der Gasgenertor dart 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 Contains Flammable Solids	The gas generator should only be in- stalled in vehicles equipped with the airbag system. The gas generator is to be installed and/or disassembled only by trained personnel.		
ATTENTION Content De Solides Flammable	Le générateur de gaz ne peut être in- stallé que sur des véhicules équipés d'un systéme airbag Le montage et le démontage du générateur de gaz ne peut être effactué que par un person- nel qualifie.		



H: Refer to page 1-11

H: ENGINE HOOD WARNIHG LABEL (Except KS, KY)

WARNING SRS THIS VEHICLE IS EQUIPPED WITH A AIRBAG SYSTEM AS A SUPPLEMENTAL RESTAINT 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 (S.R.S.).

TOUS LES FILS ET CONNECTEURS ELECTRIQUES DU SYSTEME DE RETENUE COMPLEMENTAIRE (S.R.S.) SONT DE COULELUR JAUNE. N'UTILISEZ PAS UN EQUIPMENT D'ESSAIS ELECTRIQUE SUR CES CIRCUITS. NE TOUCHEZ PAS ET NE DEBRANCHEZ PAS LES FILS DU SYSTEME S.R.S. CAR CECI POURRAIT DE TRADUIRE PAR LE DECLENCHEMENT ACCIDENTEL DU GONFLEUR OU RENDRE LE STSTEME INOPERANT ET VOUS EXPOSER AINSI A DE GRAVES BLESSURES.

WARNING SRS

DIESES FAHRZEUG IST MIT EINEM FAHRERAIRBAG (SRS) ALS ZUSÄTZLICHEM RÜCKHALTESYSTEM AUSGERÜSTET.

ALLE ELEKTRISCHEN KABEL, SOWIE DEI ZUGEHÖRIGEN STECKVERBINDER DES S.R.S.-SYSTEMS SIND IN GELBER FARBE AUSGEFÜHRT. KEINE ELEKTRISCHEN PRÜFGERÄTE AN DIE S.R.S.-VERKABELUNG ANSCHLIEBEN. VERÄNDERN ODER UNTERBRECHEN DER S.R.S-VERKABELUNG KANN UNKONTROLLIERTES ZÜNDEN DES GASGENERATORS AUSLÖSEN.

ODER DAS SYSTEM AUBER FUNKTION SETZEN WAS ZU ERNSTHAFTEN VERLETZUNGEN FÜHREN KANN.

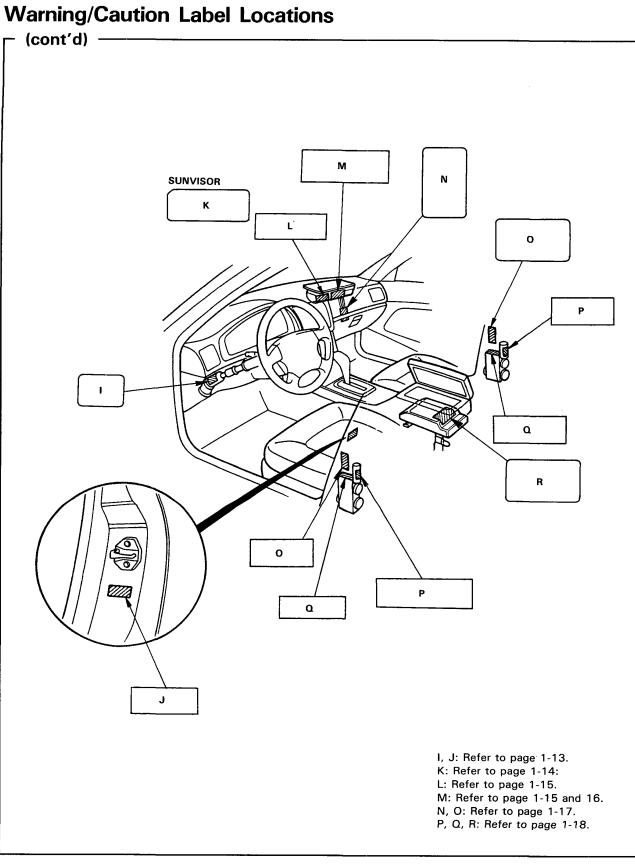
WAARSCHUWING SRS

DIT VOERTUIG IS UITGERUST MET EEN LUCHTKUSSEN AAN DE BESTUURDERSKANT ALS EXTRA BESCHERMINT (S.R.S.).

ALLE ELEKTRISCHE LEIDINGEN EN AANSLUTINGEN VAN DE S.R.S. ZIJN GEEL GEKLEURD. GEBRUIK GEEN ELEKTRISCHE TESTAPPARATUUR VOOR DEZE CIRCUITS. KNOEIEN MET OF LOSKOPPELEN VAN DE S.R.S LEIDINGENN KAN LEIDEN TOT BRAND IN DE VULINRICHTING OF TOT UITSCHAKELEN VAN HET SYSTEEM DIT KAN TOT ERNSTIGE ONGELUKKEN LEIDEN. (KS, KY)

WARNING SRS THIS VEHICLE IS EQUIPPED WITH A 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. VARING 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 DESSA KRETSAR. OM DU ÄNDRAR ELLER LOSSAR EN SRS-LEDNING KAN DET **RESULTERA I EN OAVSIKTLIG UTLÖSNING 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-LITTIMET OVAT KELTAISET. ÄLÄ KÄYTÄ SÄHKÖKOELAITTEITA NÄISSÄ VIRTAPIIREISAÄ, SRS-JOHTOJEN TUKKEAMINEN TAI IRROTAAMINEN SAATTAA SYTYTTÄÄ VAHINGOSSA PUMPUN TAI TEHDÄ JÄRJESTELMÂN KÄYTTÖKELVOTTOMAKSI. TÄSTÄ TAAS SAATTAA AIHEUTUA VAKAVIA VAURIOITA. تنبيه : (S.R.S.) تم تجهيز هذه السيارة بكيس هوائي لوقاية السائق كنظام كبح اضافی (.S.R.S). جميع الأسلاك الكهر بانية الخاصة بنظام الكبح الاضافي (.S.R.S) والموصلات ملونة باللون الأصفر. لا تستعمل معدات اختبار الكهر باء على هذه الدوائر. ان العبث أو فصل أسلاك نظام الكبح الاضافي (.s.R.s) يمكن أن يؤدي للحريق العرضي للنافخ أو يتسبب في تعطيّل النظام عن العمل مما يؤدي ال حدوث أضرار خطيرة.

(cont'd)





I: STEERING COLUMN CAUTION LABEL (KF, KG, KX)

#### 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 DE RENDRE AINST LE SYSTEME INOPERANT, RETIREZ LE VOLANT AVANT DE DEVINSSER LE BOULON D'ACCOUPLE-MENT D'ARBRE DE DIRECTION.

#### ACHTUNG SRS

UM BESCHÄDIGUNGEN DER S.R.S.-KABELROLLE ODER DES KABELS. WELCHE DAS S.R.S.-SYSTEM AUBER FUNKTION SETZEN WÜRDEN. ZU VERMEI-REN, VOR ARBEITEN AN DER LENKSPINDEL DAS LENKRAD AUSBAUEN.

WAARSCHUWING SRS OM TE VOORKOMEN DAT DE S.R.S.-KABEL OF -HASPEL BESCHADIGO WORDEN, HETGEEN ERTOE ZOU LEIDEN DAT HET SYSTEEM UITVALT, DIENT U

HET STUUR TE VERWIJDEREN VOORDAT U DE STUURSHACHT-CONNECTORBOUT VERWIJDERT.

#### (KE, KQ, KT)

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 DE RENDRE AINST LE SYSTEME INOPERANT, RETIREZ LE VOLANT AVANT DE DEVISSER LE BOULON D'ACCOUPLE-MENT D'ARBRE DE DIRECTION.

#### (KS)

#### OBSERVERA SRS

FÖR ATT UNDVIKA SKADOOR PA SRS-SYSTEMETS KABEL ELLER TRUMMA, NAGOT SOM KAN GÖRA ATT SYSTEMET INTE FUNGERAR, SKALL RATTEN TAS BORT INNAN RATTAXELNS BULT TAS BORT.

#### Varoitius SRS

SRS-kaapelin ja rullan vahingoittumisen estämiseksi, jotts järjestelmä ei menisi käyttökelvottomaksi, irrotetaan ohjauspyörä enne kuin irrotetaan ohjausvarren liittimen pultti.

#### (KY)

CAUTION SRS TO AVOID DAMAGING THE S.

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.

تحذير : (.s.R.s)

لكى تُتَجنُب اتلأف كبل نظام الكبح الاضافي (.s.R.S) أو البكرة، الذي يمكن أن يعطل تشغيل النظام، انزع عجلة القيادة قبل نزع برغي موصل جذع المقود.

J: LABEL

AIRBAG

(cont'd)

## Warning/Caution Label Locations

- (cont'd) -

K: DRIVER INFORMATION LABEL (SUNVISOR) (KF, KG, KX)

SRS ALWAYS WEAR YOUR SEAT BELT

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

CE VEHICULE EST EQUIPE D'UN COUSSIN D'AIR

- POUR LE PASSAGER AVANT, QUI CONSTITUENT UN SYSTEME DE RETENUE COMPLEMENTAIRE (S.R.S.)
- CE COUSSIN D'AIR COMPLETE LA FONCTION DE LA CEINTURE DE CECURITE.
- SI LE TEMOIN SRS S'ALLUME PENDANT LA CON-DUITE, ADRESSEZ-VOUS A VOTRE CONSSION-NARIE HONDA OFFICIEL.
- SRS SICHERHEITSUGRTE BEI JEDER FAHRT ANLEGEN
- DIESES FAHRZEUG BESITZT JE EINEN AIRBAG FÜR FAHRER UND BEIFAHRER ALS ZUSÄT-ZLICHES RÜCKHAL TESYSTEM (S.R.S.).
- DAS RÜCKHALTESYSTEM IST EINE ERGÄNZUNG ZUM SICHERHEITSGURT.
- SOLLTE WAHREND DER FAHRT DIE SRS-KONTROLLEUCHTE AUFLEUCHTEN SUCHEN SIE BITTE UNGEHEND EINEN HONDA-HÄNDLER SUF.

SRS DRAAG ALTIJD UW VEILIGHEIDSGORDEL

- DIT VOERTUIG IS UITGERUST MET AIRBAG (SRS) AAN BESTUURDERSZIJDE EN PASSAGIERSZIJDE VOOR EXTRA VEILIGHEID.
- ONTWORPEN ALS EXTRA BESCHERMING NAAST DE VEILIGHEIDSGORDELS.
- ALS HE SRS-WAARSCHUWINGSLAMPJE GAAT BRANDEN ONDER HET RIJDEN, NEEM DAN KON-TAKT OP MET EEN HONDA DEALER.

(KE, KQ, KT)

SRS ALWAYS WEAR YOUR SET BELT

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

#### (KU)

- SRS ALWAYS WEAR YOUR SET BELT
- THIS CAR IS EQUIPPED WITH A DRIVER AIRBAG AND A FRONT SEAT PASSENGER AIRBAG AS A SUPPLEMENTAL RESTRAINT SYSTEM (S.R.S.).
- IT IS DESIGNED TO SUPPLEMENT THE SEAT BELT.
- IF YOUR SRS INDICATOR LIGHTS WHILE DRIV-ING SEE YOUR AUTHORIZED ACURA DEALER.

#### (KS, KY)

SRS ALWAYS WEAR YOUR SET BELT

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

SRS ANVÄND ALLTID BILBÄLTET

- OETTA FORDOM ÄR FÖRSETTMED EN LUFT-KUDDE FÖRARSÄTET OCH EN LUFKUDDE FÖR PASSAGERASÄTET FRAM SOM ETT KOMPLET-TERANCE SKYDDSSYSTEM (S.R.S.).
- DET ÄR ÄMNAT ATT KOMPLETTERA BILBÄLTET.
- OM SRS-INDIKATORN TÄNDS UNDER KÖRNING SKALL DU KONTAKTA EN AUKTORISERAD HONDA-ATERFÖRSÄLJARE.

SRS KÄYTÄ AINA TURVAVYÖTÄ

- TÄMÄ AUTO OM VARUSTETTU AJAJAN IL-MATYYNYLLÄ JA ETUMATKUSTAJAN ILMATYY-NYLLÄ JOTKA TOIMIVAT YLIMAARAISENÅ TUKIJÄJESTELMÄMÄ.
- SE ON SUUNNITELTU TÄYDENTÄMÄÄN TUR-VAVYÖTÄ.
- JOS SRS-MERKKIVALO SYTTYY AJON AIKANA, OTTAKAA YHTEYS VALTUUTETTUUN HONDA-MYYJÄÄN.

(S.R.S.) استعمل دائما حزام المقعد

- تم تجهيز هذه السيارة بكيس هوائي لوقاية السائق كنظام كبح اضافي (S.R.S.).
  - تم تصميمه لتكميل حزام المقعد.
  - قبل القيادة، اقرأ البطاقة الموجودة بداخل لوحة التحكم.



L: INFLATOR BAM LABEL (KF, KG, KX only)

Air Bag Gas Generator UT11873 Morton International, Inc. Automotive Safety Products. Herstellungs: (jahr) Elnführer: Honda Deutschland Gmbh 6050 offenbach BAM PT1-0437		
Der Gasgenerator dart 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 Contains Flammable Solids	The gas generator should only be in- stalled in vehicles equipped with the airbag system. The gas generator is to be installed and/or disassembled only by trained personnel.	
ATTENTION Content De Solides Flammable	Le générateur de gaz ne peut être in- stallé que sur des véhicules équipés d'un systéme airbag Le montage et le démontage du générateur de gaz ne peut être effactué que par un person- nel qualifie.	

## M: PASSENGER MODULE DANGER LABEL (KF, KG, KX)

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

#### (KS, KY)

<ul> <li>DANGER EXPLOSIVE/FLAMMABLE POISON REFER TO THE SHOP MANUAL.</li> <li>FARLIGT EXPLOIVT/VÄTTANTÄNDLIGT GIFTGT SE VERKSTADBOKEN.</li> </ul>	SRS SRS
<ul> <li>ATTENTION SE VERKSTADBOKEN.</li> <li>VAARA HELPOSTI RÄJÄHTÄVÄ/SYTTYVÄ MYRKKY</li> </ul>	<u>SRS</u> • خطر :
الانفجار/سريع الالتهاب	سريع
	سام
الى دليل التسويق	ارجع

(cont'd)

### – (cont'd) ––––

#### M: PASSENGER MODULE DANGER LABEL (KE, KQ, KT, KU)

A DANGER	
EXPLOSIVE/FLAMMABLE	EXPLOSIBLE/INFLAMMABLE
Contact with acid, water or heavymetals such as copper,	Tout contact avec l'acide, l'eau ou des métaux lourds com-
lead or mercury may produce harmful and irritating gases or explosive compounds. Storage temperatures must not exceed 200 °F (100 °C). For proper handling, storage and disposal procedure refer to Service (Shop) Manual, SRS supplement. POISON Contains poisonous sodium azide and potassium nitrate. FIRST AID If contents are swallowed, induce vomiting. For eye con- tact, flush eyes with water for 15 minutes. If gases (from acid or water contact) are inhaled, seek fresh air, in every case, get prompt medical attention. KEEP OUT OF REACH OF CHILDREN	me le cuivre, le plomb ou le mercure risque de produire des gaz nocifs et irritants ou des composés explosifts. Les tem- pératures de rangement ne devront pas dépasser 200 °F (100 °C). Pour les procédures de manipulation, de range- ment et de mise au rebut, voir le suplément SRS du manuel d'entrien. POISON Renferme de l'acide de soude et du nitrate de potassium toxiques. PREMIERS SECOURS Si le contenu est absorbé, induire un vomissement. En cas de contactavec les yeux, laver à grande eau pendant un quart d'heure. En cas d'inhalation des gaz (par contact avec l'acide ou l'eau). Aller à l'air frais. Dans tous le cas, ob- tenir promptement des soins médicaux. TENIR HORS DE PORTÉE DES ENFANTS.
<ul> <li>WARNING</li> <li>The airbag inflator is explosive and, if accidentally deployed, can seriously hurt or kill you.</li> <li>Do not use electrical test equipment or probing devices. They can cause accidental deployment.</li> <li>No serviceable parts inside. Do not disassemble.</li> <li>Place airbag upright when removed.</li> <li>Follow Service (Shop) Manual instructions carefully.</li> </ul>	<ul> <li>ATTENTION</li> <li>Le gonfleur de conssin d'air est explosible et s'il se déploie accidentellement, il risque de provoquer des blessures graves ou de tuer.</li> <li>Ne pas utiliser de matériel d'essai électrique ni de sonde. Ils pourraient provoquer un déploiment accidentel du coussin d'air.</li> <li>Il n'y a pas de pièces réparables à l'intérieur. Ne pas démonter.</li> <li>Quand on retire le coussin d'air, le tenir à la verticale.</li> <li>Suivre attentivement les instructions du manuel d'entretien.</li> </ul>



N: INFLATOR CAUTION LABEL (KF, KG, KX)

#### ACHTUNG SRS AUM SCHUTZ VOR UNBEABSICHTIGTER AUSLOSUNG UND MOGLICHEN VERLETZUNGEN: BEI ANSCHLUSS DES KURZSCHLUSSICHERUNGES STECKERS AN DEN GASGENERATORSTECKER IMMER DEN KABELBAUM ABTRENNEDN.

WAARSCHUWING SRS OM TE VOORKOMEN DAT HET SYSTEEM PER ONGELUK IN BEDRIJF WORDT GESTELD EN OM VERWONDINGEN TE VOORKOMEN, DIENT U DE BESCHERMENDE KORTE CONNECTOR OP DE VULINRICHTINGCONNECTOR UITSLUITEND TE INSTALLEREN WANNEER DE DRAADBOOM IS LOSGEKOPPELD.

#### (KE, KQ, KT, KU)

Accidental airbag deployment can seriously hurt or kill you.

Install the red service connector when the inflator harness is disconnected.

#### **ATTENTION**

Tout déploiement accidentel du coussin d'air risque de provoquer des blessures graves ou de tuer. Quand le faisceau de fils du gonfleur est déconnecté, installer le connecteur d'entretien rouge.

#### (KS)

VARNING <u>SRS</u> FÖR ATT FÖRHINDRA OAVSIKTLIG UTLÖSNING OCH TÄNKBARA SKADOR: SÄTT ALLTID DET SKYDDANDE KORT-SLUTNINGSSTIFTET PA TRYCKPUMPSKONTAKTEN

NÄR KABELANÄTET LOSSAS.

Varoitus <u>SRS</u> Estää vahingollisen käytön ja mahdollisen vahingoittumisen:

Asenna aina suojaava lyhyt liitin pumpun liittimeen silloin kun haarniska on irti.

#### (KY)

WARNING SRS

TO PREVENT ACCIDENTAL DEPLOYMENT AND POSSIBLE INJURY: ALWAYS INSTALL THE PROTECTIVE SHORT

CONNECTOR ON THE INFLATOR CONNECTOR WHEN THE HARNESS IS DISCONNECTED.

تنبيه : (.S.R.S) لكي تمنع حدوث الانتشار العرضي أو الضرر المحتمل. قم دائما بتركيب الموصل القصير على موصل النافخ عند فصل الأحزمة.

**O: PRETESIONER ELR CAUTION LABEL** 

#### A WARNING

EXPROSIVE MATERIAL INSIDE

You can be seriously hurt or burned.

- Install red short connector when wire harness is disconnected.
- Do not tamper or disassemble. No serviceable parts inside.
- Use only approved electrical testers for circuit diagnosis.
- Refer to Service (Shop) Manual for complete instractions.

#### **ATTENTION**

MATÉRIEL EXPROSIF Á L'INTÉRIEUR

Vous pouvez subir des blessures ou des brûlures graves.

- Mettre le connecteur rouge court en place quand le faisceau de fils est débranché.
- Ne pas modifier ou demonter. Ne comprend aucune pléce interne á entretenir.
- N'utiliser que des appareils de vérification approuvés pour le diagnostic du circuit.
- Consulter le Manuel d'entretien pour les directives comlétes.

(cont'd)

## Warning/Caution Label Locations

### · (cont'd) –

#### **P: PRETENSIONER POWER SOURCE CAUTION LABEL**

シートベルト	取り外し、分離禁止、取り扱いは
プリテンショナー	サービスマニュアル参照の事.
SEAT BELT TENSIONER	Do not tamper, Refer to service (shop) manual for complete in- structions.
ENROULEUR	Ne pas modifier. Consulter le
DE CEINTURE	Manuel d'entretien pour les direc-
DE SÉCURITÉ	tives complétes.

## Q: PRETENSIONER POWER SOURCE BAM LABEL (Except KY)

P/T PWR SOURCE-BGO NIPPON KOKI SHIRAKAWA JAPAN Herstel lungsjahr: 1991 Einführer: Honda Deutschland Gmbh/offenbach

#### BAM PT1-0380

Der Gasgenertor darf nur für Insassen-Rückhaltesysteme mit Gurstraffereinhelten in Kraftfahrzeuge montiert werden.

Die Montage und Demontage des Gasgenertors darf nur von dafür geschuitem Personal vorgenommen werden.

#### **R: SRS MONITOR CAUTION LABEL**

(Except KS, KY)

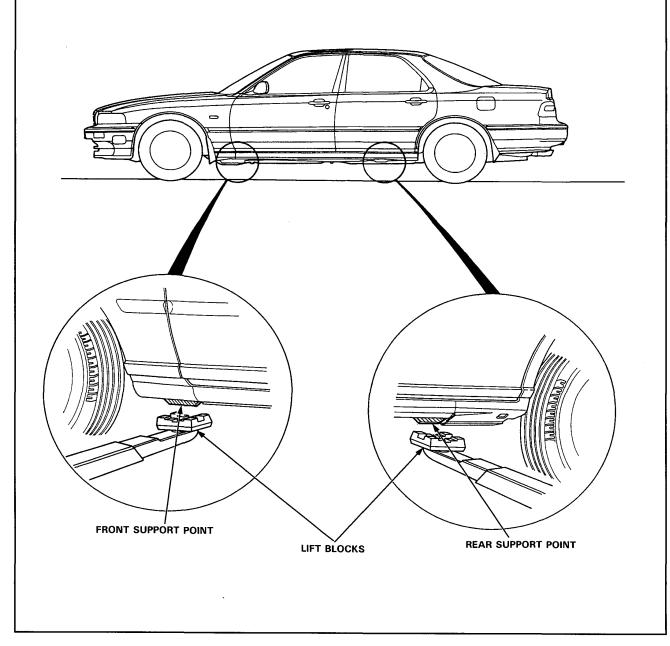
SRS CAUTION • NO SERVICEABLE PARTS INSIDE. • DO NOT DISASSEMBLE OR TAMPER. • DO NOT DROP. STORE IN A CLEAN DRY AREA. 注意 ●分解しないでください. ●乾燥したクリーンな場所に保管してください. ● 落としたり、濡らしたりしないでください. ATTENTION AUCUN POINT D'INTERVENTION A L'INTERIEUR. • NE PAS DEMONTER OU TOUCHER. • NE PAS FAIRE TOMBER. • RANGER DANS UN ENDROIT PROPRE ET SEC. WAARSCHUWING BINNENIN BEVINDEN ZICH GEEN OHDERDELEN DIE AAN ONDERHOUD ONDERHEVIG ZIJH. • DEMONTEER NIETS EN KNCEI NIET AAN DE S.R.S. • LAAT DE S.R.S. NIET VALLEN. ACHTUNG • WARTUNGSFREIES BAUTEIL: NICHT ÖFFNEN, ZERLEGEN, ODER VERÄNDERN! • NICHT WERFEN! TROCKEN UND GESCHÜTZT LAGERN! (KS, KY) CAUTION SRS • NO SERVICEABLE PARTS INSIDE. • DO NOT DISASSEMBLE OR TAMPER. • DO NOT DROP. STORE IN A CLEAN DRY AREA. **OBSERVERA** SRS • DET FINNS INGA INRE DELAR DU SJÄJV KAN REPARERA. FÖRSÖK INTE TA ISÄR ELLER ÄNDRA. • TAPPA INTE I GOLVET. • FÖRVARA PÅ EN REN OCH TORR PLATS. SRS Varoitus • Ei huollettavia osia sisällä. • Älä pura äläkä tuki. Älä pudota. Varastoi puhtaassa, kuivassa paikassa. تحنير: (.s.R.S) لا توجد أجزاء يمكن صيانتها بالداخل. • لا تفتح أو تعبث. لا تسقطه على الأرض. خزنه في مكان نظيف، وجاف.

## Lift and Support Point



### · Lift -

- 1. Place the lift blocks as shown.
- 2. Raise the lift until the tyres are slightly off the ground and rock the car to be sure it is firmly supported.
- 3. Raise the lift to full height and inspect lift points for solid support.



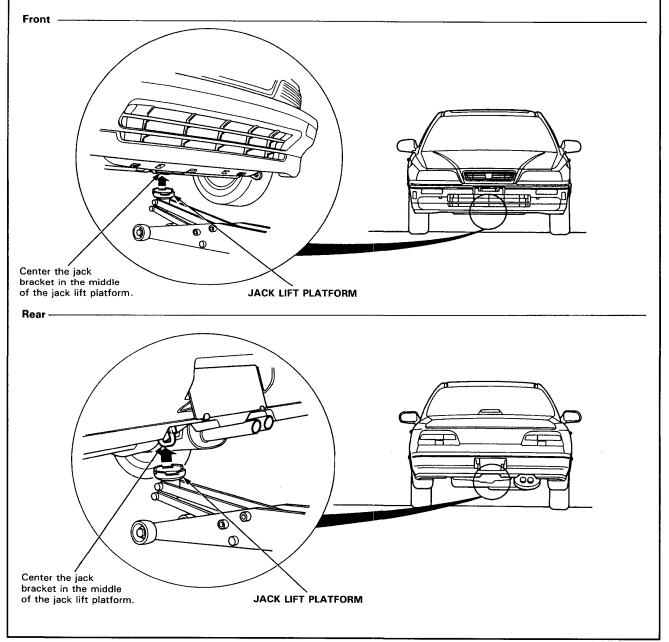
## Lift and Support Points

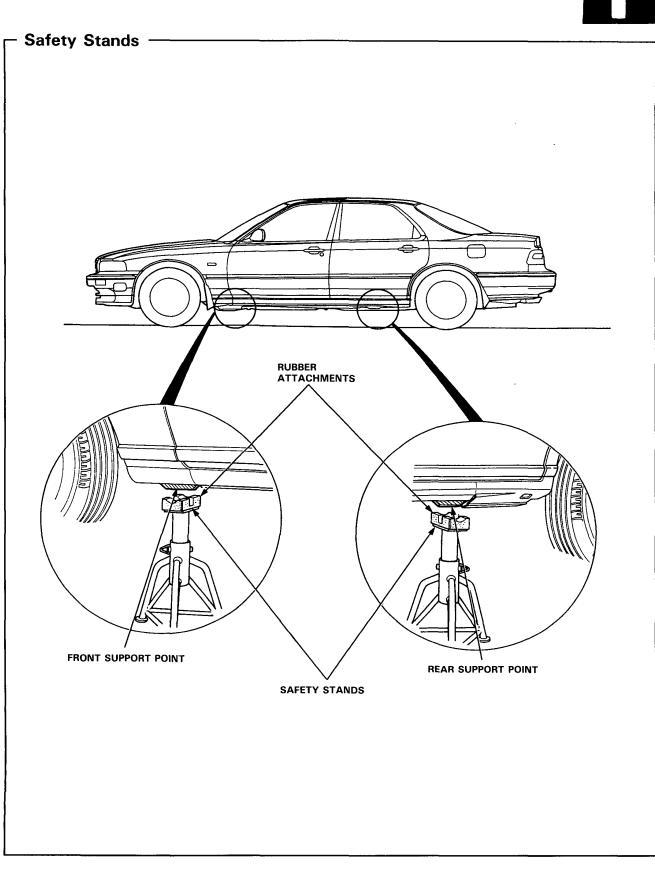
### - Floor Jack

- 1. Set the parking brake and block the wheels that are not being lifted.
- 2. When lifting the rear of the car, put the gearshift lever in reverse (Automatic in P position).
- 3. Raise the car high enough to insert the safety stands.
- 4. Adjust and place the safety stands as shown on page 1-21 so the car will be approximately level, then lower the car onto them.

#### A WARNING

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





## Towing

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

#### **Emergency Towing**

There are three popular methods of towing a car:

 $\mbox{Flat-bed Equipment}$  — The operator loads the car on the back of a truck. This is the best way of transporting the LEGEND.

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

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

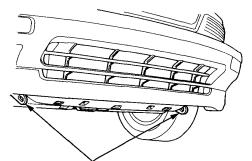
If the LEGEND cannot be transported by flat-bed, it should be towed with the front wheels off the ground. If, due to damage, the car must be towed with the front wheels on the ground, do the following:

- Release the parking brake.
- Shift the 5-speed transmission to Neutral.
- If the car has an automatic transmission, start the engine. Shift the transmission to D4 position, then into N position, then shut off the engine.

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

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

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



TOWING HOOK and TIE DOWN BRACKETS

## **Preparation of Work** — Handling of Special Nuts and Bolts

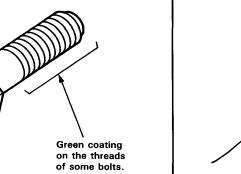
Because the front sub frame sections on this car are constructed with aluminum alloys, use only the special "Dacro" type nuts and bolts recommended by Honda.

NOTE:

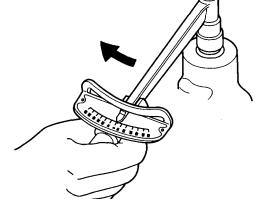
Gray plating

- Dacro finish can be identified by gray plating.
- Some Dacro finish bolts have a green coating on the thread section of the bolt for easier application. This type of bolt is called a "Torquer" bolt.
- Use of other types of nuts and bolts may cause electrolysis and corrosion, which in turn could cause the bolt to loosen.

- 1. When replacing nuts and bolts, use only the same type.
- 2. Tighten the nuts and bolts with a torque wrench to the specifications provided in this manual.
- 3. Clean all thread ridges with a non wire type bristle brush. Foreign matter in the threads may cause the bolt to loosen.
- Sections on this car requiring the use of Dacro nuts and bolts wilkl be indicated by a (☆) in this manual.

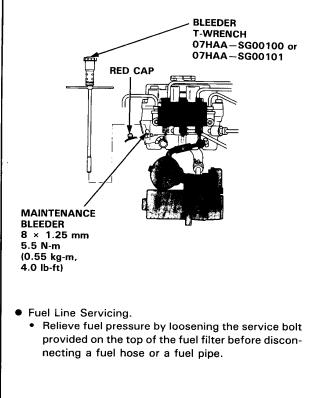


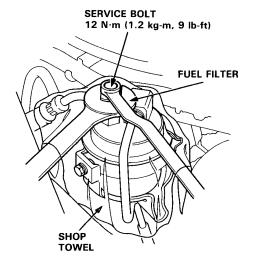
Gray plating: "Dacro" type Gray plating + Green coating on the threads: "Torquer" type



## 

- Anti-lock brake piping system servicing.
  - Disassemble the Anti-lock brake piping system after relieve the high-pressured brake fluid.
  - Otherwise, the high-pressured brake fluid will burst out and it is very dangerous.
  - Refer to the Base Shop Manual (62SP000) section 19 how to relieve the high-pressured brake fluid.

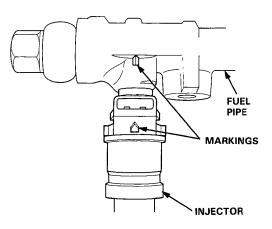




- Be sure to replace washers, O-rings, and rubber seals with new ones when servicing fuel line parts.
- Always apply oil to the surfaces of O-rings and seal rings before installation. Never use brake fluid, radiator fluid, vegetable oils or alcohol-based oils.



- When assembling the flare joint of the high-pressure fuel line, clean the joint and coat with new engine oil.
- When installing an injector, check angle of the coupler. The center line of the coupler should align with the setting mark on the injector holder.



- Inspection for fuel leakage.
  - After assembling fuel line parts, turn ON the ignition switch (do not not operate the starter) so that the fuel pump is operated for approximately two seconds and the fuel is pressurized. Repeat this operation two or three times and check whether any fuel leakage has occurred in any of the various points in the fuel line.

Installation of an amateur radio for cars equipped with PGM-F1.

Care has been taken for the Fuel-Injection, A/T, Cruise control and Anti-lock brake system control units and its wiring to prevent erroneous operation from external interference, but erroneous operation of the control units may be caused by entry of extremely strong radio waves. Attention must be paid to the following items to prevent erroneous operation of the control units.

 The antenna and the body of the radio must be at least 200 mm (7.9 in.) away from the control units. The control unit locations:

- Refer to the Base Shop Manual (62SP000) section 23 for Relay/Control Unit Locations.
- Do not lead the antenna feeder and the coaxial cable over a long distance parallel to the car's wiring. When crossing the wiring is required, execute crossing at a right angle.
- Do not install a radio with a large output (max. 10 W).
- Apply liquid gasket to the transmission, oil pump, rear cover and water outlet.

Use HONDA genuine liquid gasket Part No. OY740-99986.

- Check that the mating surfaces are clean and dry before applying liquid gasket. Degrease the mating surfaces if necessary.
- Apply liquid gasket evenly, being careful to cover all the mating surface.
- To prevent leakage of oil, apply liquid gasket to the inner threads of the bolt holes.
- Do not apply liquid gasket to the O-ring grooves.
- Do not install the parts if 20 minutes or more have elapsed since applying liquid gasket. Instead, reapply liquid gasket after removing the old residue.
- Wait at least 30 minutes before filling with appropriate liquid (engine oil, coolant and similar fluids).

## CAUTION: Observe all safety precautions and notes while working.

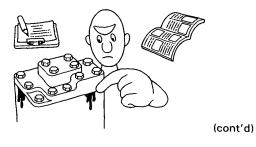
 Protect all painted surfaces and seats against dirt and scratches with a clean cloth or vinyl cover.



Work safely and give your work your undivided attention. When either the front or rear wheels are to be raised, block the remaining wheels securely. Communicate as frequently as possible when a work involves two or more workers. Do not run the engine unless the shop or working area is well ventilated.



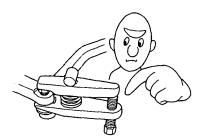
 Prior to removing or disassembling parts, they must be inspected carefully to isolate the cause for which service is necessary. Observe all safety notes and precautions and follow the proper procedures as described in this manual.



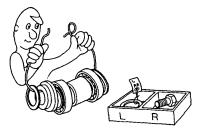
## **Preparation of Work**

## – (cont'd) ––––

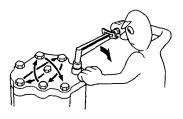
• Use the special tools when use of such is specified.



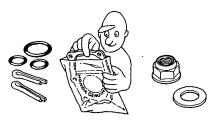
 Mark or place all removed parts in order in a parts rack so they can be reassembled in their original places.



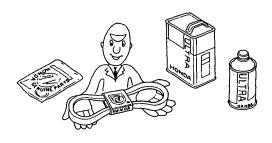
- Parts must be assembled with the proper torque according to the maintenance standards established.
- When tightening a series of bolts or nuts, begin with the center or larger diameter bolts and tighten them in crisscross pattern in two or more steps.



• Use new packings, gaskets, O-rings and cotter pins whenever reassembling.



• Use genuine HONDA parts and lubricants or those equivalent. When parts are to be reused, they must be inspected carefully to make sure the are not damaged or deteriorated and are in good usable condition.



• Coat or fill parts with specified grease as specified (page 4-2). Clean all removed parts with solvent upon disassembly.



## **Symbol Marks**

 Brake fluid and hydraulic components. The following symbols stand for: When replenishing the system, use extreme care to prevent dust and dirt from entering the system. · Do not mix different brands of fluid as they may not be compatible. : Apply engine oil. Do not reuse drained brake fluid. Brake fluid can cause damage to painted surfaces. Wipe up spilled fluid at once. After disconnecting brake hoses or pipes be sure to plug the openings to prevent loss of brake fluid. Apply brake fluid. Clean all disassembled parts only in clean BRAKE FLUID. Blow open all holes and passagas with compressed air. Keep disassembled parts from air-borne dust and GREASE : Apply grease. abrasives. · Check that parts are clean before assembly. : Apply Honda Premium Formula Automatic Transmission Fluid or an equivalent DEXRON® II Automatic Transmission Fluid. : Apply Power Steering Fluid. Apply or check vacuum. (1), (2), (3), ..... : Sequence for removal or installation. Avoid oil or grease getting on rubber parts and tubes, unless specified. • Upon assembling, check every part for proper installation and operation.

# Abbreviations

ABS	Anti-lock Brake System	PGM-FI	Programmed Fuel-Injection
A/C	Air Conditioner	P/S	Power Steering
API	American Petroleum Institute	R.	Right
A/T	Automatic Transmission	RHD	Right Hand Drive
ATF	Automatic Transmission Fluid	SAE	Society of Automotive Engineers
B or BAT	Battery	SW	Switch
BTDC	Before Top Dead Center	SOHC	Single Overhead Camshaft
САТА	Catalytic Converter	SOL. V	Solenoid Valve
CPC	Clutch Compressor Control	SRS	Supplemental Restraint System
EACV	Electronic Air Control Valve	TDC	Top Dead Center
ECU	Electronic Control Unit for Fuel-Injection	VIN	Vehicle Identification Number
	System and/or Automatic Transmission Control System	Ρ	Parking
EGR	Exhaust Gas Recirculation	R	Reverse
EX	Exhaust	Ν	Neutral
GND	Ground	D4	Drive Position (1st-4th)
I.D.	Inside Diameter	D3	Drive Position (1st-3rd)
IG	Ignition	2	Fixed 2nd speed
IN	Intake	1	Fixed 1st speed
INT	Intermittent	1ST	Low (gear)
L	Left	2ND	Second (gear)
LHD	Left Hand Drive	3RD	Third (gear)
M/T	Manual Transmission	4TH	Fourth (gear)
0.D.	Outside Diameter	5TH	Fifth (gear)
PCV	Positive Crankcase Ventilation		



## **Special Tools**

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

# specs

## **Specifications**

Standards and Service Limits	3-2
Design Specifications	3-15
Body Specifications	3-18

## **Standards and Service Limits**

	MEASUREMENT           200 min <sup>-1</sup> (rpm) and wide open throttle         Nominal Minimum Maximum variation		STANDARD (NEW)	SERVICE LIMIT
Compression			1,350 kPa (13.5 kg/cm², 192 psi) 1,000 kPa (10.0 kg/cm², 142 psi) 200 kPa (2.0 kg/cm², 28psi)	
Cylinder head	Warpage Height		_ 99.95—100.05 (3.935—3.939)	0.05 (0.002)
Camshaft	End play Camshaft-to-holder oil clearance Total runout Cam lobe height	① IN EX ② IN EX	0.05-0.15 (0.002-0.006) 0.050-0.089 (0.0020-0.0035) 0.03 (0.001) 40.118 (1.5794) 37.766 (1.4868) 40.005 (1.5750) 37.766 (1.4868)	0.15 (0.006) 0.10 (0.004) 0.04 (0.002) - - - =
Valve	Valve clearance Valve stem O.D. Stem-to-guide clearance	IN EX IN EX IN EX	0 (Hydraulic tappets, Auto-adjuster type) 0 (Hydraulic tappets, Auto-adjuster type) 5.48 – 5.49 (0.2157 – 0.2161) 5.45 – 5.46 (0.2146 – 0.2150) 0.02 – 0.05 (0.001 – 0.002) 0.05 – 0.08 (0.002 – 0.003)	- 5.45 (0.215) 5.42 (0.213) 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) 46.935-47.425 (1.8478-1.8671) 47.885-48.375 (1.8852-1.9045)	2.0 (0.08) 2.0 (0.08) 47.625 (1.8750) 48.575 (1.9124)
Valve spring	Free length	IN EX	50.16 (1.9748) *1 50.17 (1.9752) *2 50.36 (1.9827)	- - -
Valve guide	I.D. Installed height	IN and EX IN and EX	5.51-5.53 (0.217-0.218) 15.75-16.25 (0.620-0.640)	5.55 (0.219) —
Rocker arm	Arm-to-shaft clearance		0.018-0.054 (0.0007-0.0021)	0.08 (0.003)

Except KQ, KY, KT
 KQ, KY, KT
 KQ, KY, KT
 NIHON HATSUJO manufactured valve spring

\*2: CHUO HATSUJO manufactured valve spring



#### Unit of length: mm (in)

	MEASUREMENT		STANDARD (NEW)	SERVICE LIMIT
Cylinder block	Warpage of deck surface Bore diameter Bore taper Reboring limit		0.07 (0.003) max. 90.00-90.02 (3.543-3.544) - -	0.10 (0.004) 90.07 (3.546) 0.05 (0.002) 0.5 (0.02)
Piston	Skirt O.D. at 17.0 mm (0.67 bottom of skirt Clearance in cylinder Groove width (for ring)	in) from No Letter (A) B Top Second Oil	89.980-89.990 (3.5425-3.5429) 89.970-89.980 (3.5421-3.5425) 0.02-0.04 (0.001-0.002) 1.22-1.23 (0.0480-0.0484) 1.22-1.23 (0.0480-0.0484) 2.805-2.820 (0.1104-0.1110)	89.970 (3.5421) 89.960 (3.5417) 0.08 (0.003) 1.25 (0.0492) 1.25 (0.0492) 2.85 (0.1122)
Piston ring	Ring-to-groove clearance	Top Second	0.035-0.060 (0.0014-0.0024) 0.030-0.055 (0.0012-0.0022)	0.13 (0.005) 0.13 (0.005)
	Ring end gap	Top Second Oil	0.25-0.40 (0.010-0.016) 0.40-0.55 (0.016-0.022) 0.20-0.70 (0.008-0.028)*1 0.20-0.50 (0.008-0.020)*2	0.70 (0.028) 0.85 (0.033) 0.80 (0.031) 0.80 (0.031)
Piston Pin	O.D. Pin-to-piston clearance		21.994-22.000 (0.8659-0.8661) 0.012-0.024 (0.0005-0.0009)	-
Connecting rod	Pin-to-rod interference Small end bore diameter Large end bore diameter Nominal End play installed on crankshaft Small end bore-to-large end bore parallelism		0.013-0.032 (0.0005-0.0013) 21.968-21.981 (0.8649-0.8654) 57.00 (2.244) 0.15-0.30 (0.006-0.012) 0.12/100 max.	   0.15/100
Crankshaft	Main journal diameter Rod journal diameter Taper Out-of-round End play Total runout		67.967-68.000 (2.6762-2.6772) 53.970-53.994 (2.1248-2.1257) 0.005 (0.0002) max. 0.004 (0.0002) max. 0.10-0.29 (0.004-0.011) 0.020 (0.0008) max.	- 0.010 (0.0004) 0.010 (0.0004) 0.45 (0.018) 0.030 (0.0012)
Bearings	Main bearing-to-journal oil clearance Rod bearing-to-journal oil clearance		0.020-0.044 (0.0008-0.0017) 0.022-0.046 (0.0009-0.0018)	0.05 (0.002) 0.05 (0.002)

\*1: RIKEN manufactured piston ring \*2: TEIKOKU PISTON RING manufactured piston ring

### - Engine Lubrication - Section 8 ------

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT	
Engine oil	Capacity ℓ (US qt, Imp qt)	5.0 (5.3, 4.4) for engine overhau 4.7 (5.0, 4.1) for oil change, inc 4.0 (4.2, 3.5) for oil change, exc	4.1) for oil change, including filter	
Oil pump	Inner-to-outer rotor radial clearance Housing-to-outer rotor radial clearance Housing-to-rotor axial clearance	0.04-0.16 (0.002-0.006) 0.10-0.18 (0.004-0.007) 0.02-0.07 (0.001-0.003)	0.20 (0.008) 0.20 (0.008) 0.12 (0.005)	
Relief valve	Pressure setting at oil temperature 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.		

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## **Standards and Service Limits**

### - Cooling - Section 10 -

	MEASUREMENT	STANDARD (NEW)	
Radiator Coolant capacity ℓ (US qt, Imp qt) (Including engine, heater, cooling) line and reservoir Reservoir capacity: 0.65 ℓ (0.69US qt, 0.57 Imp qt)		M/T: 8.7 (9.2, 7.7) for overhaul 7.5 (7.9, 6.6) for coolant change A/T: 8.7 (9.2, 7.7) for overhaul 7.5 (7.9, 6.6) for coolant change	
Radiator cap	Opening pressure kPa (kg/cm <sup>2</sup> , psi)	95-125 (0.95-1.25, 13.5-17.8)	
Thermostat	Start to open °C (°F) Fully open °C (°F) Valve lift at fully open	76—80 (169—176) 90 (194) 10 (0.4) min.	
Cooling fan	Radiator fan control sensor "ON" temperature (LOW) °C(°F) Radiator fan control sensor "OFF" temperature (LOW) °C(°F) Radiator fan control sensor "ON" temperature (HIGH) °C(°F) Radiator fan control sensor "ON" temperature (HIGH) °C(°F)	82.8-85.2 (181-185) 76.0-80.0 (169-176) 88.7-91.3 (192-196) 82.0-86.0 (180-187)	

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#### Fuel and Emission — Section 11 —

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	MEASUREMENT	STANDARD (NEW) SERVICE LIN	
Fuel pump	Displacement ml (fl oz, Imp oz) in 10 seconds	230 (7.78, 8.10) min. 130 (4.40, 4.5	
	Relief valve opening pressure kPa (kg/cm <sup>2</sup> , psi)	450-600 (4.5-6.0, 64.0-85.3)	
Pressure regulator	Pressure with regulator vacuum hose disconnected kPa (kg/cm <sup>2</sup> , psi)	270-320 (2.7-3.2, 38-46)	
Fuel tank	Capacity ℓ (US gal, Imp gal)	68 (18.0, 15.0)	
Engine	Fast idle speed min <sup>-1</sup> (rpm) at 25°C (77°F)	1,500±200	
	Idle speed min <sup>-1</sup> (rpm) (with headlight and cooling fan off)	M/T 650±50 A/T 600±50 (N or P position)	
	Idle CO %	With CATA: 0.1 max. Without CATA: 1.0±1.0	

#### Clutch - Section 12 -MEASUREMENT STANDARD (NEW) SERVICE LIMIT Clutch pedal Clutch pedal height to floor 199.5 (7.85) \_ Stroke at pedal 139 (5.47) \_ Total clutch pedal free play (include the pedal play) 9-15 (0.35-0.59) \_ Pedal play 1.0 - 7.0 (0.04 - 0.28)----Disengagement height to floor 90 (3.5) min. \_\_\_\_\_ Flywheel Clutch surface runout 0.05 (0.002) max. 0.15 (0.006) Clutch disc Rivet head depth 1.5 (0.06) min. 0.5 (0.02) Surface runout 0.6 (0.02) max. 0.8 (0.03) 9.6-10.3 (0.38-0.41) Thickness 6.8 (0.27) Pressure plate Warpage 0.03 (0.001) max. 0.15 (0.006)



### Unit of length: mm (in)

### Manual Transmission – Section 13 –

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission oil	Capacity ℓ (US qt, Imp qt)	2.6 (2.7, 2.3) for overhaul 2.3 (2.4, 2.0) for oil change	
Mainshaft	End play Diameter of bearing contact area Clutch housing side Transmission housing side Transmission cover side 3rd gear (needle bearing) Runout	0.183-0.375 (0.007-0.015) 27.977-27.990 (1.1015-1.1020) 30.987-31.000 (1.2200-1.2205) 27.987-28.000 (1.1018-1.1024) 37.989-38.000 (1.4956-1.4961) 0.02 (0.001) max.	0.525 (0.021) 27.930 (1.0996) 30.940 (1.2181) 27.937 (1.0999) 37.935 (1.4935) 0.05 (0.002)
Countershaft	End play Diameter of bearing contact area Clutch housing side Transmission housing side Transmission cover side Runout	0.173-0.340 (0.007-0.013) 33.000-33.015 (1.2992-1.2998) 31.975-31.988 (1.2589-1.2594) 27.987-28.000 (1.1018-1.1024) 0.02 (0.001) max.	0.490 (0.019) 32.950 (1.2972) 31.928 (1.257) 27.937 (1.0999) 0.05 (0.002)
Reverse idler shaft	Diameter bearing contact area	19.989-20.000 (0.7870-0.7874)	19.93 (0.785)
Reverse drive gear	1.D. Thickness	25.007-25.020 (0.9845-0.9850) 26.45-26.50 (1.041-1.043)	25.078 (0.9873) 26.38 (1.039)
Mainshaft 3rd gear	I.D. Thickness End play (when tightening by specified torque)	44.009-44.025 (1.7326-1.7333) 31.39-31.47 (1.236-1.239) 0.06-0.19 (0.002-0.008)	44.080 (1.735) 31.32 (1.233) 0.30 (0.012)
Mainshaft 4th gear	I.D. Thickness End play (when tightening by specified torque)	44.009-44.025 (1.7326-1.7333) 29.39-29.47 (1.157-1.160) 0.06-0.19 (0.002-0.008)	44.080 (1.735) 29.32 (1.154) 0.30 (0.012)
Mainshaft 5th gear	I.D. Thickness End play (when tightening by specified torque)	44.009-44.025 (1.7326-1.7333) 29.39-29.47 (1.157-1.160) 0.06-0.19 (0.002-0.008)	44.080 (1.735) 29.32 (1.154) 0.30 (0.012)
Distance collar	I.D. Diameter of needle bearing contact area Thickess of needle bearing contact area	30.992-31.002 (1.2202-1.2205) 37.989-38.000 (1.4956-1.4961) 29.56-29.61 (1.164-1.166)	31.050 (1.2224) 37.940 (1.494) 29.54 (1.163)
Countershaft 1st gear	I.D. Thickness End paly (when tightening by specified torque)	53.010-53.029 (2.0870-2.0878) 35.92-36.00 (1.414-1.417) 0.04-0.10 (0.002-0.004)	53.081 (2.0898) 35.85 (1.411) Adjust with a shim
Countershaft 2nd gear	I.D. Thickness End paly (when tightening by specified torque)	53.010-53.029 (2.0870-2.0878) 35.92-36.00 (1.414-1.417) 0.04-0.10 (0.002-0.004)	53.081 (2.0898) 35.85 (1.411) Adjust with a colla

(cont'd)

### **Standards and Service Limits**

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT	
Distance collar (countershaft 2nd gear)	I.D. O.D. Thickness A B	37.950-37.960 (1.4941-1.4945) 46.989-47.000 (1.8500-1.8504) 36.03-36.05 (1.419-1.419) 36.07-36.09 (1.420-1.421)	38.008 (1.496) 46.940 (1.848) Adjust with a collar	
Countershaft reverse gear	O.D. Thickness	46.989-47.000 (1.8500-1.8504) 50.45-50.55 (1.986-1.990)	46.94 (1.848) 50.38 (1.983)	
Synchro ring	Ring-to-gear clearance (ring pushed against gear)	0.85-1.10 (0.033-0.043)	0.4 (0.02)	
Double cone synchro ring	Clearance (ring pushed against gear) Outer synchro ring-to-gear Synchro cone-to-gear Outer synchro ring-to-synchro cone	0.95-1.68 (0.037-0.066) 0.5-1.0 (0.02-0.04) 0.5-1.0 (0.02-0.04)	0.6 (0.02) 0.3 (0.01) 0.3 (0.01)	
Shift fork 1st/2nd 3rd/4th and 5th	Finger thickness Finger-to-synchro sleeve clearance	7.4–7.6 (0.29–0.30) 0.35–0.65 (0.014–0.026)	1.00 (0.039)	
Reverse shift fork	Finger thickness Finger-to-reverse synchro sleeve clearance Groove width Fork-to-reverse shift arm clearance	6.4-6.6 (0.25-0.26) 0.35-0.65 (0.014-0.026) 13.20-13.30 (0.520-0.524) 0.20-0.50 (0.008-0.020)	- 1.00 (0.039) - 0.8 (0.031)	
Shift fork shaft	Shat-to-shift piece clearance Groove width of the shift piece contact point	0.25-0.55 (0.010-0.022) 12.20-12.40 (0.480-0.488)	0.85 (0.033)	
Shift arm	Diameter (at the contact point with the change piece) Arm-to-change piece clearance Diameter (at the contact point with the shift piece) Arm-to-shift piece clearance	7.9-8.0 (0.311-0.315) 0.1-0.3 (0.004-0.012) 7.9-8.0 (0.311-0.315) 0.1-0.3 (0.004-0.012)	 0.55 (0.022)  0.55 (0.022)	
Change piece	Groove width of the shift arm contact point	8.1-8.2 (0.319-0.323)	-	
Shift piece	Groove width of the shift fork shaft or shift fork contact point Diameter (at the contact point with the shift fork shaft)	0.25-0.55 (0.010-0.022) 11.85-11.95 (0.467-0.470)	0.85 (0.033)	
Reverse shift holder	Diameter (at the contact point with the reverse shift fork) Diameter (at the contact point with the 5th/reverse shift fork shaft)	12.80-13.00 (0.504-0.512)     -       12.80-13.00 (0.504-0.512)     -		
Secondary gear Backlash Preload (starting torque) N·m (kg-cm, lb-in) Diameter of bearing contact area Clutch housing side Transmission housing side Diameter of oil seal contact area Clutch housing side Transmission housing side		$\begin{array}{c} 0.061-0.121 & (0.0024-0.0048) \\ 1.4-2.6 & (14-26, 12.2-22.6) \\ 55.002-55.021 & (2.1654-2.1662) \\ 45.002-45.018 & (1.7717-1.7724) \\ 54.894-54.940 & (2.1612-2.1630) \\ 44.911-44.950 & (1.7681-1.7697) \end{array}$	Adjust with a shim  	
Extension shaft	Diameter of oil seal contact area	37.438-37.500 (1.4739-1.4764)	-	
Oil pump	Clutch housing-to-outer rotor clearance Inner-to-outer rotor clearance Clutch housing-to-rotor axial clearance	0.03-0.13 (0.001-0.005)         0.18 (0.007)           0.14 (0.006)         0.2 (0.01)           0.10-0.20 (0.004-0.008)         0.22 (0.009)		



Unit of length: mm (in)

SERVICE LIMIT

STANDARD (NEW)

	INIEASURCIVIEN I	STANDARD (NEW)	SERVICE LIVIT
Transmission fluid	Capacity ℓ (US qt, Imp qt)	8.7 (9.2, 7.7) for overhaul 3.3 (3.5, 2.9) for oil change	
Hydraulic pressure	Line pressure at 2,000 min <sup>-1</sup> (rpm) (N or P position)	800-860 (8.0-8.6, 114-122)	750 (7.5, 107)
kPa (kg/cm², psi)	1st clutch pressure at 2,000 min <sup>-1</sup> (rpm (D4 , D3 or 1 position)	)	
	2nd clutch pressure at 2,000 min <sup><math>-1</math></sup> (rpr $(D_4)$ position)	n) 400 (4.0, 57) throttle fully closed	380 (3.8, 54) throttle fully closed
	3rd clutch pressure at 2,000 min <sup>-1</sup> (rpm (D4 position)	n)   860 (8.6, 122) throttle more than	750 (7.5, 107) throttle more than
	4th clutch pressure at 2,000 min <sup>-1</sup> (rpm (D4 position)	1/4 opened	1/4 opened
	1st-hold clutch presure at 2,000 min <sup>-1</sup> (1 or 2 positon)		750 (7.5, 107)
	2nd clutch pressure at 2,000 min <sup>-1</sup> (rpr (1) or 2 positon)		
	Reverse clutch pressure at 2,000 min <sup>-1</sup> (R position)	(11.9–12.7, 169–181)	1,150 (11.5, 164)
	Throttle B pressure Throttle fully clos Throttle fully ope		
Stall speed min <sup>-1</sup> (rpm)	Check with car on level ground	1,850-2,150	-
Clutch	Clutch initial clearnace 1st-hold	0.7 - 0.9 (0.028 - 0.035)	-
	1st 2nd, 3rd	$\begin{array}{c} 0.65 - 0.85 & (0.026 - 0.033) \\ 0.6 - 0.8 & (0.024 - 0.031) \end{array}$	
	4th	0.5-0.7 (0.020-0.028)	
	Reverse	0.75-0.95 (0.030-0.037)	_
	Clutch return spring free length		
	1st-hold, 1st, 2nd, 3rd, 4th Reverse	33.7 (1.327)	
	Clutch disc thickness	30.3 (1.193)	28.3 (1.114)
	1st-hold, 1st, 2nd, Reverse	1.88-2.00 (0.074-0.079)	Until grooves worn out.
	3rd, 4th	2.28-2.40 (0.090-0.094)	Until grooves worn out.
	Clutch plate thickness	1.05 0.05 (0.077 0.001)	Disastantia
	1st-hold, 1st, 2nd, Reverse 3rd, 4th	1.95-2.05 (0.077-0.081) 2.55-2.65 (0.100-0.104)	Discoloration
	Clutch end plate thickness Mark 1	2.05 - 2.10 (0.081 - 0.083)	i f
	(1st, 2nd, 3rd, 4th) Mark 2	2.15-2.20 (0.085-0.087)	
	Mark 3	2.25-2.30 (0.089-0.091)	
	Mark 4	2.35-2.40 (0.093-0.094)	
	Mark 5 Mark 6	2.45 - 2.50 (0.096 - 0.098)	
	Mark 8 Mark 7	2.55-2.60 (0.100-0.102) 2.65-2.70 (0.104-0.106)	
	Mark 8	2.75-2.80 (0.108-0.110)	
	Mark 9	2.85-2.90 (0.112-0.114)	
	Clutch end plate thickness Mark L1	2.05-2.10 (0.081-0.083)	
	(1st-hold) Mark L2 Mark L3	2.15-2.20 (0.085-0.087)	
	Mark LS Mark L4	2.25-2.30 (0.089-0.091) 2.35-2.40 (0.093-0.094)	
	Mark L5	2.45-2.50 (0.096-0.098)	
	Mark L6	2.55-2.60 (0.100-0.102)	
	Mark L7	2.65-2.70 (0.104-0.106)	
	Mark L8 Mark L9	2.75 - 2.80 (0.108 - 0.110)	
	Mark L9 Clutch end plate thickness Mark R1	2.85-2.90 (0.112-0.114) 4.05-4.10 (0.159-0.161)	
	(Reverse) Mark R2	4.05 - 4.10(0.153 - 0.161) 4.15 - 4.20(0.163 - 0.165)	
	Mark R3	4.25-4.30 (0.167-0.169)	
	Mark R4	4.35-4.40 (0.171-0.173)	
	Mark R5	4.45-4.50 (0.175-0.177)	
	Mark R6	4.55 - 4.60 (0.179 - 0.181) 4.65 - 4.70 (0.183 - 0.185)	
	Mark R7 Mark R8	4.65–4.70 (0.183–0.185) 4.75–4.80 (0.187–0.189)	
	Mark R9	4.85 - 4.90 (0.191 - 0.193)	Discoloration
			loont

Automatic Transmission - Section 14 -

MEASUREMENT

(cont'd)

### **Standards and Service Limits**

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Valve body	Stator shaft needle bearing contact I.D. (torque converter side)	28.000-28.021 (1.102-1.103)	Wear or damage
	Startor shaft needle bearing contact I.D. (oil pump side)	31.000-31.013 (1.220-1.221)	-
	Oil pump driven gear I.D.	14.016-14.034 (0.552-0.553)	Wear or damage
	Oil pump driven gear shaft O.D.	13.980-13.990 (0.550-0.551)	Wear or damage
	Oil pump gear side clearance	0.03-0.05 (0.001-0.002)	0.07 (0.003)
	Oil pump gear-to-body clearance Drive	0.210-0.265 (0.008-0.010)	) —
	Driven	0.070-0.125 (0.003-0.005)	
Regulator valve body	Sealing ring contact I.D.	37.000-37.025 (1.457-1.458)	37.05 (1.459)
Accumulator body	Sealing ring contact I.D.	42.000-42.030 (1.654-1.655)	42.05 (1.656)
Shfting device	Parking brake cone	-	Wear or other defect
and parking	Parking brake pawl	-	<b>t</b>
orake control	Parking gear		Wear or other defect
Transmission	Mainshaft reverse gear distance collar length	25.95-26.05 (1.022-1.026)	Wear or damage
	2nd clutch thrust washer 29 mm thickness	3.95-4.00 (0.156-0.157)	∮
	Mainshaft 2nd gear collar length A	35.00-35.05 (1.378-1.380)	
	BA	31.06-31.09 (1.223-1.224)	
i	Countershaft reverse gear thrust washer thickness	3.95-4.05 (0.156-0.159)	
	Countershaft reverse gear collar length A	26.95-27.05 (1.061-1.065)	
	BA	23.05-23.09 (0.907-0.909)	
	Reverse clutch distance collar length	35.45-35.55 (1.396-1.400)	Wear or damage
	Thrust washer (45.5 x 60) thickness	1.27-1.30 (0.050-0.051)	_
	(countershaft 2nd gear/parking gear)	1.32-1.35 (0.052-0.053)	_
		1.37-1.40 (0.054-0.055)	
		1.42-1.45 (0.056-0.057)	—
		1.47-1.50 (0.058-0.059)	—
		1.52-1.55 (0.060-0.061)	-
		1.57-1.60 (0.062-0.063)	
		1.62-1.65 (0.064-0.065) 1.67-1.70 (0.066-0.067)	
		1.72-1.75 (0.068-0.069)	
		1.77-1.80 (0.070-0.071)	
		1.82-1.85 (0.072-0.073)	
		1.87-1.90 (0.074-0.075)	_
	Mainshaft 1st gear thrust washer thickness	3.45-3.55 (0.136-0.140)	Wear or damage
	Mainshaft 1st gear distance collar length	34.05-34.08 (1.341-1.342)	▲ 30
	Mainshaft 1st gear collar length A	33.90-33.97 (1.335-1.337)	↓
	BA	30.05-30.10 (1.183-1.185)	Wear or damage
	4th clutch collar	9.67-9.70 (0.381-0.382)	_
		9.72-9.75 (0.383-0.384)	_
		9.77-9.80 (0.385-0.386)	_
		9.82-9.85 (0.387-0.388)	-
		9.87-9.90 (0.389-0.390)	-
		9.92-9.95 (0.391-0.392)	-
		9.97-10.00 (0.393-0.394)	_

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



#### Unit of length: mm (in)

### Automatic Transmission – Section 14

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission	Countershaft 2nd gear collar length	35.95-36.00 (1.415-1.417)	Wear or damage
cont'd)	Countershaft 1st gear B A A	27.95-28.05 (1.100-1.104)	1 1
	collar length B	23.50-23.55 (0.925-0.927)	Wear or damage
	Thrust washer (38.8 x 47) thickness	2.97-3.00 (0.117-0.118)	
	(1st-hold clutch front side)	3.02-3.05 (0.119-0.120)	-
		3.07-3.10 (0.121-0.122)	-
		3.12-3.15 (0.123-0.124)	_
		3.17-3.20 (0.125-0.126)	_
		3.22-3.25 (0.127-0.128)	_
		3.27-3.30 (0.129-0.130)	_
		3.32-3.35 (0.131-0.132)	_
		3.37-3.40 (0.133-0.134)	_
		3.42-3.45 (0.135-0.136)	-
		3.47-3.50 (0.137-0.138)	_
	1st-hold clutch distance collar length	68.95-69.05 (2.715-2.718)	Wear or damage
	Countershaft 3rd goor	28.95-2.05 (1.140-1.144)	A A A A A A A A A A A A A A A A A A A
	collar length B A B	24.02-24.05 (0.946-0.947)	
	Diameter or one-way clutch contact area		
	Countershaft 1st gear I.D.	95.764-95.790 (3.770-3.771)	
	Countershaft 2nd gear I.D.	86.487-86.513 (3.405-3.406)	
	One-way clutch hub O.D.	79.107-79.120 (3.114-3.115)	
	Parking gear one-way clutch contact area O.D.	69.833-69.846 (2.749-2.750)	
	Feed pipe A Q.D.	6.97-6.98 (0.274-0.275)	1
	Feed pipe B O.D.	11.47-11.48 (0.4516-0.4520)	Wear or damage
	Mainshaft and countershaft bushings, 7.0 I.D.	7.018-7.030 (0.276-0.277)	7.045 (0.277)
	Mainshaft and countershaft bushings, 11.5 I.D.	11.500-11.518 (0.4528-0.4535)	11.53 (0.454)
	Mainshaft sealing ring 37 mm thickness	1.980 - 1.995 (0.078 - 0.079)	1.80 (0.071)
	Countershaft sealing ring 42 mm thickness	1.980 - 1.995 (0.078 - 0.079)	1.80 (0.071)
	Mainshaft sealing ring groove width	2.025 - 2.060 (0.080 - 0.081)	2.08 (0.082)
	Countershaft sealing ring groove width	2.025 - 2.060 (0.080 - 0.081)	2.08 (0.082)
	Diameter of needle bearing contact area	2.020 2.000 (0.000-0.001)	2.00 (0.002)
	Mainshaft-stator shaft	24.980-24.993 (0.983-0.984)	Wear or damage
	Mainshaft 3rd gear	53.968 - 53.984 (2.1247 - 2.1254)	wear or damage
	Mainshaft 1st gear collar	34.975 - 34.991 (1.377 - 1.378)	Ī
	Mainshaft 1st gear distance collar	34.975 - 34.991 (1.377 - 1.378) 34.975 - 34.991 (1.377 - 1.378)	
	Mainshaft 2nd gear collar	34.975-34.991 (1.377-1.378)	
	Countershaft-torque converter housing	34.575 - 34.591(1.377 - 1.378) 38.505 - 38.515(1.5159 - 1.5163)	
	Countershaft 3rd gear collar	47.975-47.991 (1.8888-1.8894)	
	Countershaft 1st gear collar		
	Countershaft 2nd gear collar	38.975-38.991 (1.534-1.535) 38.975-38.991 (1.534-1.535)	
	Countershat reverse gear collar		
	Reverse idler gear shaft	33.975-33.991 (1.3376-1.3382)	<b>V</b>
<u> </u>		13.99-14.00 (0.5508-0.5512)	Wear or damage

(cont'd)

### Standards and Service Limits

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

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Transmission	I.D.		
cont'd)	Mainshaft 4th gear	59.000-59.016 (2.3228-2.3235)	Wear or damage
	Mainshaft 2nd gear	40.000-40.016 (1.5748-1.5754)	A State
	Mainshaft 1st gear	39.000-39.016 (1.535-1.536)	I T
	Countershaft 3rd gear	54.000-54.016 (2.126-2.127)	l l
	Countershaft 2nd gear	44.020-44.036 (1.733-1.734)	
	Countershaft 1st gear		
		44.000-44.016 (1.732-1.733)	
	Countershaft reverse gear	39.000-39.016 (1.535-1.536)	₹
	Reverse idler gear	18.007-18.020 (0.7089-0.7094)	Wear or damage
	End play		
	Mainshaft 4th gear	0.03-0.18 (0.001-0.007)	-
	1st/4th clutch	0-0.08 (0-0.03)	Adjust with a
			washer
	Mainshaft 2nd gear	0.06-0.16 (0.002-0.006)	
	Mainshaft 1st gear	0.10-0.25 (0.004-0.010)	] —
	Countershaft 3rd gear		-
		0.02-0.12 (0.001-0.005)	1 <del>-</del>
	Countershaft 4th gear	0-0.08 (0-0.03)	Adjust with a
			washer
	Countershaft 2nd gear	0.07-0.15 (0.003-0.006)	Adjust with a
			washer
	Countershaft reverse gear	0.05-0.16 (0.002-0.006)	
	Reverse idler gear	0.03 - 0.30 (0.001 - 0.012)	
	Secondary gear shaft taper roller bearing		
	preload (starting torque) N·m (kg-cm, lb-in)	3.5-4.5 (35-45, 30-39)	-
	preioad (starting torque) N·m (kg-cm, Ib-in)		
	Thrust washer 90 mm thickness	0.99-1.01 (0.039-0.040)	Wear or damage
	(torque converter housing side)		
	Thrust shim 75 mm thickness	1.56-1.58 (0.061-0.062)	1
		1.59-1.61 (0.0626-0.0634)	1
		1.62-1.64 (0.064-0.065)	
		1.65-1.67 (0.065-0.066)	
		1.68-1.70 (0.066-0.067)	
		1.71-1.73 (0.067-0.068)	
		1.74-1.76 (0.0685-0.0693)	
		1.77-1.79 (0.0697-0.0705)	1
		1.80-1.82 (0.071-0.072)	
		1.83-1.85 (0.072-0.073)	
	l	1.86-1.88 (0.073-0.074)	
		1.89 - 1.91 (0.074 - 0.075)	
		1.92-1.94 (0.0756-0.0764)	1
		1.95-1.97 (0.077-0.078)	
		1.98-2.00 (0.078-0.079)	
		2.01-2.03 (0.079-0.080)	
		2.04-2.06 (0.080-0.081)	
		2.07-2.09 (0.081-0.082)	
		2.10-2.12 (0.0827-0.0835)	
		2.13-2.15 (0.084-0.085)	
	1		]
		2.16-2.18 (0.085-0.086)	
		2.19-2.21 (0.086-0.087)	
		2.22-2.24 (0.087-0.088)	
		2.25-2.27 (0.0886-0.0894)	
		2.28-2.30 (0.090-0.091)	
		2.31-2.33 (0.091-0.092)	
		2.34-2.36 (0.092-0.093)	
		2.37-2.39 (0.093-0.094)	
		2.40-2.42 (0.094-0.095)	
		2.43-2.45 (0.0957-0.0965)	



Unit of length: mm (in)

### - Automatic Transmission - Section 14 -----

		4	STANDA	RD (NEW)	
	MEASUREMENT	Wire Dia.	0.D.	Free Length	No. of Coils
Spring	One-way ball spring	0.29 (0.011)	4.0 (0.157)	14.0 (0.551)	13.0
	Secondary spring	2.3 (0.091)	20.2 (0.795)	21.099 (0.831)	4.0
	4-3 kick down valve spring	1.1 (0.043)	7.1 (0.280)	51.3 (2.020)	22.5
	Regulator valve spring A	1.8 (0.071)	14.7 (0.579)	86.5 (3.406)	16.5
	Regulator valve spring B	1.7 (0.067)	6.0 (0.236)*	43.0 (1.693)	13.5
	Stator reaction spring	6.5 (0.256)	26.4 (1.039)*	30.3 (1.193)	1.9
	Modulator valve spring A	1.5 (0.059)	9.4 (0.370)	30.6 (1.205)	9.9
	Modulator valve spring A, B	1.4 (0.055)	9.4 (0.370)	33.0 (1.299)	10.5
	Torque converter check valve spring	1.1 (0.043)	8.4 (0.331)	41.8 (1.646)	15.7
	Relief valve spring	0.9 (0.035)	8.4 (0.331)	56.5 (2.224)	22.4
	Cooler relief valve spring	1.1 (0.043)	8.4 (0.331)	46.8 (1.843)	17.0
	3-4 orifice control valve spring	1.0 (0.039)	6.6 (0.260)	49.6 (1.953)	26.8
	Throttle valve spring	1.0 (0.039)	7.6 (0.299)	28.3 (1.114)	12.1
	1-2 shift valve spring	0.9 (0.035)	7.6 (0.299)	55.5 (2.185)	24.0
	2-3, 3-4 shift valve spring	0.8 (0.031)	6.6 (0.260)	42.1 (1.657)	22.0
	4-3 shift timing valve spring	0.7 (0.028)	7.1 (0.280)	35.0 (1.378)	20.4
	1st accumulator spring	2.9 (0.114)	18.0 (0.709)	75.5 (2.972)	11.5
	4th accumulator spring	2.8 (0.110)	16.5 (0.650)	80.8 (3.181)	14.6
	2nd accumulator spring A	3.6 (0.142)	22.0 (0.866)	96.7 (3.807)	13.0
	2nd accumulator spring B	2.0 (0.079)	6.6 (0.260)*	80.0 (3.150)	19.6
	1st-hold accumulator spring	4.0 (0.157)	25.0 (0.984)	68.4 (2.693)	7.2
	3rd accumulator spring	3.2 (0.126)	19.0 (0.748)	78.4 (3.087)	11.1
	Reverse accumulator spring	3.5 (0.138)	18.6 (0.732)	115.5 (4.547)	19.0
	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)	61.2 (2.409)	38.5
	Lock-up control valve spring A	0.7 (0.028)	6.6 (0.260)	36.3 (1.429)	14.1
	B	0.7 (0.028)	6.6 (0.260)	37.5 (1.476)	24.6
	c	0.7 (0.028)	6.6 (0.260)	38.5 (1.516)	24.6
	CPC valve spring A, B	1.0 (0.039)	6.8 (0.268)	34.3 (1.350)	14.2

\*: I.D.

### **Standards and Service Limits**

	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Differential oil	Capacity ℓ (US qt, Imp qt)	1.10 (1.16, 0.97) for overhaul 1.05 (1.11, 0.92) for oil change	L
Differential carrier	Pinion shaft contact area I.D. Carrier-to-pinion shaft clearance Driveshaft and intermediate shaft contact area I.D.	20.000-20.021 (0.7874-0.7882) 0.013-0.050 (0.0005-0.0020) 32.025-32.045 (1.2608-1.2616)	 0.1 (0.004) 
	Carrier-to-driveshaft clearance Carrier-to-intermediate shaft clearance	0.045-0.086 (0.0018-0.0034) 0.080-0.116 (0.0031-0.0046)	0.120 (0.0047) 0.120 (0.0047)
Differential pinion gear	Backlash I.D. Pinion gear-to-shaft clearance	0.05-0.15 (0.002-0.006) 20.04220.066 (0.7891-0.7900) 0.055-0.095 (0.0022-0.0037)	0.30 (0.012)
Drive pinion gear and ring gear	Backlash At inspection hole At ring gear circumference	0.06-0.14 (0.002-0.006) 0.08-0.18 (0.003-0.007)	Adjust with a shim Adjust with a shim
Drive pinion	Preload (starting toque) N·m (kg-cm, lb-in) M/T New bearing Reused bearing A/T New bearing Reused bearing	0.93-1.57 (9.3-15.7, 8.1-13.6) 0.72-1.21 (7.2-12.1, 6.2-10.5) 1.86-2.54 (18.6-25.4, 16.1-22.0) 1.45-1.95 (14.5-19.5, 1.26-16.9)	Adjust with a shim
Drive pinion and differen- tial unit	Total preload (starting torque) N·m (kg-cm, lb-in) M/T ① ③ ④ A/T ① ② ③ ④ ④	$\begin{array}{c} Tp+0.55-0.78 \ (5.5-7.8,\ 4.8-6.8)\\ Tp+0.55-0.78 \ (5.5-7.8,\ 4.8-6.8)\\ Tp+0.65-0.79 \ (6.5-7.9,\ 5.6-6.9)\\ Tp+0.65-0.79 \ (6.5-7.9,\ 5.6-6.9)\\ Tp+1.06-1.28 \ (10.6-12.8,\ 9.2-11.1)\\ Tp+1.06-1.28 \ (10.6-12.8,\ 9.2-11.1)\\ Tp+0.96-1.09 \ (9.6-10.9,\ 8.3-9.5)\\ \end{array}$	Adjust with a shim

Pinion and ring gear bearings are new
 Ring gear bearing is new
 Pinion bearing is new
 Pinion and ring gear bearings are reused Tp: Actual measurement of pinion preload

	MEASUREMENT	STANDARD (NEW)
Steering wheel	Play at steering wheel circumference Starting load at steering wheel circumference N (kg, lbs) Engine stopped Engine running	0-10 (0-0.4) 200 (20, 44) max. 30 (3, 6.6) max.
Gear box	Angle of rack-guide-screw loosened from locked position	20° <sup>+5°</sup> _0°
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	Fluid capacity Reservoir ℓ (US qt, Imp qt) System	0.53 (0.56, 0.47) 1.7 (1.8, 1.5)
Power steering	Deflection with 100 N (10 kg, 22 lbs) between pulleys	11.5-13.5 (0.45-0.53) with used belt 7.5-9.5 (0.30-0.37) with new belt
belt*	Belt tension N (kg, lbs) Measured with belt tension gauge	350-550 (35-55, 77-121) with used belt 700-900 (70-90, 154-198) with new bel

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



#### Unit of length: mm (in)

- Suspensio	Unit of length: mm			
	MEASURE	MENT	STANDARD (NEW)	SERVICE LIMIT
Wheel	Camber	Front	0° 00′ ±1°, 0° 15′ ±1°*1	_
alignment		Rear	$-0^{\circ} 20' \pm 1^{\circ}, -0^{\circ} 5' \pm 1^{\circ*1}$	I _
	Caster	Front	3° 45′ ±1°, 3° 30′ ±1°*1	-
	Total toe	Front	Out 1 ± 2 (0.04 ±0.08)	_
		Rear	IN 2 ±2 (0.08 ±0.08)	
	Front wheel turning angle	Inward wheel	44° ±2°	_
			40° ±2°*2	_
		Outward wheel	35°	—
			33°*2 ·	_
	Side slip	Front	Out 1 $\pm 2$ (0.04 $\pm$ 0.08)	-
Wheel	Rim runout	Axial	0-0.7 (0-0.03)	2.0 (0.08)
		Radial	0-0.7 (0-0.03)	1.5 (0.06)
Wheel bearing	End play	Front	0-0.05 (0-0.002)	
-		Rear	0-0.05 (0-0.002)	_

\*1: KY only \*2: KF, KG, KX, KE, KS

#### - Brakes - Section 19 -

		MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Parking brake lever (LHD)	Play in stroke at	200 N (20 kg, 44 lbs) lever force	To be locked when pulled 8- notches	-12 –
Parking brake pedal (RHD)	Play in stroke at	300 N (30 kg, 66 lbs) pedal force	To be locked when pushed 6 notches	-8 -
Foot brake pedal	-	ith floor mat removed)	LHD: 213 (8.39) min. RHD: 210 (8.27) min.	
	Free play		1-5 (0.04-0.20)	—
Master cylinder	Piston-to-pushr	od clearance	0-0.2 (0-0.008)	—
Disc brake	Disc thickness	Front	23.0 (0.91) 28.0 (1.10)* <sup>1</sup>	21.0 (0.83) 26.0 (10.2)* <sup>1</sup>
		Rear	9.0 (0.35)	7.5 (0.30)
	Disc runout	Front	-	0.10 (0.004)
	D:	Rear		0.10 (0.004)
ſ	Disc parallelism Pad thickness		-	0.015 (0.0006)
	Fau thickness	Front Rear	11.0 (0.43) 9.0 (0.35)	1.6 (0.06) 1.6 (0.06)
Parking brake	I.D.	Rear	170.0 (6.69)	171.0 (6.73)
drum*2	Lining thicknes	s Rear	2.5 (0.10)	1.0 (0.04)
Brake booster Characteristics a force		at 200 N (20 kg, 44 lbs) pedal	Line pressure kPa (kg/cm	n², psi)
		Type Vacuum	LHD	RHD
		0 mm (0 in) Hg 300 mm (11.8 in) Hg 500 mm (19.7 in) Hg	700 (7.0 100) min. 6,230 (62.3, 886) min. 9,920 (99.2, 1,411) min.	820 (8.2, 117) min. 6,190 (61.9, 880) min. 9,780 (97.8, 1,391) min.

\*1: Dual pot caliper type \*2: Rear disc brake with drum parking brake type

### **Standards and Service Limits**

	MEASUREMENT		STANDARD (NEW)
Air conditioner system	mℓ (fl oz, Imp oz) E L	Condenser Evaporator Line or hose Reservoir	30 (1, 1.06) 60 (2, 2.11) 10 (1/3, 0.35) 10 (1/3, 0.35)
Compressor	Lubricant capacity ml (fl oz, Stator coil resistance at 20°C (6 Pulley-to-pressure plate clearance	58°F) Ω	$180^{+15}_{-0} (6^{+1/2}_{-0}, 6.32^{+0.51}_{-0})$ 3.4-3.8 0.35-0.65 (0.014-0.026)
Compressor belt*	Deflection with 100 N (10 kg, 22 lbs) between pulleys		8-10 (0.31-0.39) with used belt 5.0-6.5 (0.20-0.26) with new belt
	Belt tension N (Kg, lbs) Measured with belt tension gauge	1e	400-600 (40-60, 88-132) with used belt 800-1,000 (80-100, 176-220) with new belt

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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.

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	MEASUREMENT	STANDARD (NEW)	
Ignition coil	Rated voltage V Primary winding resistance at 25°C (77°F) $\Omega$	12 1.0±10%	
Spark Plug	Туре	Refer to section 23	
Ignition timing	At idling ° BTDC	15±2 (Red)	
Alternator belt*	Deflection with 100 N (10 kg, 22 lbs) between pulleys	9.5–11.5 (0.37–0.45) with used belt 5.5–7.5 (0.22–0.30) with new belt	
	Belt tension N (kg, lbs) Measured with belt tension gauge	400-600 (40-60, 88-132) with used belt 800-1,000 (80-100, 176-220) with new belt	
	MEASUREMENT	STANDARD (NEW)	SERVICE LIMIT
Alternator	Output A at 13.5 V, hot and 6,000 alternator min <sup><math>-1</math></sup> (rpm)	110	-
	Brush length	10.5	3.5
Starting motor (MITSUBISHI)	Type/Output kW Mica depth Commutator runout Commutator O.D. Brush length Brush spring tension N (kg, lbs)	Reduction, Permanent magnet/2.0 0.5-0.8 (0.020-0.031) 0-0.05 (0-0.002) 31.9-32.1 (1.256-1.264) 18.0 (0.709) 29.7-36.3 (2.97-3.63, 6.55-8.00)	 0.2 (0.008) 0.1 (0.004) 31.5 (1.240) 11.0 (0.433) 

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 Overall Width Overall Height Wheelbase Track Front/Rear Except KY	4,950 mm 1,810 mm 1,410 mm 2,910 mm 1,550/1,540 mm	194.9 in 71.3 in 55.5 in 114.6 in 61.0/60.6 in	
	KY Seating Capacity	1,545/1,535 mm Fi	l 60.8/60.4 in ve	
WEIGHT	Curb Weight MT, A/T European type KQ KY KU	1,590 kg 1,610 kg 1,625 kg 1,635 kg 1,590 kg	3,505 lbs 3,549 lbs 3,582 lbs 3,605 lbs 3,505 lbs	
	Weight Distribution MT, A/T European type KQ KY	960/630 kg 975/635 kg 965/660 kg 970/665 kg	2,116/1,389 lbs 2,149/1,400 lbs 2,127/1,455 lbs 2,138/1,466 lbs	
	Max. Permissible Weight (for European) Max. Loaded Vehicle Weight (ADR)	2,150 kg 1,993 kg	4,740 lbs 4,394 lbs	
ENGINE	Type Cylinder Arrangement	gasoline	4-stroke SOHC e engine -cylinder	
	Bore and Stroke Displacement Compression Ratio	90.0 x 84.0 mm 3,206 cm³ (mℓ) 9.6 : 1,	3.54 x 3.31 in 196 cu-in 9.0 : 1*	* Except European type and KU
	Valve Train Lubrication System		en, SOHC mp, trochoid pump	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Oil Pump Displacement [At oil temp. 120°C (248°F)] Fuel Required C32A2 Engine	42.3 ℓ/min PREMIUM UNLEA	44.7 US qt/min 37.2 Imp qt/min DED gasoline with nber of 95 or higher	at 6,000 pump min <sup>-1</sup> (rpm) European type and KU
	C32A3 Engine	UNLEADED gasoline	with research octane 91 or higher	κα
	C32A4, C32A5 Engines	LEADED gasoline w	ith research octane 31 or higher	KY, KT Unleaded gasoline with R.O.N. of 91 or higher may also be used.
	Water Pump Displacement [At coolant temp. 25°C (77°F)]	178 ℓ/min	188 US qt/min 157 Imp qt/min	at 5,760 pump min <sup>– 1</sup> (rpm)
STARTER	Type/Makes Normal Output	MITSU	ermanent magnet/ JBISHI kW	
	Nominal Voltage	12	2 V	
	Hour Rating Direction of Rotation Weight	30 se Clockwise as viewed 5.2 kg	conds from gear end   11.5 lbs	
CLUTCH	Clutch Type M/T A/T		diaphragm spring converter	
	Clutch Living Area M/T	251 cm <sup>2</sup>	39 sq-in	

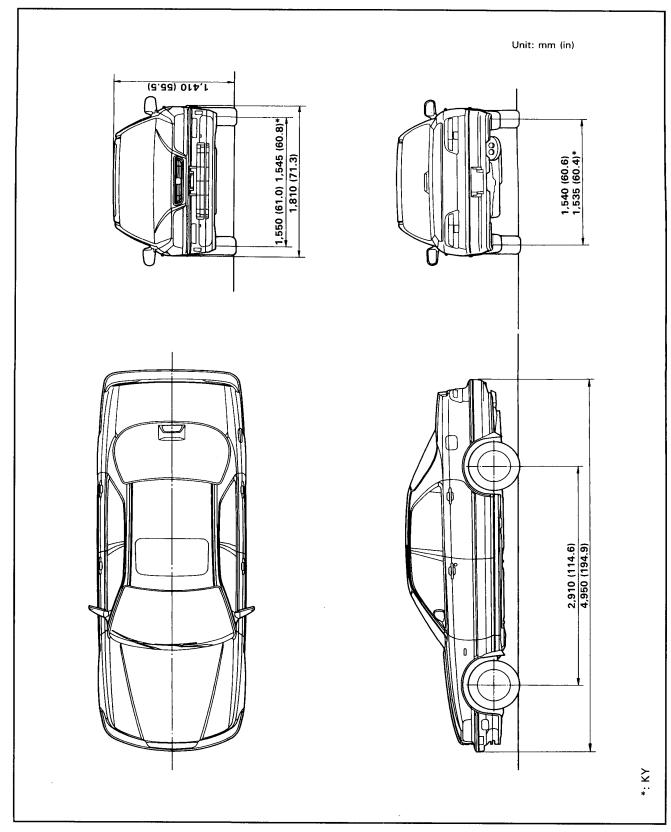
## **Design Specifications**

	דו	EM	METRIC	ENGLISH	NOTES	
TRANSMISSION	Transmission Primary Reduction	M/T A/T	Synchronized 5-spee Electronical 4-speed auton Direct			
	Туре		Manual	Automatic		
	Gear Ratio	1st 2nd 3rd 4th 5th Reverse	2.937 1.692 1.151 0.868 0.682 3.186	2.458 1.454 0.973/0.948* 0.630/0.688* 	*European type and KL	
	Secondary Reduct	ion Gear type Gear ratio Gear type	1.433	elical gear   1.394/1.333* evel gear	*European type and KU	
		Gear ratio	3.133	3.133		
AIR	Cooling Capacity		4,900 K cal/h	19,443 BTU/h		
CONDITIONER	. N	No. of Cylinder		Swash-plate type/NIPPONDENSO		
		apacity lax. Speed	207.4 cm <sup>3</sup> /rev 7,600 mi	12.7 cu-in/rev n <sup>-1</sup> (rpm)		
	L	ubricant Capacity	180 mℓ	6 fl oz, 6.32 lmp oz	ND-0IL8	
	Condenser T	уре	Corrugated fin type			
	Evaporator T	уре	Corrugate	ed fin type		
	N S	ype lotor Input peed Control	200 V Infinite	co fan V/12 V variable		
		lax. Capacity	480 m <sup>3</sup> /h	16,954 cu-ft/h	at 13.5 V	
	Temp. control		Air-mix type			
		ype ower Consumption	Dry, single plate, poly-V-belt drive 40 W/12 V			
	-	ype wantity	R-1 750 <sup>+0</sup> <sub>−50</sub> g	34 a 26.5 <sup>+0</sup> <sub>-18</sub> oz		
STEERING SYSTEM	Type Overall Ratio Turns, Lock-to-Loc		Power assisted, 16 3.	rack and pinion 5.7 24		
	Steering Wheel Di	ameter	390 mm	15.4 in		

# specs

		TEM	METRIC	ENGLISH	NOTES
SUSPENSION	Туре	Front	Independent do		
		_	coil spring w	vith stabilizer	
		Rear		uble wishbone,	
		F ( 18	coil spring w		1
	Shcok Absorber	Front and Rear	Telescopic, hydrauli		
WHEEL	Camber	Front	0°00′,		* KY
ALIGNMENT		Rear	-0°20′,		
	Caster		3°45′,	3°30′*	
	Тое	Front	Out 1.0 mm	Out 0.04 in	
		Rear	In 2.0 mm	In 0.08 in	
BRAKE	Туре	Front	Power assisted	self-adjusting	
SYSTEM			ventilat	ed disc	
		Rear	Power assisted	l self-adjusting	
			solid disc with pa	rking brake drum	
	Pad and Lining Su	rface Area: Front	58.0 cm <sup>2</sup>	8.99 sg-in	
		Rear	28.0 (49.0) cm <sup>2</sup>	4.34 (7.60) sg-in	(): Parking brake
	Parking Brake Kine	d and Type	Mechanical exp	anding drums,	· · · · · · · · · · · · · · · · · · ·
			rear two		]
TYRE	Size		205/65	ZR 15	KU
			205/608		KQ
			205/60R		KY, KT
			215/55	5ZR 16	KF, KG, KX, KE, H
ELECTRICAL	Battery		12 V-72	AH/20 HB	
	Starter		12 V-2		
	Alternator		12 V-		
	Fuses In the Unde	r-Dash Fuse Box	7.5 A, 10 A, 15	A, 20 A, 30 A	
	In The Unde	r-Hood Relay/Fuse Box	7.5 A, 10 A, 15 A,	20 A, 30 A, 40 A,	
			50 A,	120 A	
	Headlights (Low/H		12 V-55/60 W, 1		
	Front Turn Signal		│ 12 V−21 W, 1		
	Front Position Lig		12 V-		
	Side Turn Signal L		12 V-		
	Rear Turn Signal I	lights	12 V-21 W, 1		
	Stop/Taillights*1 Stop Lights*2		12 V-3		
	Taillights		12 V-		
	Side Marker Light	s Front	12 V—10 W, 12 V-		
		Rear	12 V-		
	Backup Lights	Hour	12 V-21 W, 1		
	Rear Fog Light*3		12 V 21 W, 1		
	High Mount Brake	Light <sup>*4</sup>	12 V-		
	License Plate Ligh	ts	12 V-5 W, 1		
	Gauge Lights		12 V-3.0		
	Indicator Lights		12 V-1.12		
	Warning Lights		12 V—		
	Interior Light		12 V-		
	Vanity Mirror Ligh	t	12 V—		
	Boot Lights	L	12 V-		
	Door Courtesy Lig		12 V-		
	Illumination and P	liot Lights	12 V-1.4 W, 1		1
	Heater Illumination	Light (Manual A/C)	12 V-0.91 W		
		h Light (Manual A/C) Front and rear	12 V-		
	operlight	rionit and rear	12 V-	- 5 VV C -	1

## **Body Specifications**



## Maintenance

Lubrication Points	4-2
Maintenance Schedule	4-4

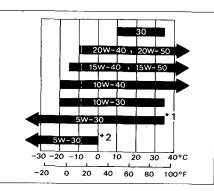


For the details of lubrication points and types of lubricants to be applied, refer to the Illustrated Index and various work procedures (such as Assembly/Reassembly, Replacement, Overhaul, Installation, etc.) contained in each section.

No.	LUBRICATION POINTS	LUBRICANT
1	Engine	API Service Grade: SF or SG Fuel Efficient Oil SAE Viscosity: See chart below
2		nual API Service Grade: SF or SG SAE Viscosity 10 W30 or 10 W40 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 7	Shift lever pivots (Manual transmission) Release fork (Manual transmission)	Grease with molybdenum disulfide
8 9 10 11 12 13 14 15 16 17 18 19 20 21	Steering boots Throttle cable end Steering ball joints Select lever (Automatic transmission) Pedal linkage Intermediate shaft Brake master cylinder pushrod Trunk hinges Door hinges upper and lower Door opening detents Fuel filler lid Engine hood hinges and engine hood latch Clutch master cylinder pushrod (Manual transmi Change rod joint (Manual transmission)	Multi-purpose grease nission)
22	Caliper Piston seal, Dust seal, Caliper pin, Piston	Silicone grease
23	Power steering system	Honda power steering fluid
24	Differential	Differential oil Hypoid gear oil API classified GL4 or GL5 Viscosity: SAE90: above -18°C (0°F) SAE 80 W90: below - 18°C (0°F)
25	Air conditioner compressor oil	ND-OIL8 P/N 38899-PR7-003

Recommended Engine Oil

API Service Grade: SF or SG Fuel Efficient oil

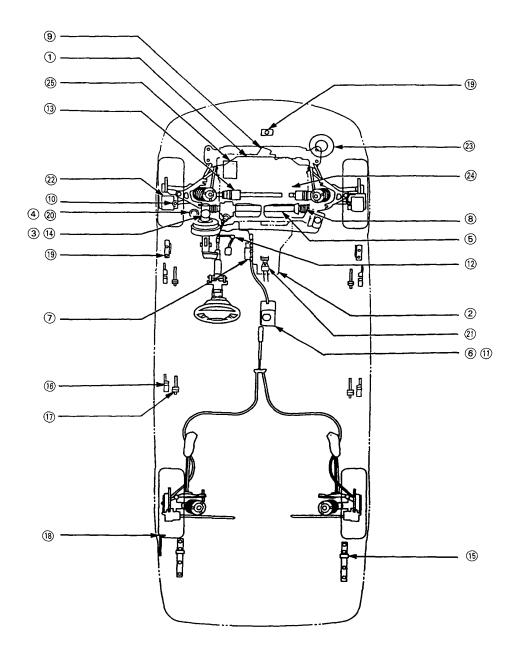


\*1: For cars with catalytic converter

\*2: For cars without catalytic converter

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.





4-3

	eplace I—Inspect; After			1									
after that number of months, whichever comes first.		x 1,000 km	10	20	30	40	50	60	70	80	90	100	
unte		Whichever comes mat.	x 1,000 miles	6	12	18	24	30	36	42	48	54	60
			months	6	12	18	24	30	36	42	48	54	60
Emi	ssion Related						L		<b>-</b>				
	Air cleaner element	For European type, KQ	and KU				R				R		
		Except for European ty	pe, KQ and KU		R		R		R		R		R
	Idle speed and idle CO	Except for KX, KS			1		I		1		1		1
		For KX, KS								L.			1
	E.G.R. system	For cars with catalytic	converter										1
		For cars without cataly	tic converter				1						
	E.G.R. filter	For cars with catalytic	converter								R		
	Secondary air supply sys	stem											I
	Evaporative emission con	ntrol system											1
	Ignition timing	Except for KX, KS					I				1		
		For KX, KS											1
	Positive crankcase	Except for KX, KS					I	_			I		
	ventilation valve	For KX, KS											1
	Fuel filter						R				R		
	Tank, fuel line and conne	ections					1				1		Γ
	Spark plugs	For cars with catalytic	converter										R.
		For cars without cataly	tic converter		R		R		R		R		R
۲	Engine oil and oil filter			R	R	R	R	R	R	R	R	R	R
	Alternator drive belt						1				1		
	Power steering pump be	lt					Ι				1		
	Cooling system hoses ar	nd connections					1				1		
•	Radiator coolant (Engine	coolant)									R*²		
	Transmission oil			1			R				R		
	Front differential oil						R				R		
Eng	ine (Non-Emission Related	)						<u> </u>					
	Timing Belt												F
	Water pump												1
	Exhaust pipe and muffle	r			1		1		I		1		1
	Catalytic converter heat (For cars with catalytic o												1

R-Replace I-Inspect; After inspection, clean, adjust, repair or replace if necessary.

• Day to day care (engine oil, ATF and coolant level) should be done practically according to the owner's manual by the customer.

Under severe driving conditions, service these items more often.

\*1 Replace every 6 years or 100,000 km (60,000 miles), whichever comes first.

\*2 Thereafter, replace every 2 years or 40,000 km (24,000 miles), whichever comes first.

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.



	vice at the interval listed x 1,000 km (or miles) or	x 1,000 km	10	20	30	40	50	60	70	80	90	100
afte	r that number of months, whichever comes first.	x 1,000 miles	6	12	18	24	30	36	42	48	54	60
		months	6	12	18	24	30	36	42	48	54	60
Brai	ke (Non-Emission Related)		1				1			L		1
	Front brake pads		, I	I	1	1	Ι	1	1	I	I	I
	Front brake discs and calipers			1		1		I		I		I
	Rear brake discs, calipers and pads					1				1		
	Parking brake drums and linings					I				I		
	Brake hoses and lines (including Anti-lock brake s	ystem)		1		Ι		I		I		Ι
	Parking brake			I		1				I		
	Brake fluid (including Anti-lock brake system)					R				R		
	Anti-lock brake system high pressure hose									R		
	Anti-lock brake system operation			I		I				1		
Ste	ering, suspension, miscellaneous (Non-Emission Rel	ated)		1	<b>_</b>					<b>L</b>		
	Front wheel alignment			I		1		1		Ι		Ι
	Steering operation, tie rod ends, steering gear box	and boots		I		1				1		
	Suspension mounting bolts			1		1		I		I		1
	Power steering system			1		1		1		1		1
	Supplemental Restraint System (For cars with SR	S)		spec <sup>.</sup> gistra			10	ears	s aft	er fir	st	<b>L</b>

R-Replace I-Inspect; After inspection, clean, adjust, repair or replace if necessary.

□ Under severe driving conditions, service these items more often.

#### Severe Driving Conditions

Items marked □ need service more often, if you drive in these conditions.

The conditions are:

- A. Repeated short distance driving.
- B. Dusty conditions.
- C. Severe cold weather.
- D. Areas with road salt or other corrosive materials.
- E. Rough or muddy roads.
- F. Towing a trailer.

#### The services are:

- Replace engine oil and oil filter every 5,000 km (3,000 miles) or 3 months under condition A, B or F.
- Clean the air cleaner element every 20,000 km (12,000 miles) or 12 months, and replace every 40,000 km (24,000 miles) or 24 months under condition B or E for European type, KQ and KU. Clean the air cleaner element every 10,000 km (6,000 miles) or 6 months, and replace every 20,000 km (12,000 miles) or 12 months under condition B or E for other than European type, KQ and KU.
- Replace transmission oil and front differential oil every 20,000 km (12,000 miles) or 12 months under condition F.
- Inspect front brake discs and calipers every 10,000 km (6,000 miles) or 6 months under condition A, B, D, E, or F.
- Inspect rear brake discs, calipers and pads every 20,000 km (12,000 miles) or 12 months under condition A, B, D, E or F.
- Inspect power steering system every 10,000 km (6,000 miles) or 6 months under condition B, C or E.

## Engine

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Engine Removal/Installation5	-1
Cylinder Head/Valve Train 6	-1

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Special Tools	5-2
Engine Removal/Installation	5-3



- Outline of Model Changes

• The engine mounts have been changed.

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## Special Tools

Ref. No.	Tool Number	Description	Qty	Page Reference
1 2 3 4 5	07KAK – SJ40101 07MAC – SL00100 07MAK – PY30100 07MAK – PY30200 07744 – 0010600	Engine Tilt Hanger Set Ball Joint Remover, 32mm Engine Sub Hanger Stay Sub Hanger Belt Pin Driver, 8.0mm	1 1 1 1 1	5-13 5-9 5-13 5-13 5-11
				30
Ţ	1	®	3	)
			J. J.	and the second
	٩		٢	



#### A WARNING

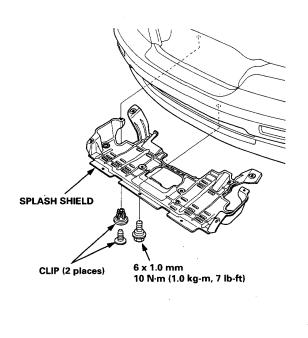
- Make sure jacks and safety stands are placed properly and hoist brackets are attached to the correct positions on the engine (see section 1).
- Make sure the car will not roll off stands and fall while you are working under it.

#### CAUTION:

- Use fender covers to avoid damaging painted surfaces.
- Unspecified items are common.
- Unplug the wiring connectors carefully while holding the coupler and the connector portion to avoid damage.
- Mark all wiring and hoses to avoid misconnection. Also, be sure that they do not contact other wiring or hoses or interfere with other parts.
- 1. Disconnect the battery negative terminal first, then the positive terminal. Remove the battery.
- 2. Remove the radiator cap.

A WARNING Use care when removing the radiator cap to avoid scalding by hot engine coolant or steam.

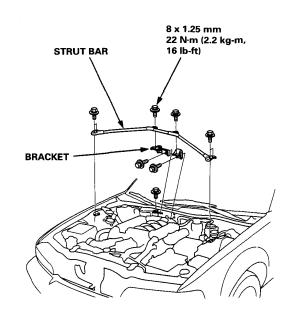
- 3. Raise the hoist to full height.
- 4. Remove the engine splash shield.



- 5. Drain the engine coolant.
  - · Loosen the drain plug in the radiator.
- 6. Drain transmission and differential oil or fluid. Reinstall the drain plugs using new washers.
- 7. Drain the engine oil. Reinstall the drain bolt using a new washer.

#### CAUTION: Do not overtighten the drain bolt.

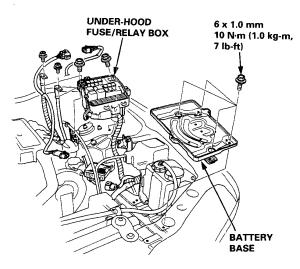
- 8. Lower the hoist.
- 9. Remove the hood support mount bolts, then fix the engine hood in a vertical position.
- 10. Remove the strut bar and bracket.



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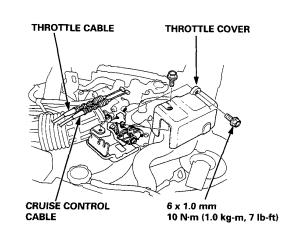
- 11. Remove the battery base.
- 12. Disconnect the engine wire harness connectors, then remove the under-hood fuse/relay box.
  - Remove the ground cable from cylinder block.
  - Remove the battery cable from starter motor B terminal.



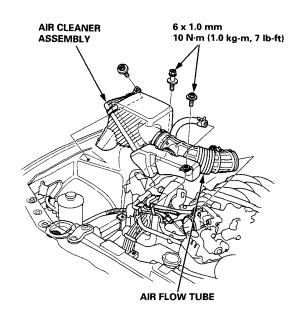
- 13. Remove the throttle cover.
- 14. Remove the throttle cable and cruise control cable by loosening the locknuts, then slip the cable ends out of the throttle bracket and throttle linkage.

#### NOTE:

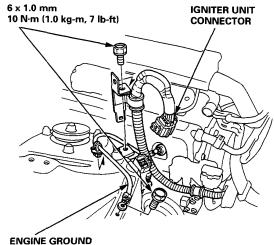
- Take care not to bend the cable when removing it. Always replace any kinked cable with a new one.
- Adjust the throttle cable when installing.



15. Remove air cleaner assembly and air flow tube.



16. Remove the igniter unit connector, harness clamp and engine ground cable.

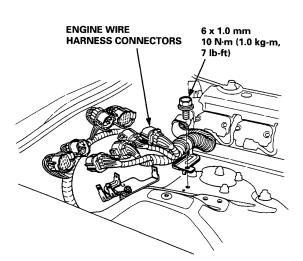




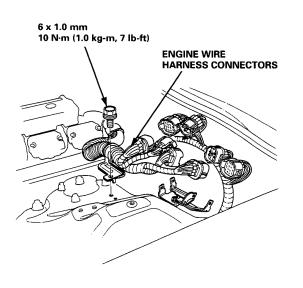


17. Disconnect four engine wire harness connectors and clamp.

#### LHD:

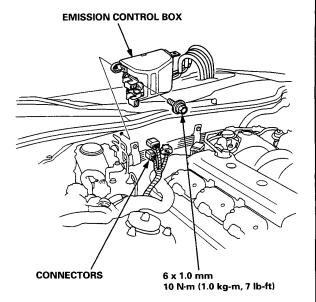


#### RHD:



#### LHD:

- Disconnect three connectors, then remove the emission control box.
  - Do not disconnect the vacuum hoses.



19. Relieve fuel pressure by slowly loosening the service bolt on the fuel filter about one turn.

**AWARNING** Do not smoke while working on the fuel system. Keep open flame away from work area. Drain fuel only into an approved container.

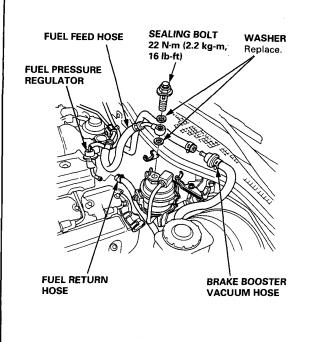
#### CAUTION:

- Before disconnecting any fuel line, the fuel pressure should be relieved as described above.
- Place a shop towel over the fuel filter to prevent pressurized fuel from spraying over the engine.

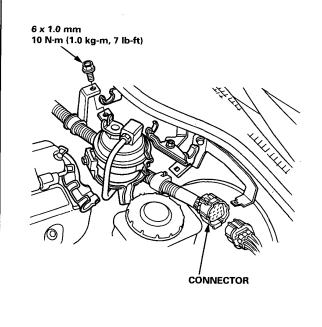
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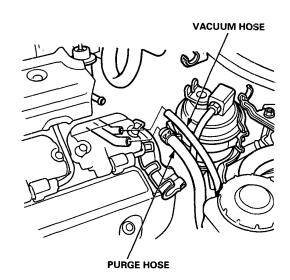
- 20. Remove the fuel feed hose and the fuel return hose from the fuel pressure regulator.
- 21. Disconnect the brake booster vacuum hose.



22. Disconnect the automatic transmission sub harness connector then remove the harness clamp.



23. Remove the purge hose and vacuum hose.





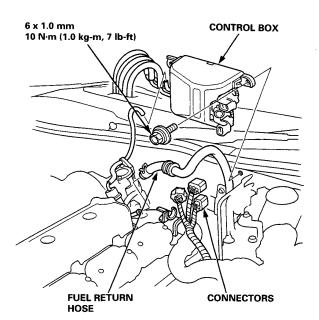
#### RHD:

24. Relieve fuel pressure by slowly loosening the service bolt on the fuel filter about one turn.

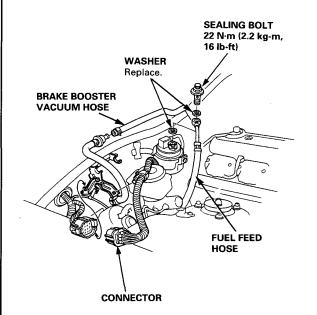
A WARNING Do not smoke while working on the fuel system. Keep open flame away from work area. Drain fuel only into an approved container.

#### CAUTION:

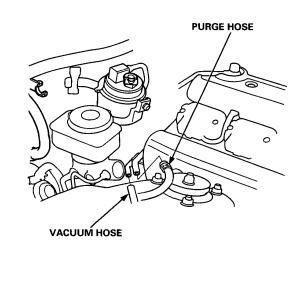
- Before disconnecting any fuel line, the fuel pressure should be relieved as described above.
- Place a shop towel over the fuel filter to prevent pressurized fuel from spraying over the engine.
- 25. Disconnect three connectors, then remove the control box.
  - Do not disconnect the vacuum hoses.
- 26. Remove the fuel return hose.



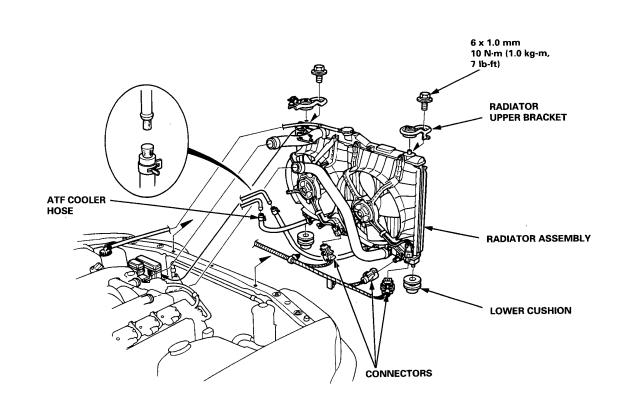
- 27. Remove the fuel feed hose.
- 28. Disconnect the brake booster vacuum hose.
- 29. Disconnect the automatic transmission sub harness connector then remove the harness clamp.



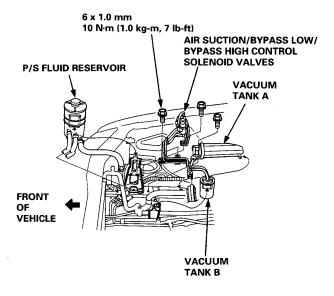
30. Remove the purge hose and vacuum hose.





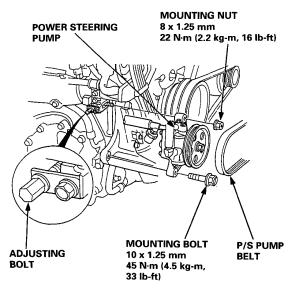


- 31. Disconnect the radiator hoses, the thermosensor connector and the radiator fan motor connectors. Disconnect and plug the ATF cooler hoses Remove the radiator assembly.
- 32. Remove vacuum pipe, air suction/bypass low/bypass high control solenoid valves, vacuum tank A and B.
  - Do not disconnect the P/S hoses.





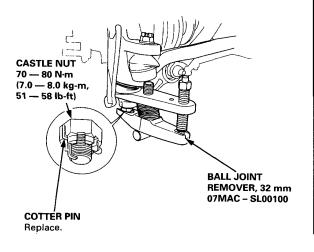
- 33. Loosen the adjusting bolt and remove the mounting bolt/nut, then remove the power steering (P/S) pump belt and pump.
  - Do not disconnect P/S hoses.



- 34. Remove the front tires/wheels.
- 35. Remove the damper forks.
- 36. Disconnect the suspension lower arm ball joints with the special tool.

CAUTION: Replace the self-locking bolts if you can easily thread a non-self-locking nut past their nylon locking inserts. (It should require 1 N·m (0.1 kg-m, 0.7 lb-ft) of torque to turn the nut on the bolt).

NOTE: Adjust the tool so the jaws are parallel to each other.

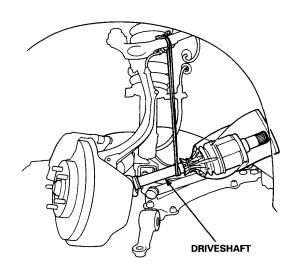


37. Remove the driveshafts. Suspend them with a rope as shown.

#### CAUTION:

- Do not pull on the driveshaft, as the CV joint may come apart.
- Use care when prying out the assembly and pull it straight to avoid damaging the differential oil seal or intermediate shaft dust seal.

NOTE: Coat all precision finished surfaces with clean engine oil or grease. Tie plastic bags over the driveshaft ends.

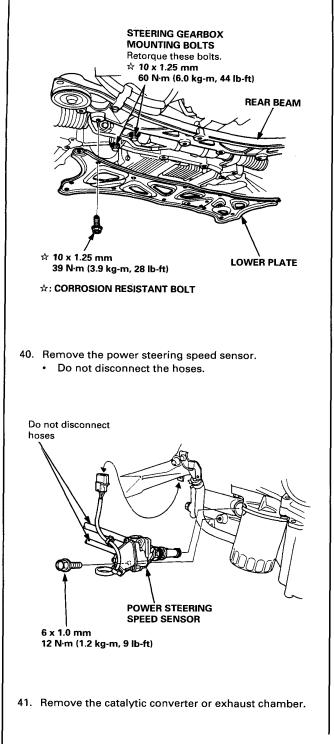


38. Raise the hoist to full height.

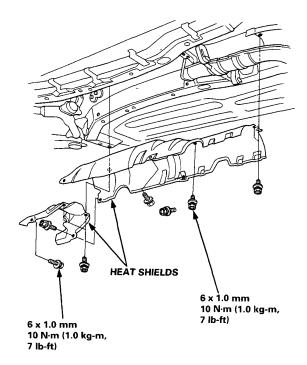
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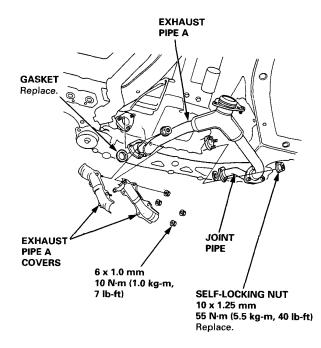
39. Remove the lower plate from the rear beam, then retighten the steering gearbox mounting bolts.



42. Remove the heat shields.

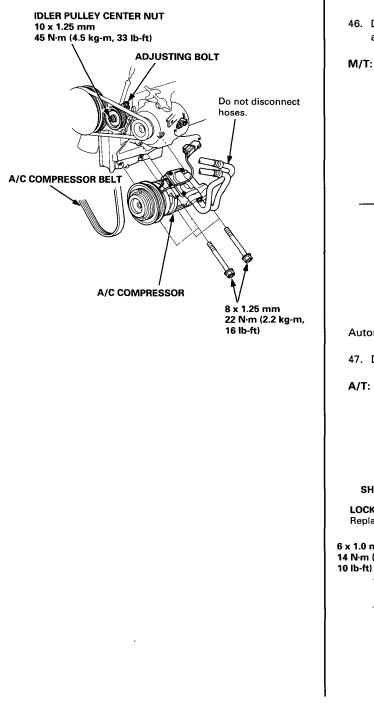


43. Remove the exhaust pipe A covers, exhaust pipe A and joint pipe assembly.



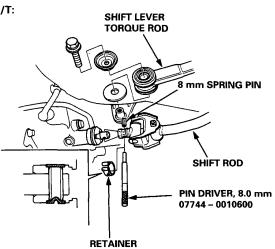


44. Loosen the idler pulley center nut and adjusting bolt, then remove the air conditioning (A/C) compressor belt and compressor.



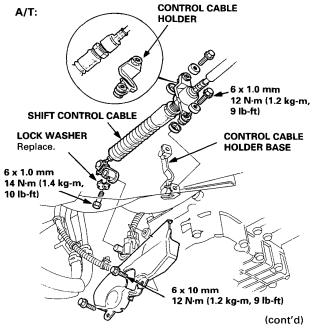
Manual transmission (M/T) equipped cars:

- 45. Remove the slave cylinder from transmission housing.
  - Do not disconnect the clutch hose.
- 46. Disconnect the shift rod and shift lever torque rod as shown.



Automatic transmission (A/T) equipped cars:

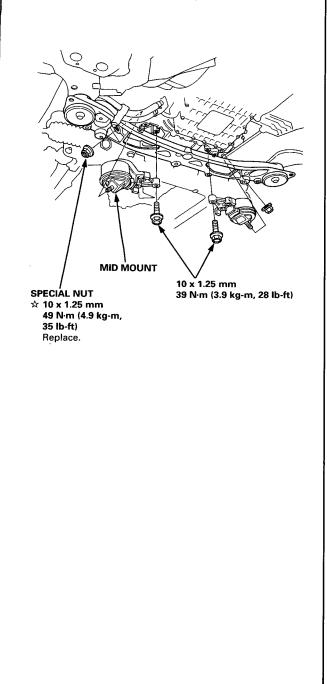
47. Disconnect the shift control cable.



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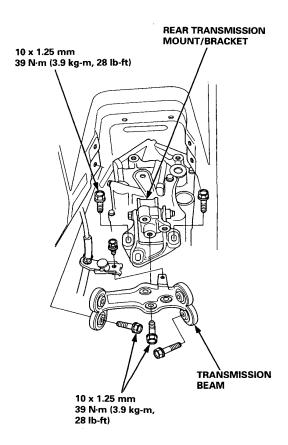
48. Remove the engine mid mount nuts and bolts.

CAUTION: After loosening the special nuts, be sure to replace them with new ones.



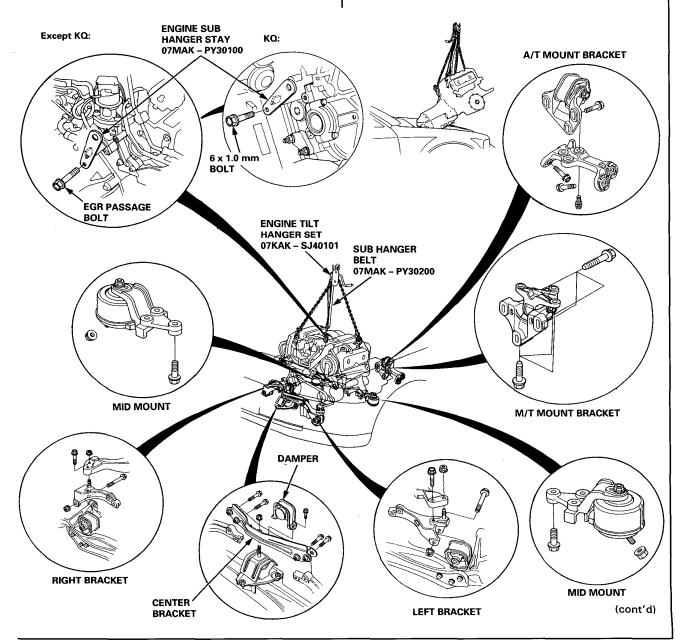
49. Remove rear transmission mount/bracket.

A/T:





- 50. Lower the hoist.
- 51. Remove the right and left brackets.
- 52. Remove the damper and center bracket.
- 53. Remove the EGR passage bolt (except KQ), then install a special tool.
- 54. Attach a chain hoist to the engine. Raise the hoist to remove all slack from the chain.
- 55. Check that the engine/transmission is completely free of vacuum hoses, fuel and engine coolant hoses, and electrical wiring.
- 56. Slowly raise the engine approximately 150 mm (6 in). Check once again that all hoses and wires have been disconnected from the engine/transmission assembly.
- 57. Raise the engine/transmission assembly all the way and remove it from the car.



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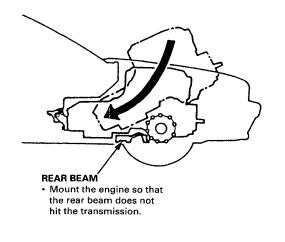
- 58. Install the engine in the reverse order of removal. After the engine is in place:
  - Torque the engine mount bolts/nuts in sequence shown below.

CAUTION: Failure to tighten the bolts in the proper sequence can cause excessive noise and vibration, and reduce bushing life: check that the bushings are not twisted or offset.

• Check that the spring clip on the end of each driveshaft clicks into place.

#### CAUTION: Use new spring clips.

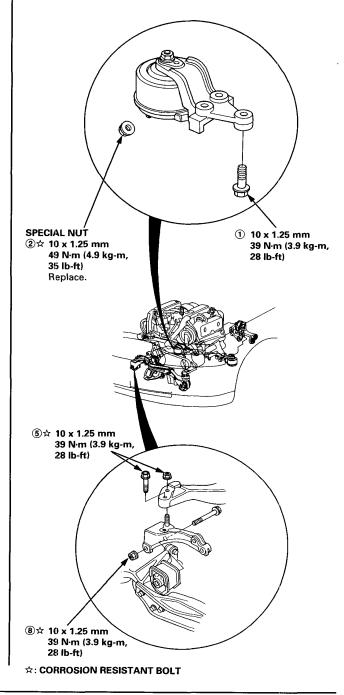
- Bleed air from the cooling system at the bleed bolt with the heater valve open.
- Adjust the throttle cable tension.
- Check the clutch pedal free play.
- Check that the transmission shifts into gear smoothly.
- Adjust the tension of the following drive belts.
- Clean battery posts and cable terminals with sandpaper, assemble, then apply grease to prevent corrosion.
- Inspect for fuel leakage.
  - After assembling fuel line parts, turn on the ignition switch (do not operate the starter) so that the fuel pump operates for approximately two seconds and the fuel is line pressurizes. Repeat this operation two or three times and check for fuel leakage at any point in the fuel line.



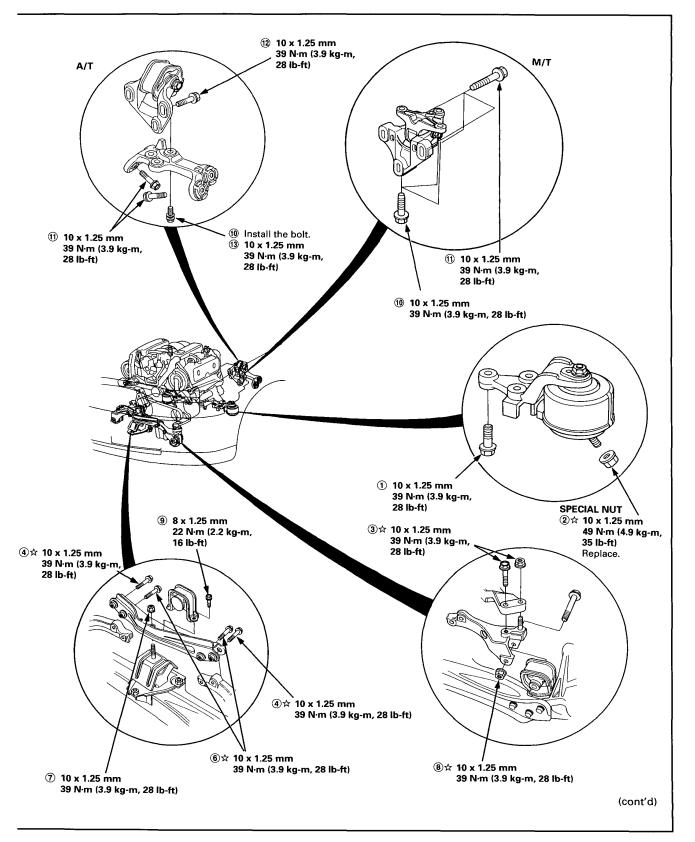
Engine Mount Bolts and Nuts Tightening Sequence:

CAUTION: After loosening the special nuts, be sure to replace them with new ones.

NOTE: Tighten the mounting bolts/nuts in the numbered sequence as shown  $(\widehat{1} - \widehat{3})$ 



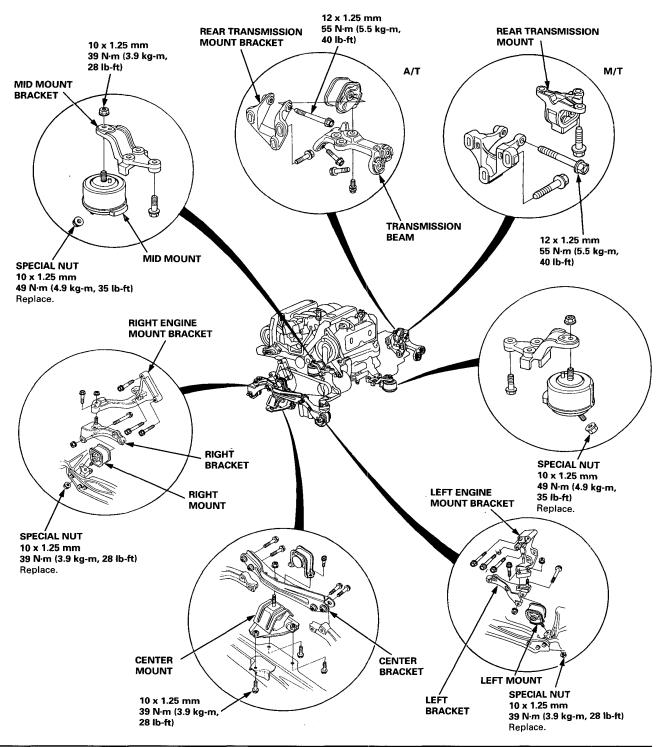




#### - (cont'd) -

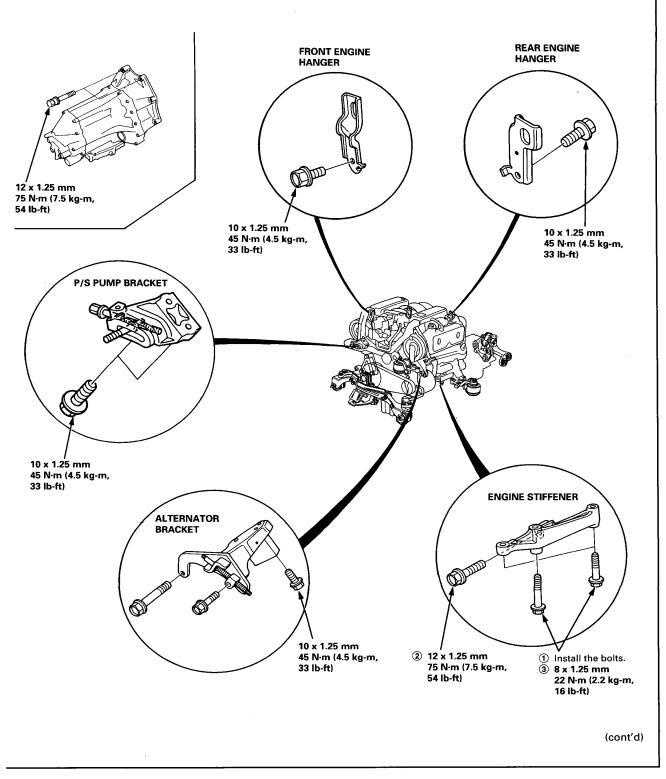
Mount and Bracket Bolts/Nuts Torque Value Specifications:

CAUTION: After loosening the special nuts, be sure to replace them with new ones.

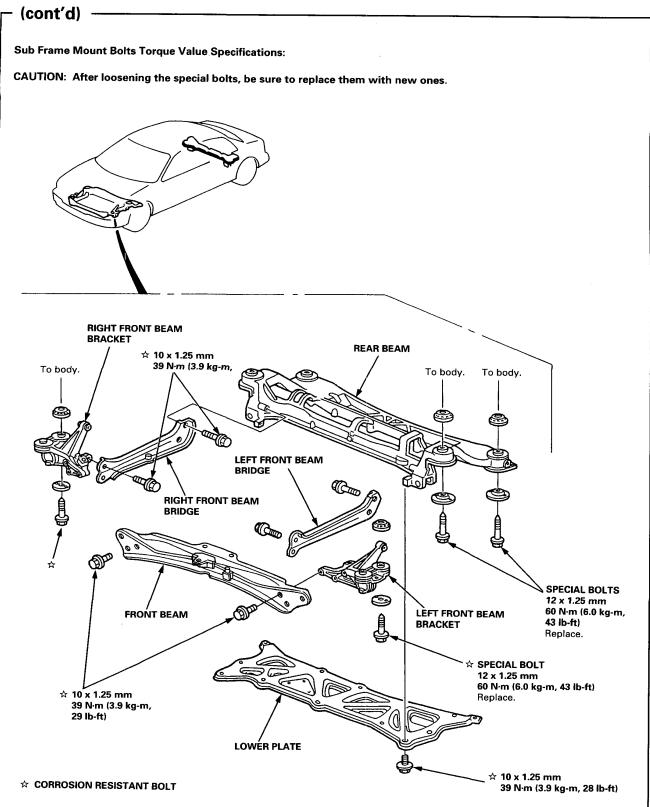




Additional Mount Bolts Torque Value Specifications:



# **Engine Removal/Installation**



## **Cylinder Head/Valve Train**

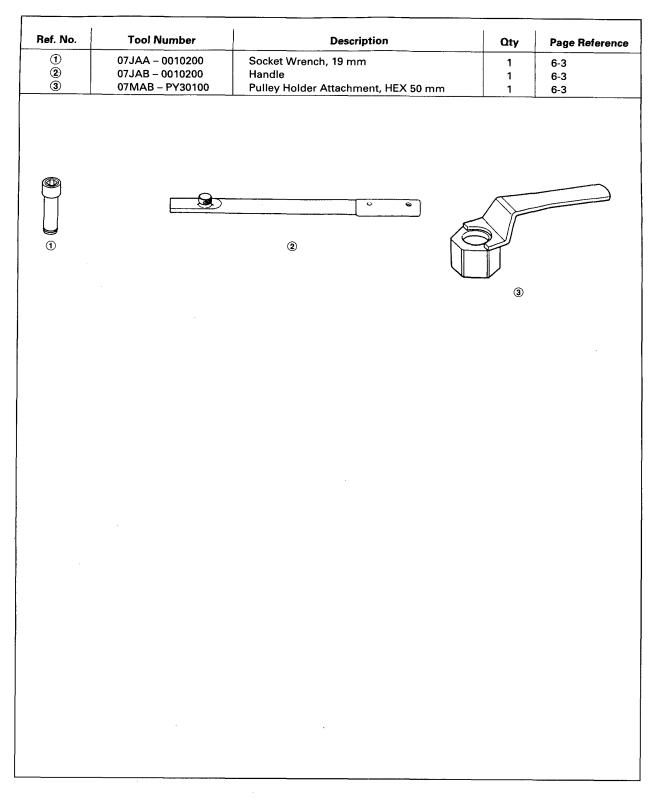
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Installation	6-7
CRANK/CYL Sensor	
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Outline of Model Changes ——

The center mount, center bracket and damper have been added.

# **Special Tools**



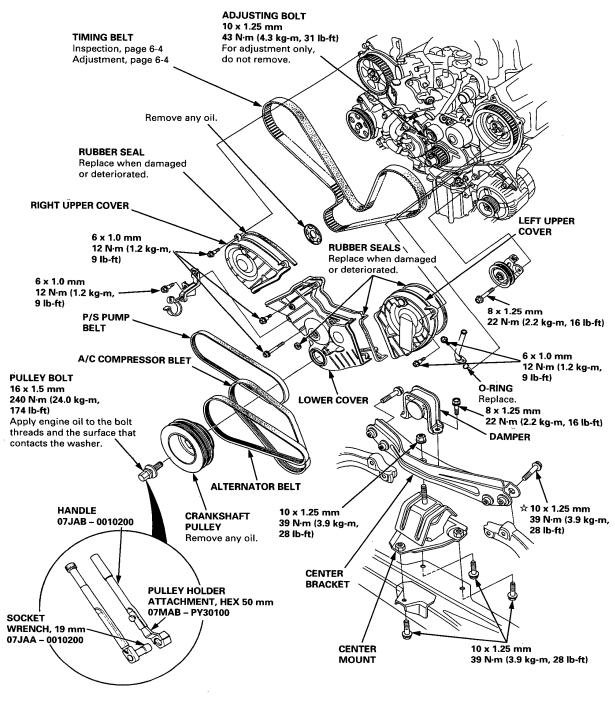
## Timing Belt



### **Illustrated Index**

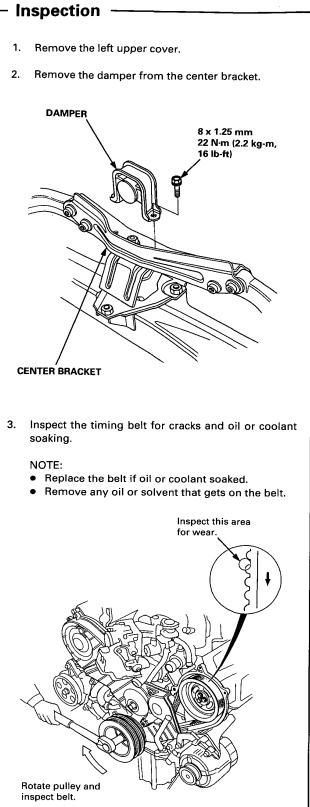
#### NOTE:

- Turn the crankshaft so that the No. 1 piston is at TDC (page 6-7).
- Replace rubber seals if damaged or deteriorated.
- Remove the damper, the center bracket and the center mount before removing the crankshaft pulley.



☆: CORROSION RESISTANT BOLT

# **Timing Belt**



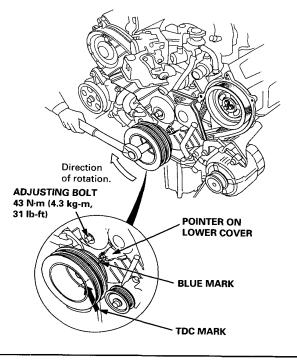
### **Tension Adjustment**

#### CAUTION:

- Always adjust timing belt tension with the engine cold.
- Do not rotate the crankshaft when adjusting bolt is loose.

#### NOTE:

- Tensioner is spring-loaded to apply proper tension to the belt automatically after making the following adjustment.
- Inspect the timing belt before adjusting the belt tension.
- Always rotate the crankshaft clockwise when viewed from the pulley side. Rotating it counterclockwise may result in improper adjustment of the belt tension.
- 1. Remove the left upper cover.
- 2. Remove the damper from the center bracket (as shown in left column).
- 3. Set the No. 1 piston at TDC (page 6-7).
- Rotate the crankshaft clockwise 9-teeth on camshaft pulley (The blue mark on crankshaft pulley should line up with the pointer on lower cover).
- 5. Loosen the timing belt adjusting bolt 180°.
- Tighten the adjusting bolt torque to 43 N·m (4.3 kg-m, 31 lb-ft).



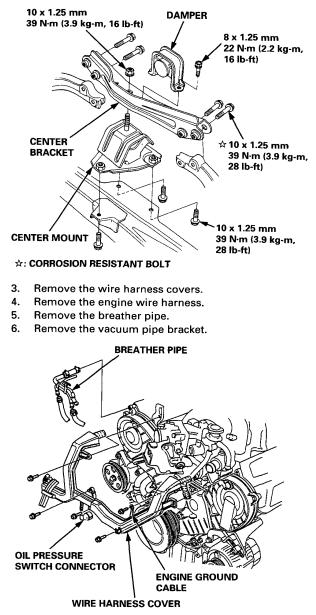


### Removal

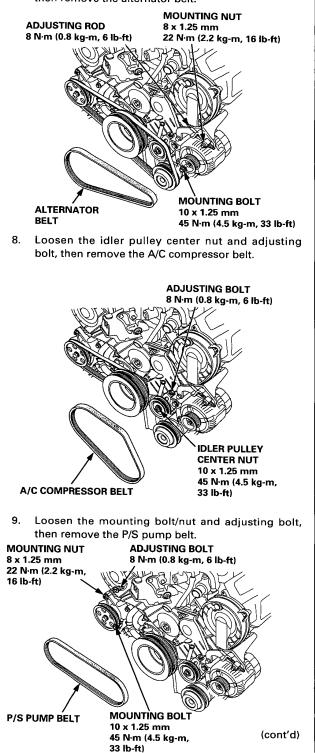
CAUTION: Inspect the water pump when replacing the timing belt.

NOTE:

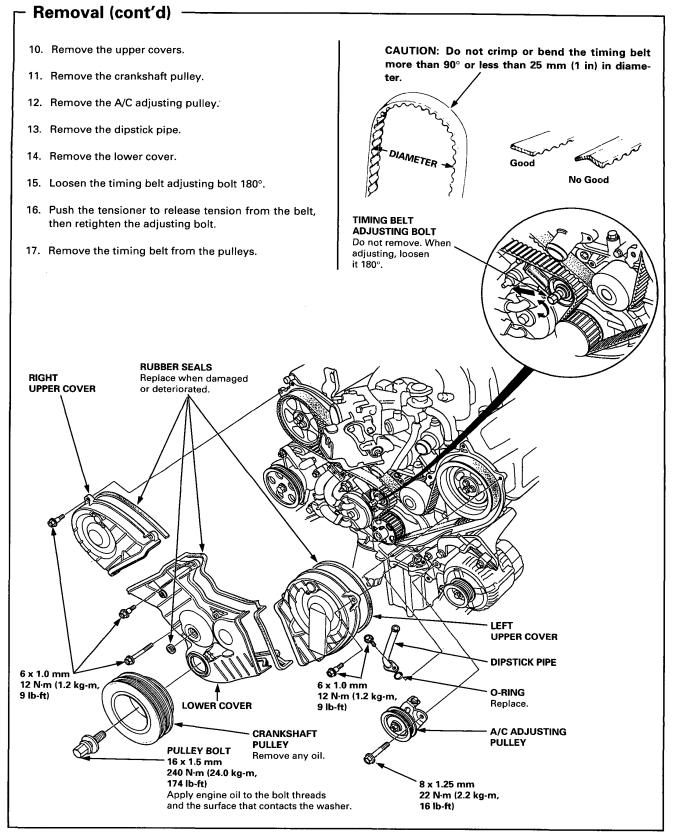
- Turn the crankshaft so that the No. 1 piston is at top dead center (page 6-7).
- Before removing the timing belt, mark direction of rotation if it is to be reused.
- 1. Disconnect the negative terminal from the battery.
- 2. Remove the damper, center bracket and center mount.



7. Loosen the mounting nut/bolt and adjusting rod, then remove the alternator belt.



# **Timing Belt**

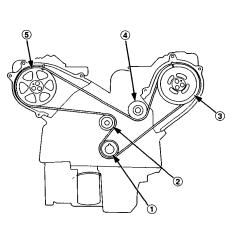




### Installation

#### CAUTION:

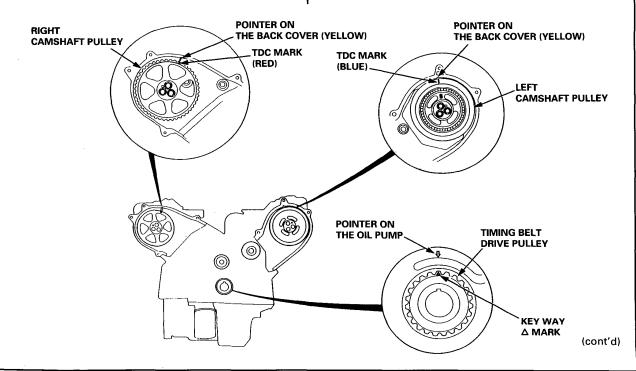
- Do not rotate the crankshaft or camshafts with the timing belt removed. The pistons may hit the valves and cause damage.
- When installing the timing belt, turn the crankshaft pulley clockwise 15° past No. 1 cylinder TDC. After adjusting the left and right camshaft pulleys to TDC, turn the crankshaft pulley counterclockwise back to TDC (Top Dead Center).
- Inspect the water pump when replacing the timing belt.
- Install the timing belt in the reverse order of removal; Only key points are described here.
- 2. Remove all spark plugs.
- 3. Position the crankshaft and the camshaft pulleys as shown before installing the timing belt.
  - (A) Set the crankshaft so that the No. 1 piston is at top dead center. Align the △ mark on the teeth side of the timing belt drive pulley to the pointer on the oil pump.
  - (B) Align the TDC mark on the left camshaft pulley to the pointer on the left back cover.
  - © Align the TDC mark on the right camshaft pulley to the pointer on the right back cover.



4. Install the timing belt tightly in the sequence shown.

(1) Timing belt drive pulley (crankshaft)  $\rightarrow$  (2) Adjusting pulley  $\rightarrow$  (3) Left camshaft pulley  $\rightarrow$  (4) Water pump pulley  $\rightarrow$  (5) Right camshaft pulley.

• For easy installation, advance the right camshaft pulley by about a half tooth from the TDC position.

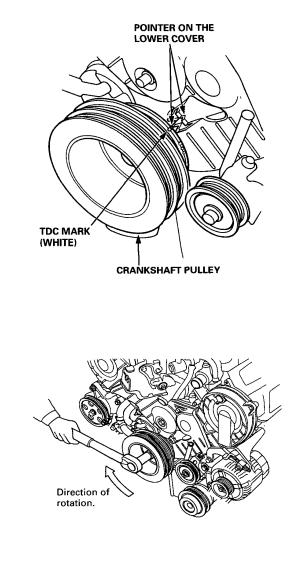


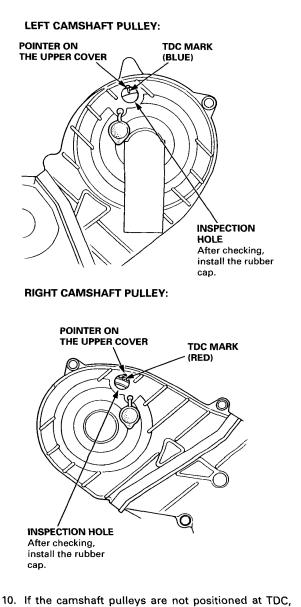
# **Timing Belt**

### Installation (cont'd)

- 5. Loosen the adjust bolt, and retighten it after tensioning the belt.
- 6. Install the lower cover and crankshaft pulley.
- 7. Rotate the crankshaft about 5 or 6 turns clockwise so that the belt may fit in position on the pulleys.
- 8. Carry out timing belt tension adjustment (page 6-4).
- 9. Check the crankshaft pulley and the camshaft pulleys at TDC.

#### **CRANKSHAFT PULLEY:**





10. If the camshaft pulleys are not positioned at TDC, remove the timing belt and adjust the positioning following the procedure on page 6-7, then reinstall the timing belt.

NOTE: Refer to page 6-5 for timing belt removal.

11. After installation, adjust the tension of each belt.

## **CRANK/CYL Sensor**

### - Replacement



Install the CRANK/CYL sensor in the reverse order 1. Turn the crankshaft so that the No. 1 piston is at top 7. dead center (page 6-7). of removal; • Refer to page 6-7 when installing the timing belt. 2. Remove the upper covers. 3. Remove the timing belt from the right and left camshaft pulleys. Remove the left camshaft pulley. 4. 5. Remove the left back cover. Remove the CRANK/CYL sensor from the left cylin-6. der head. RIGHT **UPPER COVER** 6 x 1.0 mm 12 N·m (1.2 kg-m, 9 lb-ft) RUBBER SEALS Replace when damaged or deteriorated. CRANK/CYL 8 x 1.25 mm SENSOR 32 N·m (3.2 kg-m, 23 lb-ft) 6 x 1.0 mm 12 N·m (1.2 kg-m, 9 lb-ft) LEFT CAMSHAFT PULLEY RUBBER SEAL Replace when damaged or deteriorated. LEFT UPPER COVER 6 x 1.0 mm 12 N·m (1.2 kg-m, 9 lb-ft)

### **Fuel and Emissions**

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Emission Control System	
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#### SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

The Legend Supplemental Restraint System (SRS) includes a driver's airbag, located in the steering wheel hub, a front passenger's airbag, located in the dashboard above the glove box, and seat belt pretensioners, located in the seat belt retractors.

Information necessary to safely service the SRS is included in this shop manual. Items marked with an asterisk (\*) on the contents page include, or are located near, SRS components. Servicing, disassembling or replacing these items will require special precautions and tools, and should therefore be done only by an authorized Honda or Acura dealer.

#### A WARNING

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

Outline of Model Change -

• The ECU has been modified.

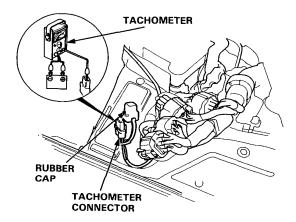
## **Idle Control System**

### - Idle Speed Setting -

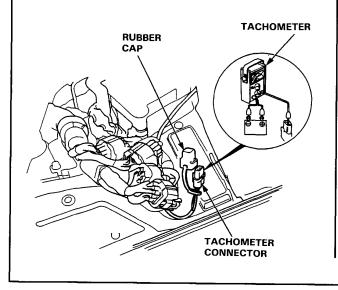
#### Inspection/Adjustment

- 1. Start the engine and warm it up to normal operating temperature (the cooling fan comes on).
- 2. Connect a tachometer.
  - Contact type Remove the rubber cap from the tachometer connector and connect a tachometer.

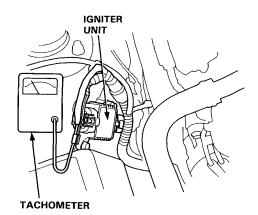
[LHD]



[RHD]



 Non-contact type Connect a tachometer to loop of igniter unit.



3. Set the steering in the straight ahead position, and check idling in no-load conditions in which the headlights, blower fan, rear defogger, cooling fan, and air conditioner are not operating. (All accessories turned off.)

NOTE: (KS) Remove No. 12 RUNNING LIGHT (7.5 A)fuse in the under-dash fuse box, then check that the headlights and side marker lights are off.

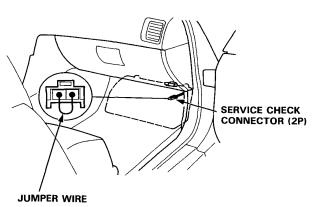
Idle speed should be:

M/T	650 ± 50 min <sup>-1</sup> (rpm)
A/T	600 ± 50 min <sup>-1</sup> (rpm) [in $\mathbb{N}$ or $\mathbb{P}$ position]

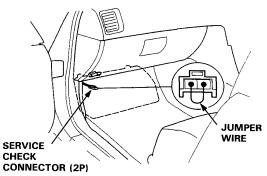


4. Connect the service check connector terminal with *a* jumper wire.



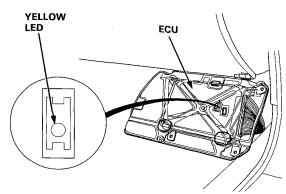


#### [RHD]

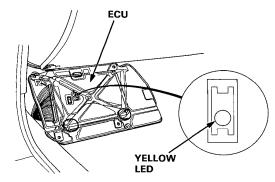


5. Check the yellow LED display at the ECU under the dash on the passenger side.

#### [LHD]



#### [RHD]

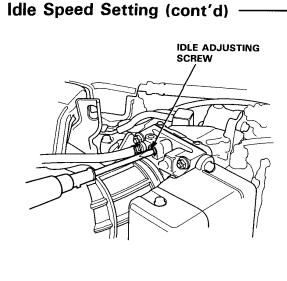


- If yellow LED is off Do not adjust idle adjusting screw. Go on to step 6.
- If yellow LED is blinking Adjust idle adjusting screw 1/4 turn clockwise.
- If yellow LED is on Adjust idle adjusting screw 1/4 turn counterclockwise.

NOTE: On a new engine (less than 500 km or 310 miles) the yellow LED may light even though the idle adjusting screw is properly set. However, no adjustment should be make.

(cont'd)

# Idle Control System



- Check that the yellow LED goes off after approximately 30 seconds.
   If it does not go off, rotate the idle adjusting screw by 1/4 turn in the same direction, and repeat the same operation until the yellow LED goes off.
- 6. Check the idle speed in the following conditions.
  - With headlights (Hi) and rear window defogger ON.
  - While the steering wheel is turning.
  - With air conditioner compressor on.

#### Idle speed should be:

	M/T	650 ± 50 min <sup>-1</sup> (rpm)
-	A/T	$600 \pm 50 \text{ min}^{-1}$ (rpm) [in N or P position]

• If applicable, with automatic transmission in gear (except N or P position).

Idle should remain stable at: 600  $\pm$  50 min<sup>-1</sup> (rpm)

7. Remove the jumper wire from the service check connector terminal.

NOTE: When there is no code stored, the Check Engine Light will stay on, if the service check connector is jumped.

## **Emission Control System**



### Tailpipe Emission -

#### Inspection

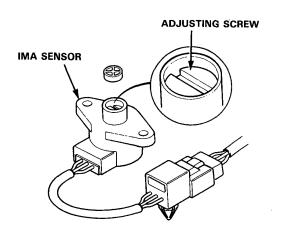
**A** WARNING Do not smoke during this procedure. Keep any open flame away from your work area.

- 1. Starting the engine and warm it up to normal operating temperature (the cooling fan comes on) by driving the car on the road.
- 2. Connect a tachometer (see page 11-2).
- 3. Check idle speed and adjust the idle speed, if necessary (see page 11-2).
- 4. Warm up and calibrate the CO meter according to the meter manufacturer's instructions.
- 5. Check idle CO with the headlights, heater blower, rear window defogger, cooling fan, and air conditioner off.

#### Specified CO%: The cars with CATA: 0.1 % maximum

- The cars without CATA: 1.0  $\pm$  1.0 %
- If unable to obtain this reading: On with CATA models, see ECU troubleshooting guide.
   On without CATA models, adjust by turning the

adjusting screw of the IMA sensor.



 If unable to obtain a CO reading of specified % by this procedure, check the engine tune-up condition.

## **Emission Control System**

### - Evaporative Emission Controls

#### Description

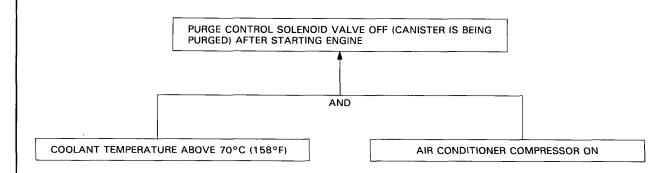
The evaporative controls are designed to minimize the amount of fuel vapor escaping to the atmosphere. The system consists of the following components:

#### A. Charcoal Canister

A canister is used for the temporary storage of fuel vapor until the fuel vapor can be purged from the canister into the engine and burned.

#### B. Vapor Purge Control System

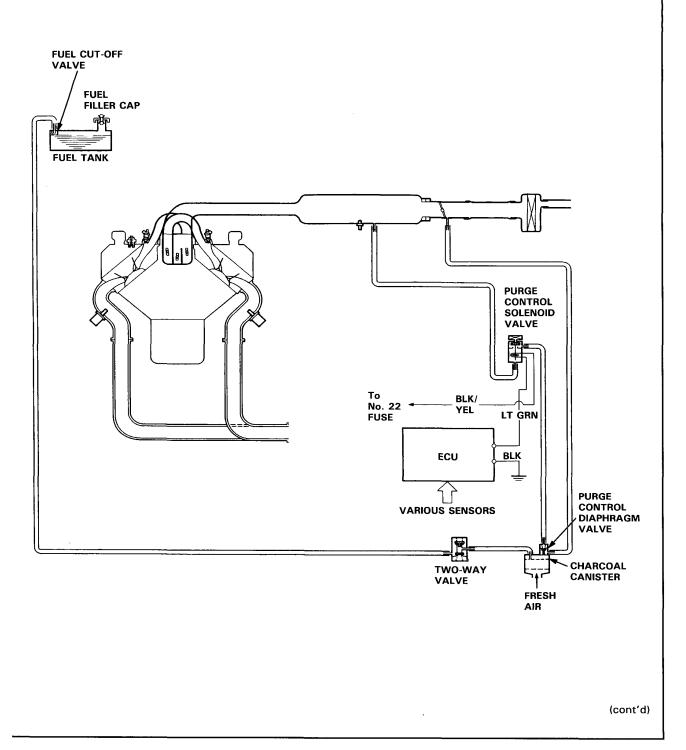
Canister purging is accomplished by drawing fresh air through the canister and into a port on the throttle body. The purging vacuum is controlled by the purge control diaphragm valve and the purge control solenoid valve.



#### C. Fuel Tank Vapor Control System

When fuel vapor pressure in the fuel tank is higher than the set value of the two-way valve, the valve opens and regulates the flow of fuel vapor to the canister.

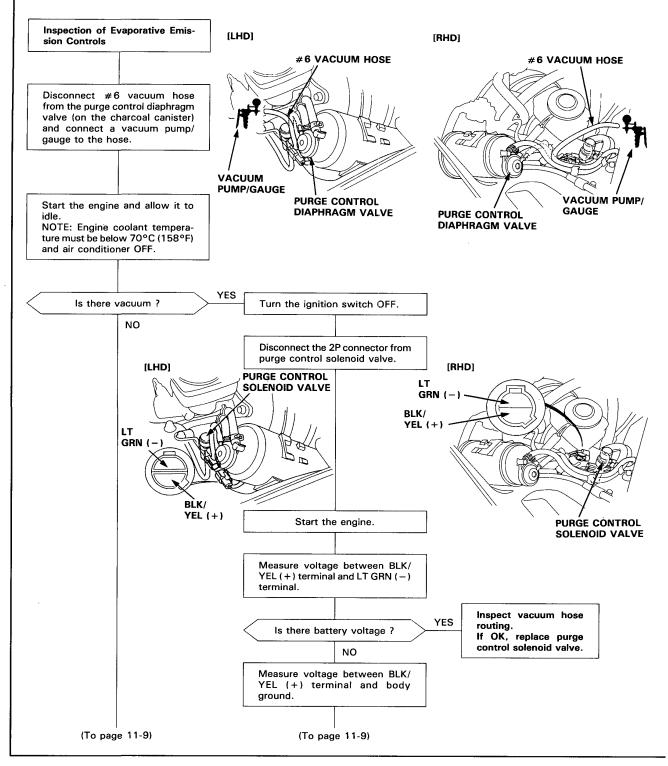


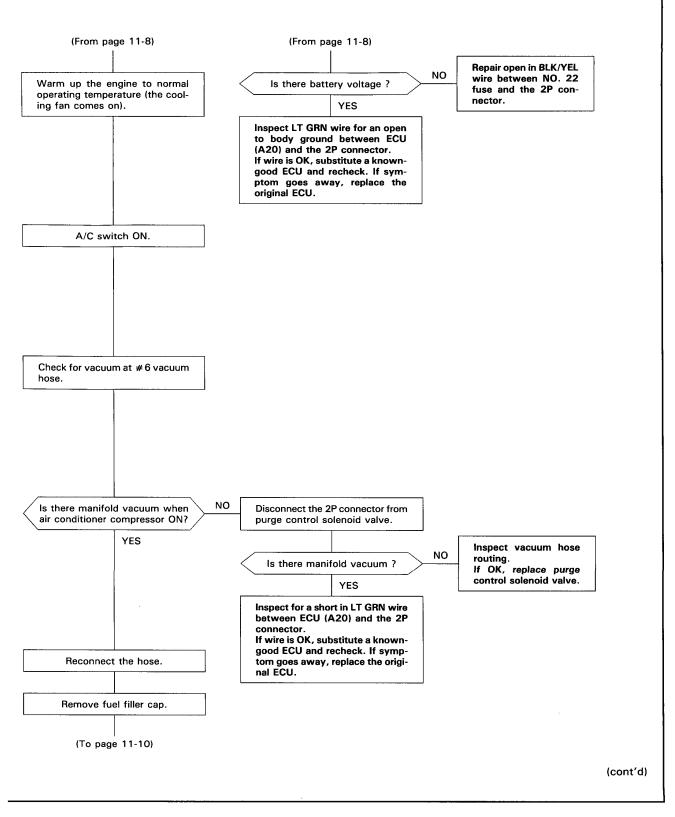


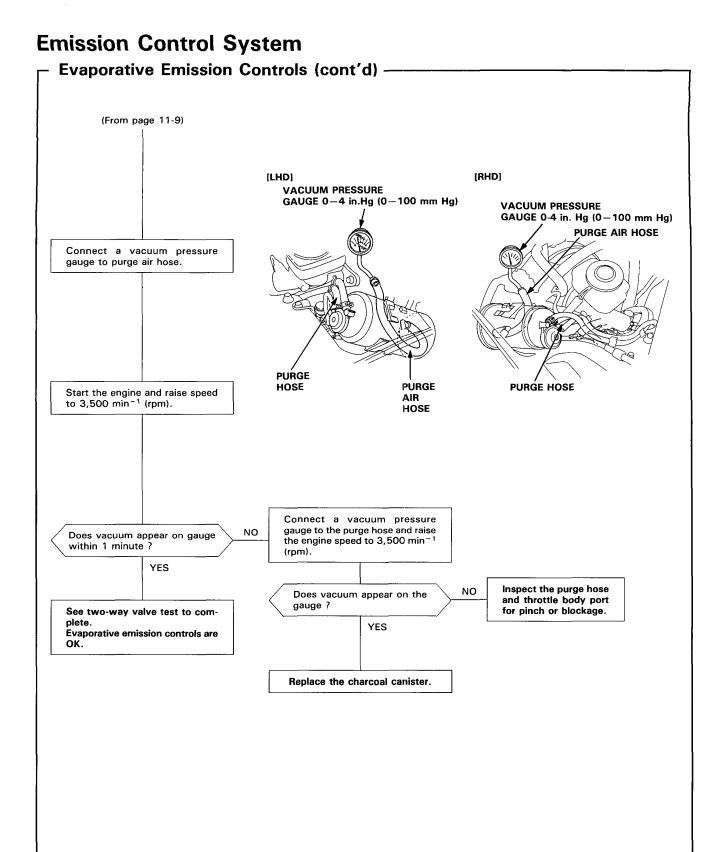
## **Emission Control System**

### Evaporative Emission Controls (cont'd) -

**Troubleshooting Flowchart** 







### 11-10

#### SUPPLEMENTAL RESTRAINT SYSTEM (SRS) (If automatic transmission maintenance is required)

The Legend Supplemental Restraint System (SRS) includes a driver's airbag, located in the steering wheel hub, a front passenger's airbag, located in the dashboard above the glove box, and seat belt pretensioners, located in the seat belt retractors.

Information necessary to safely service the SRS is included in this shop manual. Items marked with an asterisk (\*) on the contents page include, or are located near, SRS components. Servicing, disassembling or replacing these items will require special precautions and tools, and should therefore be done only by an authorized Honda or Acura dealer.

#### A WARNING

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

### **Automatic Transmission**

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Countershaft
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*Shift Cable
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*Gearshift Selector 14-32



#### Outline of Model Changes —

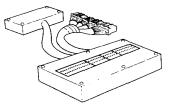
- · The hydraulic flow circuit has been modified.
- The A/T speed sensors have been modified.
- · The shift points has been changed.
- · The transmission rear mount, mount bracket and heat shields have been changed.
- Torque value of mainshaft and countershaft locknuts has been changed.
- The main valve body, secondary valve body and rear cover have been modified.
- · Installed depth of transmission housing oil seal has been changed.
- · The gearshift selector has modified (KQ model).

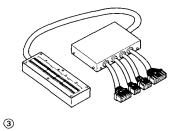
# Special Tools

Ref. No.	Tool Number	Description	Qty	Page Reference	
1	07LAC-PW50101 or 07LAC-PW50100	Extension Shaft Puller	1	14-11	
2	07LAD-SM40100	Oil Seal Driver Attachment	1	14-24	
3	07LAJ-PT30100 or 07LAJ-PT3010A	Test Harness	1	14-5	
4	07MAF-PY40101 or 07MAF-PY40100	Extension Shaft Installer	1	14-27	
5	07746-0010600	Attachment, 72 x 75 mm	1	14-24	
6	07749-0010000	Driver	1 1	14-24	



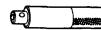












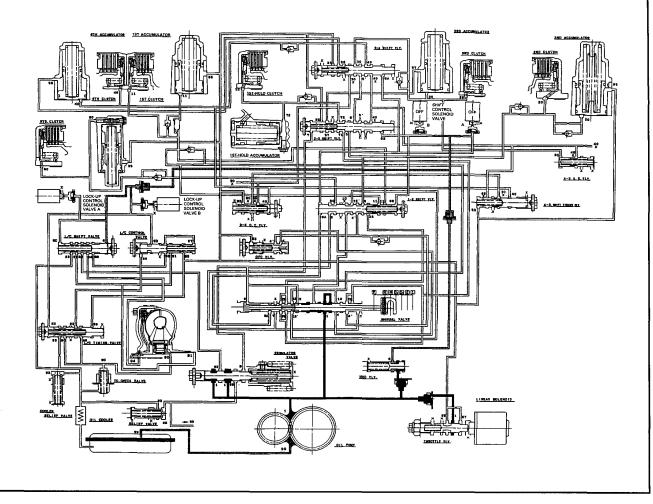
# Description



## - Hydraulic Flow

Hydraulic flow has been changed.

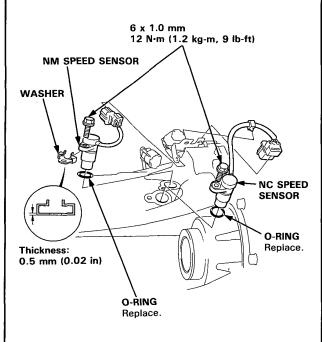
NO.	DESCRIPTION OF PRESSURE	NO.	DESCRIPTION OF PRESSURE	NO.	DESCRIPTION OF PRESSURE
_1	LINE	7	LINE	71	1ST-HOLD CLUTCH
2	LINE	10	1ST CLUTCH	72	1ST-HOLD CLUTCH
3	LINE	10′	1ST CLUTCH	90	TORQUE CONVERTER
4	LINE	11	1ST CLUTCH	91	TORQUE CONVERTER
4'	LINE	20	2ND CLUTCH	92	TORQUE CONVERTER
4''	LINE	25	LINE	93	OIL COOLER
5	LINE	30	3RD CLUTCH	94	TORQUE CONVERTER
5′	LINE	40	4TH CLUTCH	95	LUBRICATION
6	MODULATOR	50	REVERSE CLUTCH	96	TORQUE CONVERTER
6A	MODULATOR	55	THROTTLE B	99	SUCTION
6B	MODULATOR	56	THROTTLE B	X	BLEED
6C	MODULATOR	57	THROTTLE B		
6D	MODULATOR	70	1ST-HOLD CLUTCH		



# A/T Speed Sensors

## - Replacement -

- KE, KU, KG, KF, KS, KX models
- 1. Remove the 6 mm bolt from the transmission housing and remove the A/T speed sensors (NM and NC speed sensors).
- 2. Replace the O-ring with a new one before reassembling the A/T speed sensors.

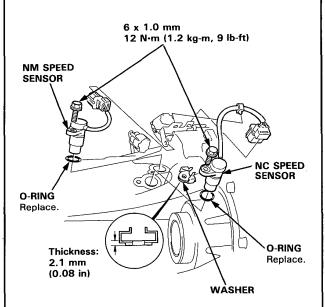


NOTE: Install the washer to the NM speed sensor before reassembling the NM speed sensor.

### **Replacement** -

#### KY, KQ, KT models

- 1. Remove the 6 mm bolt from the transmission housing and remove the A/T speed sensors (NM and NC speed sensors).
- 2. Replace the O-ring with a new one before reassembling the A/T speed sensors.



NOTE: Install the washer to the NC speed sensor before reassembling the NC speed sensor.

## **Road Test**



NOTE: Warm up the engine to operating temperature (the radiator fan comes on). 1. Apply parking brake and block the wheels. Start the engine, then move the selector lever to D4 position while depressing the brake pedal. Depress the accelerator pedal, and release it suddenly. Engine should not stall. 2. Repeat same test in D<sub>3</sub> position. Shift the selector lever to D4 position and check that the shift points occur at approximate speeds shown. Also 3. check for abnormal noise and clutch slippage. NOTE: Throttle angle sensor voltage represents the throttle opening. -1. Connect the Test Harness between the ECU and connector. -2. Set the digital circuit tester to check voltage between D11 (+) terminal and D22 (-) terminal for the throttle angle sensor. CAUTION: • All SRS electrical wiring harnesses are covered with vellow outer insulation. • Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54). Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring. **SRS MAIN HARNESS** (Covered with yellow outer insulation) Throttle Angle Sensor Voltage Throttle Opening 0.822-0.878 V 0.5/8 Throttle 2.175-2.325 V 3.5/8 Throttle ECU D11 (+) 000000000000 00000000000000 00000000 000000 0 **DIGITAL CIRCUIT** 00000000000 000000 00000000000000 00000000 TESTER D22 (-) **TEST HARNESS** 07LAJ-PT30100 or 07LAJ-PT3010A NOTE: LHD is shown; RHD is similar. (cont'd)

# **Road Test**

– (cont'd) —

### KE, KU, KG, KF, KS, KX models: D4 Position

Upshift

		1st→2nd	2nd→3rd	3rd→4th	Lock-up Clutch ON
Throttle angle sensor voltage: 0.822-0.878 V (0.5/8 throttle)	km/h	15-19	30-35	42-49	3237
Coasting down-hill from a stop	mph	9-12	19-22	26-30	2023
Throttle angle sensor voltage: 2.175–2.325 V (3.5/8 throttle) Acceleration from a stop	km/h	34-40	61-69	93-102	120 129
	mph	21-25	38-43	58-63	7580
Full-throttle Acceleration from a stop	km/h	62-70	112-125	174-191	169-186
	mph	39-43	70-78	108-119	105-116

#### • Downshift

		Lock-up Clutch OFF	4th→3rd	3rd→2nd	2nd→1st (3rd→1st)
Throttle angle sensor voltage: 0.822–0.878 V (0.5/8 throttle) Coasting or braking to a stop	km/h	31-36	28-33		9-14
	mph	19-22	17-21		6-9
Throttle angle sensor voltage: 2.175–2.325 V (3.5/8 throttle) When car is slowed by increased grade, wind, etc.	km/h	96105			
	mph	60-65			
Full-throttle When car is slowed by increased grade, wind, etc.	km/h	162-178	152-168	92-103	4351
	mph	101-111	94-104	57-64	27-32

#### KG model with Austria: D4 Position

#### • Upshift

		1st→2nd	2nd → 3rd	3rd→4th	Lock-up Clutch ON
Throttle angle sensor voltage: 0.822–0.878 V (0.5/8 throttle) Coasting down-hill from a stop	km/h	15-19	30-35	42-49	32-37
	mph	9-12	19-22	26-30	20-23
Throttle angle sensor voltage: 2.175–2.325 V (3.5/8 throttle) Acceleration from a stop	km/h	34-40	61-69	93-102	120-129
	mph	21-25	38-43	58-63	75-80
Full-throttle Acceleration from a stop	km/h	63-71	112-125	174-191	169-186
	mph	39-44	70-78	108-119	105-116

#### • Downshift

		Lock-up Clutch OFF	4th→3rd	3rd→2nd	2nd→1st (3rd→1st)
Throttle angle sensor voltage: 0.822–0.878 V (0.5/8 throttle)	km/h	31-36	28-33		9-14
Coasting or braking to a stop	mph	19-22	17-21		6-9
Throttle angle sensor voltage: 2.175–2.325 V (3.5/8 throttle) When car is slowed by increased grade, wind, etc.	km/h	96-105			
	mph	60-65			
Full-throttle When car is slowed by	km/h	162-178	152-168	92-103	43-51
increased grade, wind, etc.	mph	101-111	94-104	57-64	27-32



#### KY, KQ, KT models: D4 Position

#### • Upshift

		1st→2nd	2nd→3rd	3rd → 4th	Lock-up Clutch ON
Throttle angle sensor voltage: 0.822-0.878 V (0.5/8 throttle)	km/h	14-19	24-30	36-43	27-32
Coasting down-hill from a stop	mph	9-12	15-18.5	22.5-27	16.5-20
Throttle angle sensor voltage: 2.175–2.325 V (3.5/8 throttle) Acceleration from a stop	km/h	32-39	58-67	82-92	115-124
	mph	20-24	36-41.5	51-57	71.5-77
Full-throttle Acceleration from a stop	km/h	59-68	105-118	148-166	153-171
	mph	36.5-42	65-73.5	92-103	95-106

#### Downshift

		Lock-up Clutch OFF	4th→3rd	3rd→2nd	2nd→1st (3rd→1st)
Throttle angle sensor voltage: 0.822-0.878 V (0.5/8 throttle) Coasting or braking to a stop	km/h	25-31	28-34		9-14
	mph	15.5-19	17.5-21		5.5-9
Throttle angle sensor voltage: $2.175-2.325$ V ( $3.5/8$ throttle) When car is slowed by increased grade, wind, etc.	km/h	94-103			
	mph	58.5-64			
Full-throttle When car is slowed by increased grade, wind, etc.	km/h	145-162	137-154	87-98	39-48
	mph	90-100.5	85-95.5	54-61	24.5-30

4. Accelerate to about 35 mph (57 km/h) so the transmission is in 4th, then shift D<sub>4</sub> to 2 position. The car should immediately begin slowing down from engine braking.

CAUTION: Do not shift from  $D_4$  or  $D_3$  position to 2 or 1 position at speeds over 62 mph (100 km/h); you may damage the transmission.

5. Check for abnormal noise and clutch slippage in the following position.

#### 1 (1st Gear) Position

- -1. Accelerate from a stop at full throttle. Check that there is no abnormal noise or clutch slippage.
- -2. Upshifts should not occur with the selector in this position.

#### 2 (2nd Gear) Position

- -1. Accelerate from a stop at full throttle. Check that there is no abnormal noise or clutch slippage.
- -2. Upshifts and downshifts should not occur with the selector in this position.

#### R (Reverse) Position

Accelerate from a stop at full throttle, and check for abnormal noise and clutch slippage.

#### 6. Test in P (Parking) Position

Park car on slope (approximately 16°), apply the parking brake, and shift into P position. Release the brake; the car should not move.

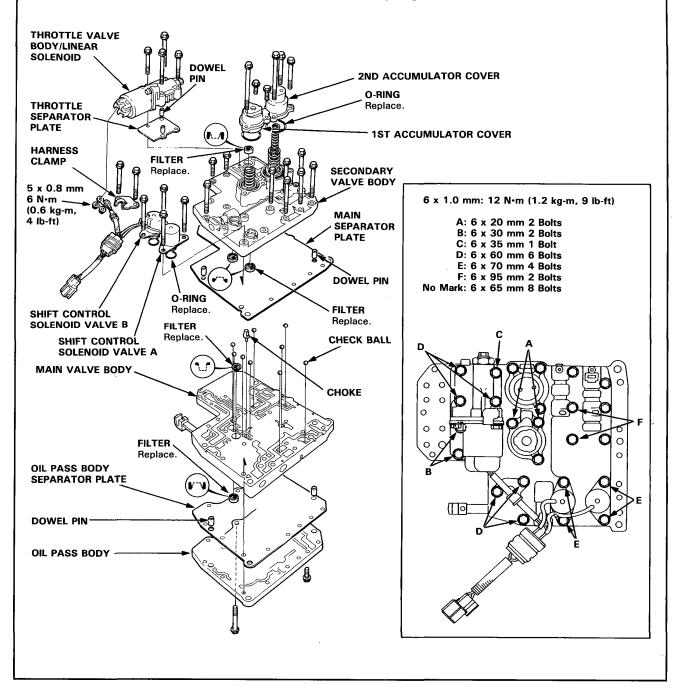
## Lower Valve Body Assembly

### - Disassembly/Reassembly

#### NOTE:

- Clean all parts thoroughly in solvent or carburetor cleaner, and dry with compressed air.
- Blow out all passages.
- Coat all parts with ATF before reassembly.
- Replace the O-rings and filters.
- Install the filters in the direction shown.

CAUTION: Do not use a magnet to remove the check balls; it may magnetize the balls.



## Transmission



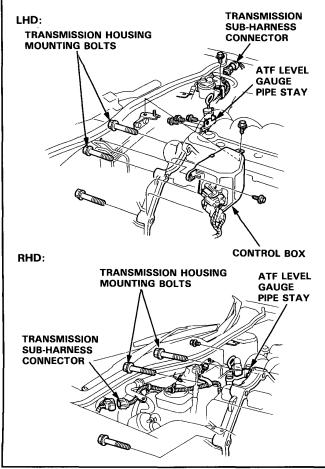
#### Removal -

**A WARNING** Make sure lifts, jacks and safety stands are placed properly, and hoist brackets are attached to the correct position on the engine (see section 1).

- 1. Disconnect the battery negative (-) and positive (+) cables from the battery.
- 2. Remove the strut bar.
- 3. Remove the control box. (LHD only)

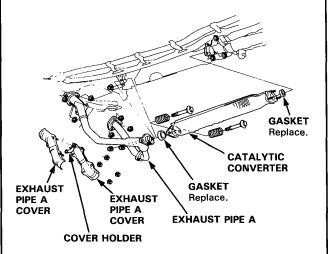
CAUTION: Do not remove the vacuum tubes from the control box.

- 4. Disconnect the transmission sub-harness connector and remove the transmission sub-harness clamp.
- 5. Remove the bolt(s) securing the ATF level gauge pipe stay.
- 6. Remove the transmission housing mounting bolts.
- 7. Drain automatic transmission fluid (ATF). Reinstall the drain plug with a new sealing washer.

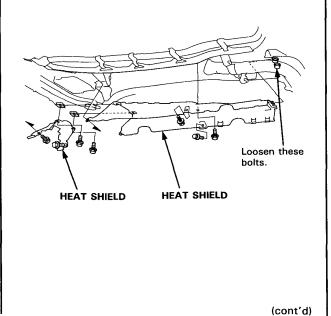


- 8. Remove the catalytic converter.
- 9. Remove the exhaust pipe A cover then remove the exhaust pipe A.

NOTE: All nuts shown in this figure are self-locking, replace them when installing.



10. Remove the heat shields.



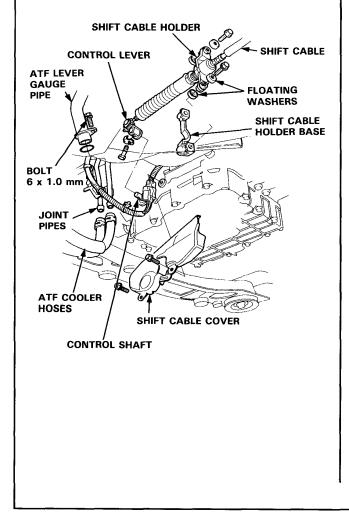
## Transmission

## – Removal (cont'd)

11. Remove the ATF cooler hoses at the joint pipes. Turn the ends up to prevent ATF flowing out.

NOTE: Check for any signs of leakage at hose joints.

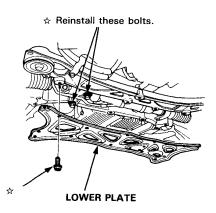
- 12. Remove the tramsmission sub-harness connector from the shift cable cover then remove the shift cable cover.
- 13. Remove the shift cable holder from the shift cable holder base.
- 14. Remove the control lever from the control shaft.
- 15. Remove the bolt securing the ATF level gauge pipe then remove the ATF level gauge pipe from the torque converter housing.



16. Remove the lower plate and reinstall the steering gearbox mounting botls.

NOTE: LHD is shown. The locations of the steering gearbox mounting bolts on the RHD are symmetrical.

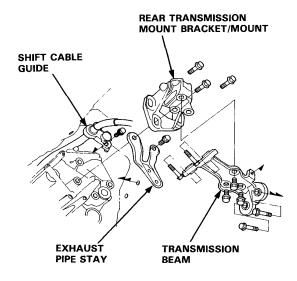
☆: Corrosion resistant bolt



17. Remove the shift cable guide.

CAUTION: Take care not to bend the shift cable.

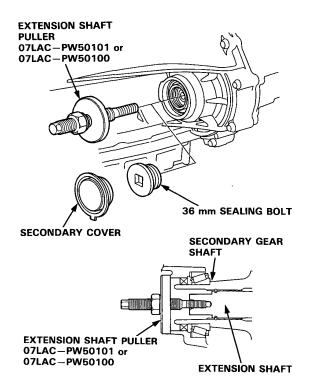
18. Remove the transmission beam, rear transmission mount bracket/mount and exhaust pipe stay.



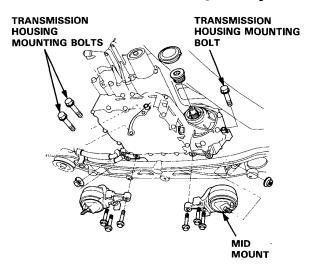
- 19. Shift to P position rotating the control shaft.
- 20. Remove the secondary cover and 36 mm sealing bolts.



21. Remove the extension shaft from the differential using the special tool as shown.



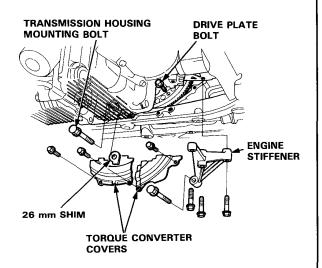
- 22. Place a jack under the transmission and raise the transmission just enough to take weight off of the mounts, then remove the mid mounts.
- 23. Remove the transmission housing mounting bolts.



- 24. Remove the engine stiffener.
- 25. Remove the torque converter covers.
- 26. Remove the drive plate bolts one at a time while rotating the crankshaft pulley.

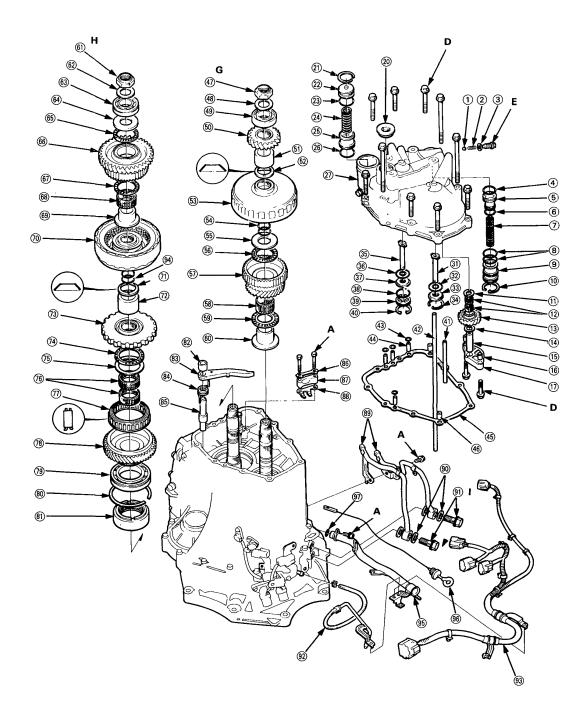
NOTE: If necessary, remove the spark plugs when rotating the crankshaft pulley.

27. Remove the transmission housing mounting bolts.



28. Pull the transmission away from the engine until it clears the dowel pin, then lower it on the transmmission jack.

### Illustrated Index Rear Cover





- STEEL BALL
- **ONE-WAY BALL SPRING**
- SEALING WASHER Replace.
- **O-RING** Replace.
- **REVERSE ACCUMULATOR PISTON**
- O-RING Replace.
- **REVERSE ACCUMULATOR SPRING**
- 03466789 **O-RINGS** Replace.
- **REVERSE ACCUMULATOR SLEEVE**
- 00 SNAP RING
- THRUST WASHER, 14 x 30 mm
- (12) (13) NEEDLE BEARINGS
- **REVERSE IDLER GEAR**
- THRUST WASHER, 14 x 25 mm REVERSE IDLER GEAR SHAFT
- (14) (15)
- ) (1) DOWEL PIN
- **REVERSE IDLER GEAR SHAFT HOLDER**
- 20 SEALING BOLT 34 x 1.25 mm
- SNAP RING
- **1ST-HOLD ACCUMULATOR SLEEVE**
- O-RING Replace.
- **1ST-HOLD ACCUMULATOR SPRING**
- **1ST-HOLD ACCUMULATOR PISTON**
- O-RING Replace.
- **REAR COVER**
- 3 **2ND CLUTCH FEED PIPE**
- <u>3</u> O-RING Replace.
- 33 FEED PIPE GUIDE
- 34 35 SNAP RING
- **REVERSE CLUTCH FEED PIPE**
- 36 37 O-RING Replace.
- FEED PIPE GUIDE
- O-RING Replace. 38
- 39 **OIL FEED GUIDE**
- (4) (4) SNAP RING
- FEED PIPE
- **4**2 FEED PIPE
- **4**3 O-RING Replace.
- (44) **OIL PIPE**
- **4**5 REAR COVER GASKET Replace.
- (46) DOWEL PIN
- (Ā7) MAINSHAFT LOCKNUT, 24 x 1.25 mm Replace.
- (48) WASHER, 24 mm Replace.

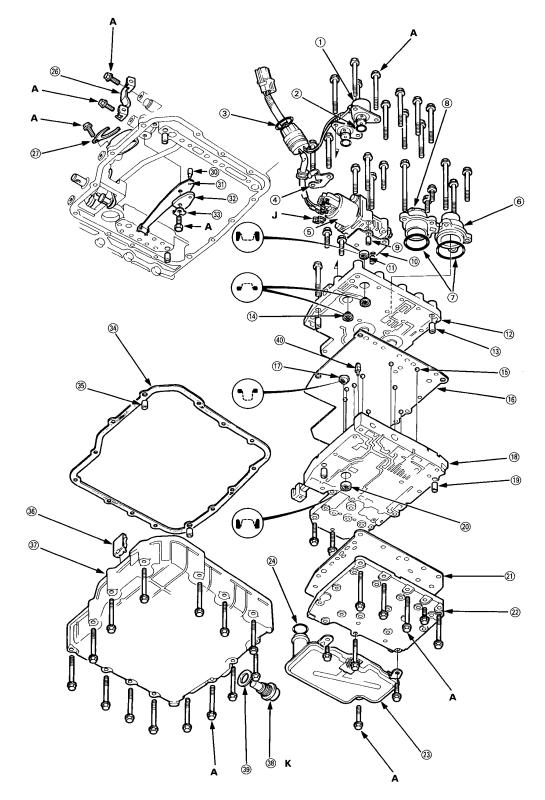
- (49) **BALL BEARING**
- <u>(50</u>) MAINSHAFT REVERSE GEAR
- 61 MAINSHAFT REVERSE GEAR DISTANCE COLLAR
- 62 MAINSHAFT DISC SPRING, 28 mm Replace.
- (53) 2ND CLUTCH ASSEMBLY
- 54 O-RING Replace.
- \$5 \$6 THRUST WASHER, 29 mm
- THRUST NEEDLE BEARING
- 57 68 MAINSHAFT 2ND GEAR
- NEEDLE BEARING
- 69 THRUST NEEDLE BEARING
- 60 MAINSHAFT 2ND GEAR COLLAR
- (ĒÎ) COUNTERSHAFT LOCKNUT, 24 x 1.25 mm Replace.
- (62) WASHER 24 mm Replace.
- 63 **BALL BEARING**
- (Ğ4) THRUST WASHER, 25 mm
- 65 THRUST NEEDLE BEARING
- 66) **COUNTERSHAFT REVERSE GEAR**
- õ THRUST NEEDLE BEARING
- 68) **NEEDLE BEARING**
- 69 **COUNTERSHAFT REVERSE GEAR COLLAR**
- **REVERSE CLUTCH ASSEMBLY**
- 10 11 **COUNTERSHAFT DISC SPRING, 29 mm** Replace.
- 12 **REVERSE CLUTCH DISTANCE COLLAR**
- PARKING GEAR
- (73) (74) THRUST NEEDLE BEARING
- 75 76 THRUST WASHER, 45.5 x 60 mm Selective part
- **NEEDLE BEARINGS**
- 2ND GEAR ONE-WAY CLUTCH
- (1) (18) **COUNTERSHAFT 2ND GEAR**
- **BALL BEARING**
- SNAP RING
- ۱ **ONE-WAY CLUTCH HUB**
- 82 PARKING BRAKE PAWL SHAFT SLEEVE
- 83 PARKING BRAKE PAWL
- 84 85 PARKING BRAKE PAWL SPRING
- PARKING BRAKE PAWL SHAFT
- (86) LOCK PLATE Replace.
- ð PARKING BRAKE ROD HOLDER
- 88 PARKING BRAKE ROD GUIDE
- 8999 **ATF COOLER PIPES**
- SEALING WASHERS Replace.
- JOINT BOLTS
- **BREATHER PIPE**
- <u>9</u>3 **TRANSMISSION SUB-HARNESS**
- <u>(</u>94) O-RING Replace.
- <u>9</u>5 ATF LEVEL GAUGE PIPE
- <u>96</u> ATF LEVEL GAUGE (DIPSTICK)
- (97) **O-RING** Replace.

#### TORQUE SPECIFICATIONS

No.	Torque Value	Bolt Size	Remarks	
Α	12 N•m (1.2 kg-m, 9 lb-ft)	6 x 1.0 mm		
D	27 N•m (2.7 kg-m, 20 lb-ft)	8 x 1.25 mm		
E	18 N•m (1.8 kg-m, 13 lb-ft)	8 x 1.25 mm	Sealing Bolt	
G	130 N•m (13.0 kg-m, 94 lb-ft)	24 x 1.25 mm	Mainshaft Locknut	
н	130 N•m (13.0 kg-m, 94 lb-ft)	24 x 1.25 mm	Countershaft Locknut (Lefthand threads)	
	40 N•m (4.0 kg-m, 29 lb-ft)	14 x 1.5 mm	Joint Bolt	

## Illustrated Index

Housing/Lower Valve Body



14-14

#### SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

The Legend Supplemental Restraint System (SRS) includes a driver's airbag, located in the steering wheel hub, a front passenger's airbag, located in the dashboard above the glove box, and seat belt pretensioners, located in the seat belt retractors.

Information necessary to safely service the SRS is included in this shop manual. Items marked with an asterisk (\*) on the contents page include, or are located near, SRS components. Servicing, disassembling or replacing these items will require special precautions and tools, and should therefore be done only by an authorized Honda or Acura dealer.

#### A WARNING

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



- SHIFT CONTROL S
   O-RING Replace.
   O-RING Replace.
   HARNESS CLAMP
   LINEAR SOLENOID/
   2ND ACCUMULATO
   O-RINGS Replace.
   1ST ACCUMULATO
   DOWEL PIN
   THROTTLE SEPARA
   FILTER Replace.
   SECONDARY VALV
   DOWEL PIN
   FILTER Replace.
   CHECK BALLS
   MAIN SEPARATOR
   FILTER Replace.
   MAIN VALVE BODY SHIFT CONTROL SOLENOID VALVE A/B

- LINEAR SOLENOID/THROTTLE VALVE BODY
- 2ND ACCUMULATOR COVER
- **1ST ACCUMULATOR COVER**
- THROTTLE SEPARATOR PLATE
- SECONDARY VALVE BODY

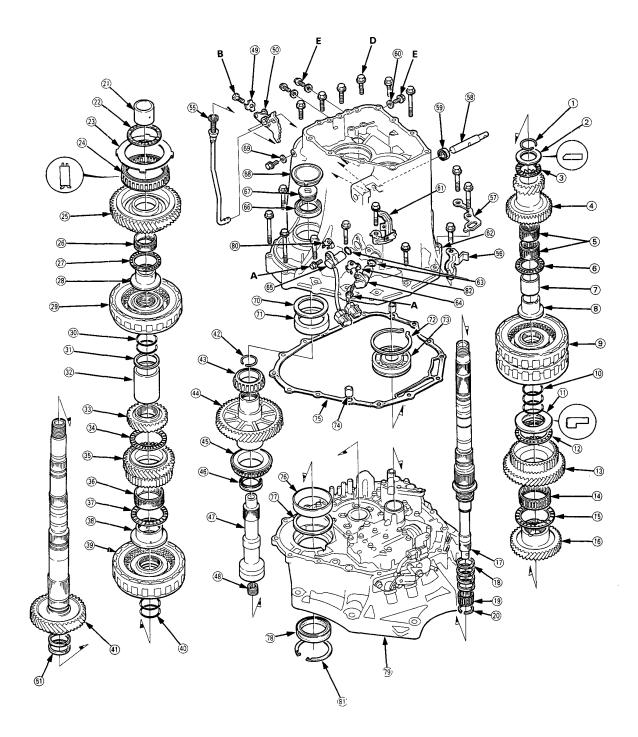
- MAIN SEPARATOR PLATE
- MAIN VALVE BODY
- **2888888888888888888**8 DOWEL PIN
- FILTER Replace.
- **OIL PASS BODY SEPARATOR PLATE**
- **OIL PASS BODY**
- ATF STRAINER
- **O-RING** Replace.
- SHIFT CABLE HOLDER BASE
- CONNECTOR STOPPER
- DETENT SPRING FIX PIN
- DETENT SPRING
- DETENT SPRING PLATE
- LOCK WASHER Replace.
- **OIL PAN GASKET Replace.**
- DOWEL PIN
- ATF MAGNET
- OIL PAN
- DRAIN PLUG
- )33 33 49 SEALING WASHER Replace.
- CHOKE

#### TORQUE SPECIFICATIONS

No.	Torque Value	Bolt Size	Remarks
J	12 N•m (1.2 kg-m, 9 lb-ft) 6 N•m (0.6 kg-m, 4 lb-ft) 50 N•m (5.0 kg-m, 36 lb-ft)	6 x 1.0 mm 5 x 0.8 mm 18 x 1.5 mm	Flange Nut Drain Plug

### **Illustrated Index**

Transmission Housing





- **SNAP RING**
- THRUST WASHER
- THRUST NEEDLE BEARING
- **MAINSHAFT 1ST GEAR**
- **NEEDLE BEARINGS**
- THRUST NEEDLE BEARING
- MAINSHAFT 1ST GEAR DISTANCE COLLAR
- MAINSHAFT 1ST GEAR COLLAR
- **1ST/4TH CLUTCH ASSEMBLY**
- O-RING Replace.
- THRUST WASHER, 43 x 74 mm Selective part
- 10346678981234 THRUST NEEDLE BEARING
- **MAINSHAFT 4TH GEAR**
- NEEDLE BEARING
- THRUST NEEDLE BEARING
- MAINSHAFT 3RD GEAR
- MAINSHAFT
- SEALING RINGS, 37 mm
- 9222325 NEEDLE BEARING
- SET RING
- **COUNTERSHAFT 2ND GEAR COLLAR**
- THRUST NEEDLE BEARING
- SET PLATE
- **1ST GEAR ONE-WAY CLUTCH**
- COUNTERSHAFT 1ST GEAR
- 8088808 **NEEDLE BEARING**
- THRUST NEEDLE BEARING
- COUNTERSHAFT 1ST GEAR COLLAR
- **1ST-HOLD CLUTCH ASSEMBLY**
- **O-RING** Replace.
- THRUST WASHER, 38.8 x 47 mm Selective part
- **1ST-HOLD CLUTCH DISTANCE COLLAR**
- ) 33 34 **COUNTERSHAFT 4TH GEAR**
- **THRUST NEEDLE BEARING**
- ) 3 3 3 3 **COUNTERSHAFT 3RD GEAR**
- **NEEDLE BEARING**
- THRUST NEEDLE BEARING
- <u>(38)</u> COUNTERSHAFT 3RD GEAR COLLAR
- (39) **3RD CLUTCH ASSEMBLY**
- (40) O-RING Replace.
- (41) COUNTERSHAFT

- (42) SET RING Replace.
- TAPERED ROLLER BEARING (43)
- SECONDARY GEAR SHAFT 44)
- TAPERED ROLLER BEARING
- (45) (46) SECONDARY GEAR SHAFT OIL SEAL Replace.
- (47) (48) **EXTENSION SHAFT**
- SECONDARY SPRING
- (49) (50) LOCK WASHER Replace.
- DETENT LEVER
- 61 SEALING RINGS, 42 mm
- 55 PARKING BRAKE ROD
- ) (5) HARNESS STAY
- TRANSMISSION HANGER
- ) 8 9 CONTROL SHAFT
- **OIL SEAL** Replace.
- SEALING WASHER Replace.
- (i) (i) SPEED SENSOR CONNECTOR STAY
- 62 TRANSMISSION HOUSING
- 63 **O-RINGS** Replace.
- 64) NM SPEED SENSOR
- 65 NC SPEED SENSOR
- 6088772345678 TRANSMISSION HOUSING OIL SEAL Replace.
- SEALING BOLT
- SECONDARY COVER
- SEALING WASHER Replace.
- THRUST WASHER, 75 mm Selective part
- **BEARING OUTER RACE**
- **SNAP RING**
- TRANSMISSION HOUSING MAINSHAFT BEARING
- DOWEL PIN
- TRANSMISSION HOUSING GASKET Replace.
- BEARING OUTER RACE
- WASHER
- TORQUE CONVERTER HOUSING OIL SEAL Replace.
- (79) TORQUE CONVERTER HOUSING
- **(80)** NC SPEED SENSOR WASHER NOTE: KY, KQ, KT models
- (81) SNAP RING
- (<u>8</u>2) NM SPEED SENSOR WASHER
  - NOTE: KE, KU, KG, KF, KS, KX models

#### TORQUE SPECIFICATIONS

No.	Torque Value	Bolt Size	Remarks
A	12 N•m (1.2 kg-m, 9 lb-ft)	6 x 1.0 mm	
В	14 N·m (1.4 kg-m, 10 lb-ft)	6 x 1.0 mm	Special Bolt
D	34 N·m (3.4 kg-m, 26 lb-ft)	8 x 1.25 mm	
E	18 N•m (1.8 kg-m, 13 lb-ft)	8 x 1.25 mm	Oil Pressure Check Bolt

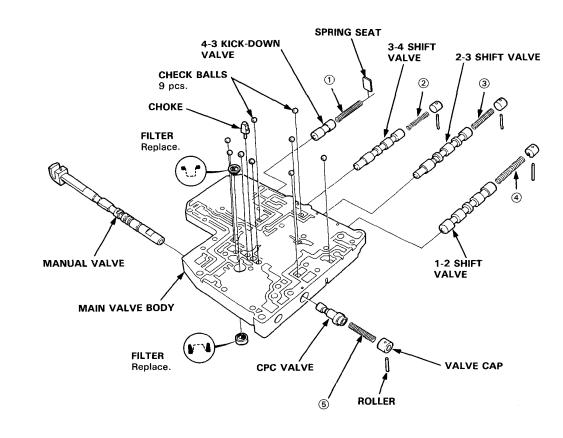
# Main Valve Body

#### - Disassembly/Inspection/Reassembly

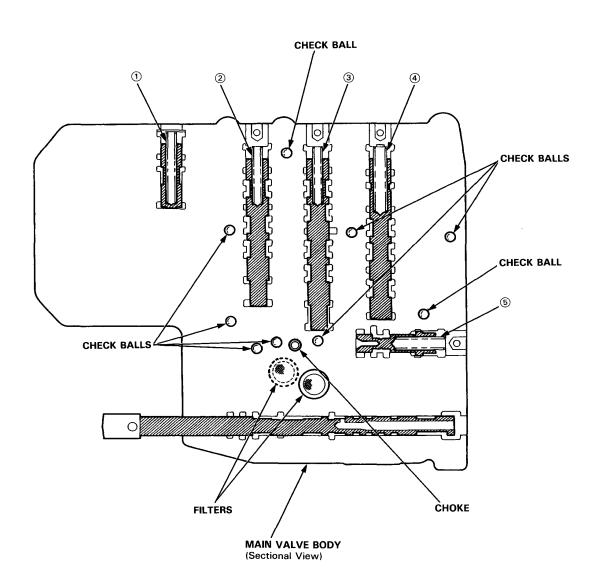
NOTE:

- Clean all parts thoroughly in solvent or carburetor cleaner, and dry with compressed air.
- Blow out all passages.
- Replace valve body as an assembly if any parts are worn or damaged.
- Check all valves for free movement. If any fail to slide freely, see Valve Body Repair on page.
- Coat all parts with ATF before reassembly.

CAUTION: Do not use a magnet to remove the check balls; it may magnetize the balls.







#### SRING SPECIFICATIONS

Unit: mm (in)

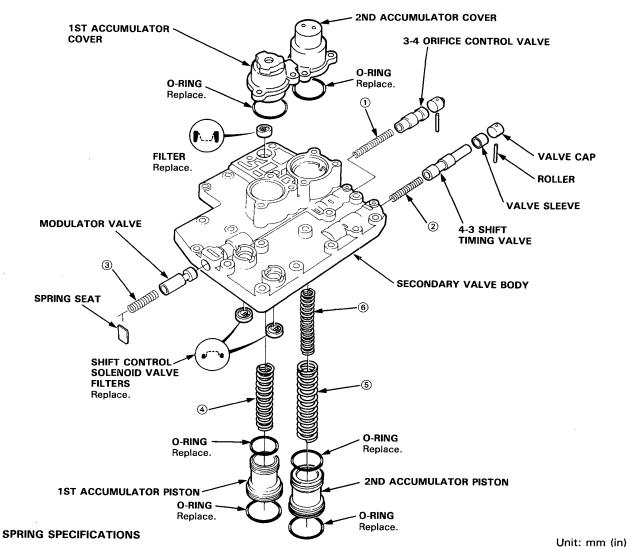
No.	Spring	Standard (New)			
NO.		Wire Dia.	0.D.	Free Length	No. of Coils
1	4-3 kick-down valve spring	1.1 (0.043)	7.1 (0.280)	51.3 (2.020)	22.5
2	3-4 shift valve spring	0.8 (0.031)	6.6 (0.260)	42.1 (1.657)	22.0
<u>3</u>	2-3 shift valve spring	0.8 (0.031)	6.6 (0.260)	42.1 (1.657)	22.0
ĕ	1-2 shift valve spring	0.9 (0.035)	7.6 (0.299)	55.5 (2.185)	24.0
5	CPC valve spring	1.0 (0.039)	6.8 (0.268)	34.3 (1.350)	14.2

# Secondary Valve Body

### Disassembly/Inspection/Reassembly

#### NOTE:

- Clean all parts thoroughly in solvent or carburetor cleaner, and dry with compressed air.
- Blow out all passages.
- Check all valves for free movement. If any fail to slide freely, see Valve Body Repair on page.
- Coat all parts with ATF before reassembly.



No.	Spring	Standard (New)			
<b>VO</b> .		Wire Dia.	0.D.	Free Length	No. of Coils
1	3-4 orifice control valve spring	1.0 (0.039)	6.6 (0.260)	49.6 (1.953)	26.8
2	4-3 shift timing valve spring	0.7 (0.028)	7.1 (0.280)	35.0 (1.378)	20.4
3	Modulator valve spring A	1.5 (0.059)	9.4 (0.370)	30.6 (1.205)	9.9
	Modulator valve spring A, B	1.4 (0.055)	9.4 (0.370)	33.0 (1.299)	10.5
4	1st accumulator spring	2.9 (0.114)	18.0 (0.709)	75.5 (2.972)	11.5
5	2nd accumulator spring A	3.6 (0.142)	22.0 (0.866)	96.7 (3.807)	13.0
6	2nd accumulator spring B	2.0 (0.079)	6.6 (0.260)*	80.0 (3.150)	19.6
			*: Inside Diameter		

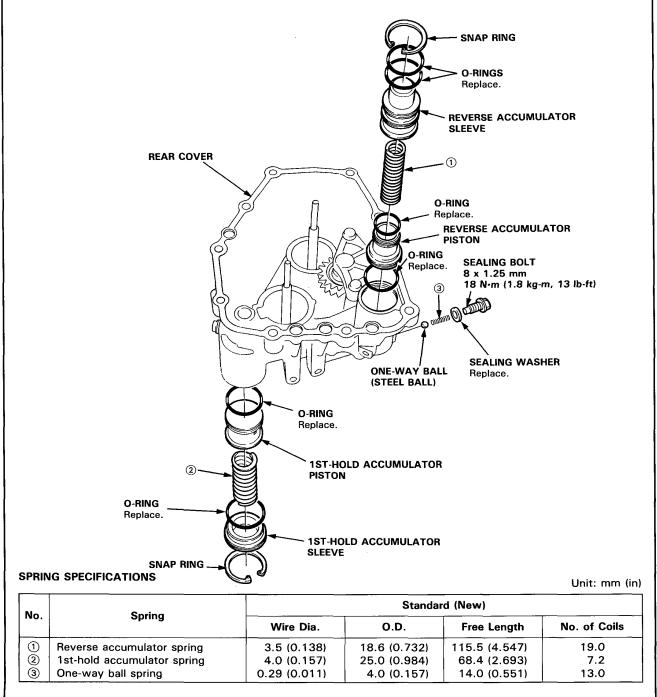
### **Reverse Accumulator/1st-hold Accumulator**



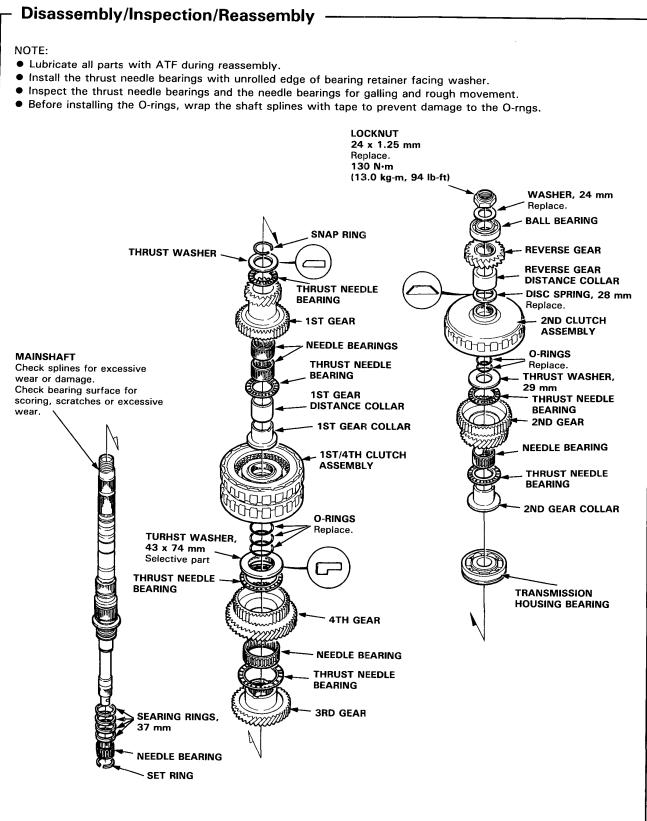
### Disassembly/Inspection/Reassembly -

#### NOTE:

- Clean all parts thotoughly in solvent or carburetor cleaner, and dry with compressed air.
- Blow out all passages.
- Replace the O-rings.
- Check all pistons for free movement. If any fail to slide freely, see Valve Body Repair on page.
- Coat all parts with ATF before reassembly.



# Mainshaft

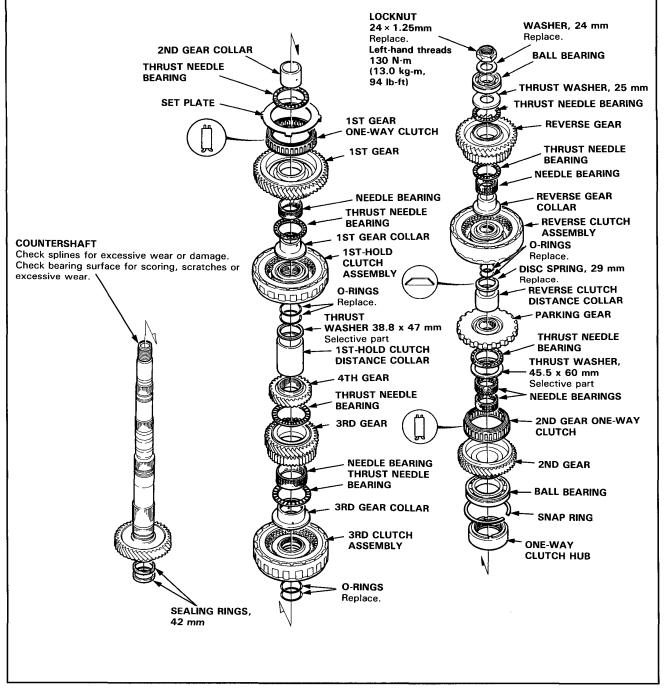


## Countershaft

### Disassembly/Inspection/Reassembly

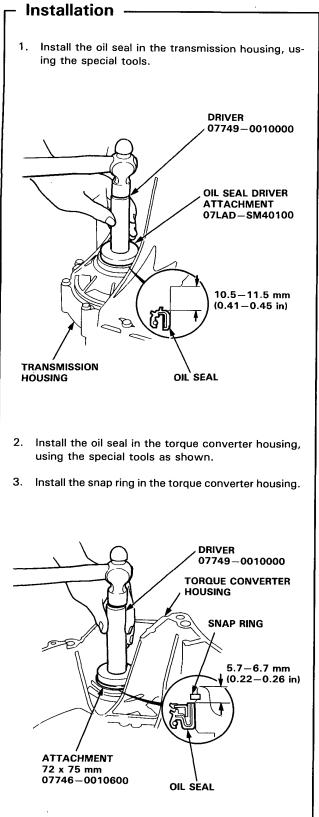
#### NOTE:

- Lubricate all parts with ATF during reassembly.
- Install the thrust needle bearings with unrolled edge of bearing retainer facing washer.
- Inspect the thrust needle bearings and the needle bearings for galling and rough movement.
- Before installing the O-rings, wrap the shaft splines with tape to prevent damage to the O-rings.
- Locknut has left-hand threads.





# Oil Seal



# Transmission



### Installation

- 1. Install the torque converter with a new O-ring and two 14 x 20 mm dowel pins in the torque converter housing.
- 2. Set the extension shaft, and apply HONDA GENUINE GREASE UM264 (P/N 41211-PY5-305) to the extension shaft splines.
- 3. Install the secondary spring in the differential side of the extension shaft.
- 4. Place the transmission on a transmission jack, and raise to the engine level.
  - 14 x 20 mm

     15 x 20 mm

     15 x 20 mm

     16 x 20 mm

     17 x 20 mm

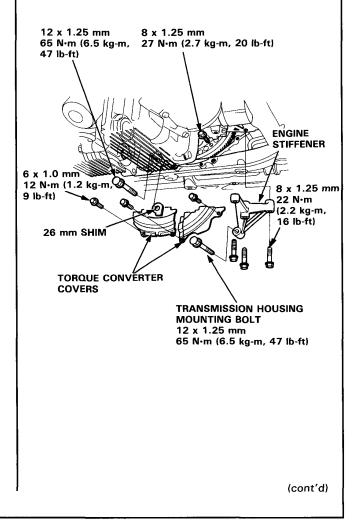
     18 x 20 mm

     19 x 20 mm

     10 x 20 mm

- 5. Install the transmission housing mounting bolt and 26 mm shim.
- Attach the torque converter covers to the drive plate with six bolts and torque to 27 N·m (2.7 kg-m, 20 lb-ft). Rotate the crankshaft as necessary to tighten the bolts 1/2 of specified torque, then final torque, in a crisscross pattern. After tightening the last bolt, check that the crankshaft rotates freely.
- 7. Install the torque converter covers.
- 8. Install the engine stiffener.

NOTE: Loosely install the engine stiffener 8 mm mounting botls, then torque to specified torque after installing the transmission housing mounting 12 mm bolt on th engine stiffener.

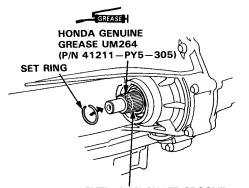


### Transmission

#### Installation (cont'd) 9. Install the three transmission housing mounting 12. Loosely install the transmission beam to the rear bolts. transmission mount bracket/mount with three bolts, then install them with the exhaust pipe stay on the 10. Install the mid mounts and tighten the six bracket transmission rear cover and body. bolts. REAR TRANSMISSION MOUNT REAR TRANSMISSION BRACKET BOLTS **MOUNT BRACKET/** 10 x 1.25 mm MOUNT 39 N·m (3.9 kg-m, 28 lb-ft) 8 x 1.25 mm 22 N·m (2.2 kg-m, 16 lb-ft) TRANSMISSION HOUSING MOUNTING BOLT 12 x 1.25 mm 65 N·m (6.5 kg-m, 47 lb-ft) TRANSMISSION BEAM SHIFT CABLE TRANSMISSION GUIDE **BEAM BOLTS** EXHAUST PIPE 10 x 1.25 mm TRANSMISSION STAY Loosely install. BEAM BOLTS 10 x 1.25 mm 13. Tighten four transmission beam bolts. 14. Tighten three rear transmission mount bracket bolts. TRANSMISSION 15. Tighten three transmission beam bolts installed MID MOUNT NUT MID 10 x 1.25 mm loosely in step 12. MOUNT 49 N·m (4.9 kg-m, MID MOUNT 35 lb-ft) TRANSMISSION BEAM BRACKET BOLTS BOLTS 10 x 1.25 mm 10 x 1.25 mm 39 N·m (3.9 kg-m, 39 N·m (3.9 kg-m, 28 lb-ft) 28 lb-ft) 11. Remove the transmissin jack from the transmission. TRANSMISSION BEAM BOLTS TRANSMISSION REAR TRANSMISSION 10 x 1.25 mm **BEAM BOLTS** MOUNT BRACKET BOLTS 39 N·m 10 x 1.25 mm 10 x 1.25 mm (3.9 kg-m, 39 N·m (3.9 kg-m, 39 N•m 28 lb-ft) 28 lb-ft) (3.9 kg-m, 28 lb-ft) 16. Install the shift cable guide on the transmission beam with the bolt.



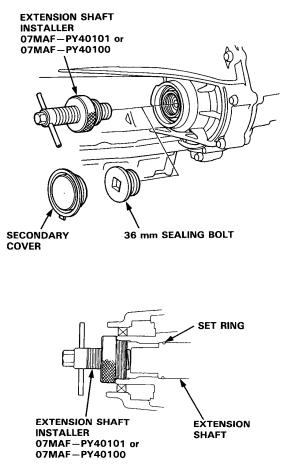
17. Install a new set ring in the extension shaft groove.



EXTENSION SHAFT GROOVE

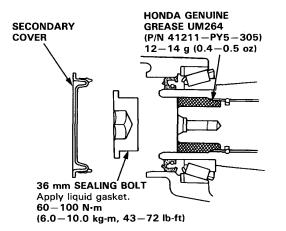
18. Install the extension shaft using the special tool as shown.

NOTE: Make sure that the secondary spring is installed, and the extension shaft locks securely in the secondary gear shaft.



- Fill the opening between the secondary gear shaft and extension shaft with HONDA GENUINE GREASE UM264 (P/N 41211-PY5-305), as shown.
- 20. Apply liquid gasket (P/N 0Y740-99986) to the 36 mm sealing bolt threads.
- 21. Install the 36 mm sealing bolt and secondary cover on the transmission housing.

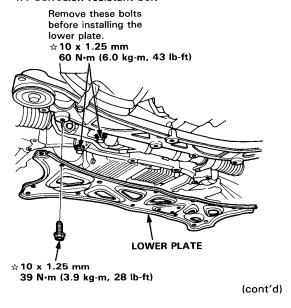
NOTE: Shift to P position rotating the control shaft.



22. Remove the steering gearbox mounting bolts, then install the lower plate.

NOTE: LHD is shown. The location of the steering gearbox mounting bolts on the RHD are symmetrical.

☆: Corrosion resistant bolt



## Transmission

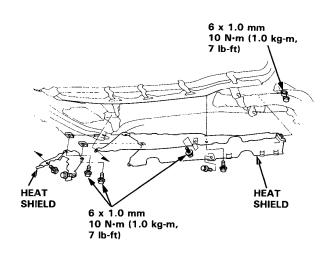
### Installation (cont'd)

 Install the control lever to the control shaft with a new lock plate. Bend the lock plate after installing the bolt.

CAUTION: Take care not to bend the cable when removing/installing it.

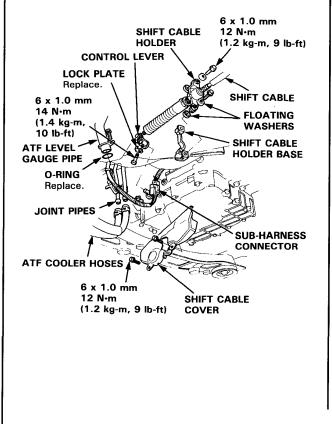
- 24. Install the shift cable holder on the shift cable holder base.
- 25. Install the shift cable cover.
- 26. Connect the ATF cooler hoses to joint pipes.
- 27. Connect the shift control solenoid valve/linear solenoid connector to the transmission sub-harness connector. Then install the connector on the shift cable cover.
- 28. Install the ATF level gauge pipe in the torque converter housing with a new O-ring.

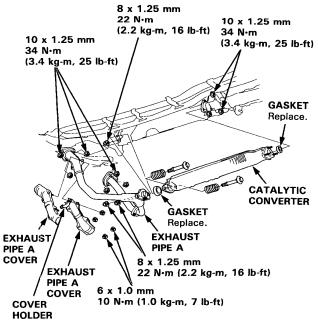
29. Install the heat shields.



30. Install the exhaust pipe A, exhaust pipe A cover and catalytic converter with new self-locking nuts.

NOTE: Nuts in figure below are all self-locking; replace them when installing.







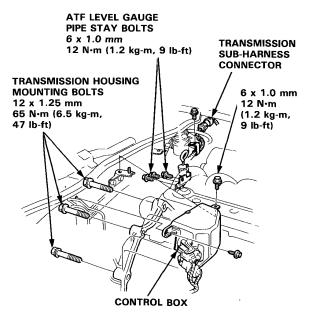
31. Install the transmission housing mounting bolts.

32. Install the ATF level gauge pipe stay bolt(s).

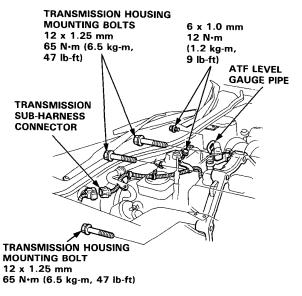
33. Connect the transmission sub-harness connector.

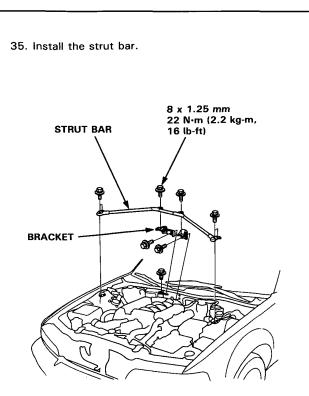
34. Install the control box (LHD only).

LHD:



RHD:





- 36. Refill the transmission with ATF.
- 37. Connect the battery positive (+) and negative (-) cables to the battery.
- 38. Start the engine. Set the parking brake, and shift the transmission through all gears three times. Check for proper shift cable adjustment.
- 39. Let the engine reach normal operating temperature (the radiator fan comes on) with the transmission in  $\boxed{N}$  or  $\boxed{P}$  position, then turn it off and check fluid level.
- 40. Road test as described on pages 14-5 thru 7.

# Shift Cable

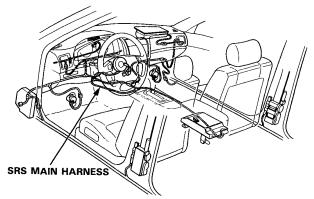
### - Removal/Installation

SRS wire harness is routed near the gearshift selector.

#### CAUTION:

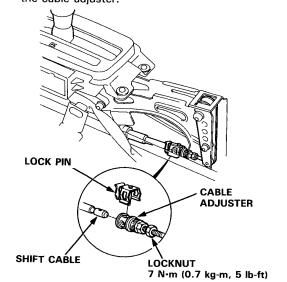
- All SRS electrical wiring harnesses are covered with yellow outer insulation.
- Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.

NOTE: LHD is shown; RHD is symmetrical.



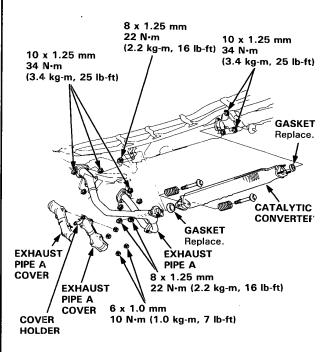
#### A WARNING

- Make sure lifts, jacks and safety stands are placed properly (see section 1).
- Apply parking brake and block rear wheels, so the car will not roll off stands and fall while you are working under it.
- 1. Remove the center console.
- 2. Shift to  $[\underline{\mathsf{R}}]$  position, then remove the lock pin from the cable adjuster.

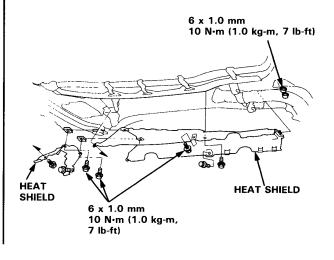


- 3. Remove the catalytic converter.
- 4. Remove the exhaust pipe A cover then remove the exhaust pipe A.

NOTE: Nuts in figure below are all self-locking; replace them when installing.



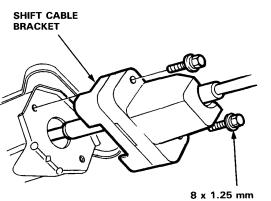
5. Remove the heat shields.





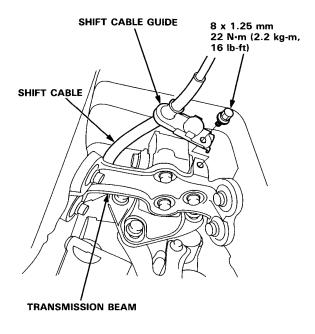
6. Remove the shift cable bracket.

CAUTION: Take care not to bend the cable when removing/installing it.

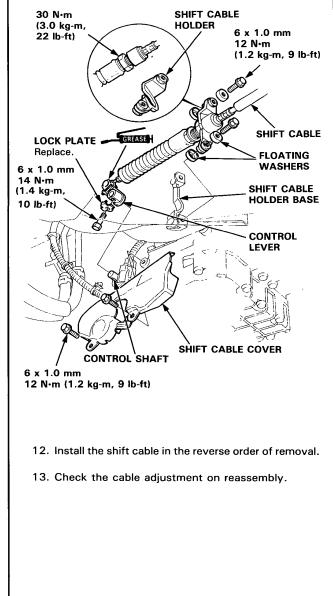


22 N·m (2.2 kg-m, 16 lb-ft)

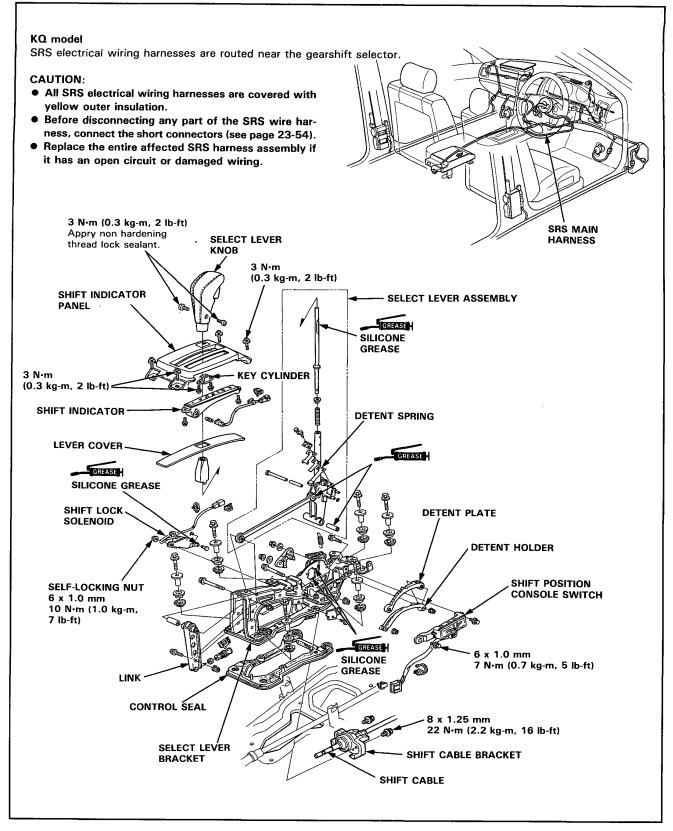
7. Remove the shift cable guide from the transmission beam.



- 8. Remove the shift cable cover.
- 9. Remove the shift cable holder from the shift cable holder base and from the shift cable.
- 10. Remove the control lever from the control shaft.
- 11. Remove the shift cable.



# **Gearshift selector**



### **Suspension**

Wheel Alignment	
Camber/Caster gauge Installation (For 16 inch aluminum wheel models)	18-2
Turning Angle (For KE, KG, KX, KF, KS models)	18-2
Front Suspension	
Front Spindle Nut Installation	18-3



#### Outline of Model Change -----

- The camber/caster gauge installation procedures have been changed, on the 16 inch aluminum wheel models.
- Turning angle specifications have been changed, for the KE, KG, KX, KF, KS models.
- The front spindle nut installation procedures have been changed.

# Wheel Alignment

WHEEL

WHEEL CENTER CAP

<Rear:>

WHEEL CENTER CAP

EQUIVALENT COMMERCIALLY AVAILABLE

07MGK--0010100

CAMBER/CASTER GAUGE

WHEEL NUT

CAMBER/CASTER GAUGE

EQUIVALENT COMMERCIALLY AVAILABLE

WHEEL ALIGNMENT GAUGE ATTACHMENT

### Camber/Caster Gauge Installation ¬ (For 16 inch aluminum wheel models) 1. Remove the wheel. 2. Remove the wheel center cap. 3. On the rear wheel, remove the hub cap. Insert the special tool into the wheel from inside of 4. the wheel. 5. Hold the special tool, and install the wheel with the wheel nuts. 6. Tighten the wheel nuts securely. 7. Install a camber/caster gauge on the special tool correctly. <Front:> WHEEL ALIGNMENT GAUGE ATTACHMENT 07MGK-0010100 WHEEL NUT

Turning Angle – (For KĔ, KG, KX, KF, KS models) Turning angle: Inward wheel: 40° ± 2° (Outward wheel: 33°)

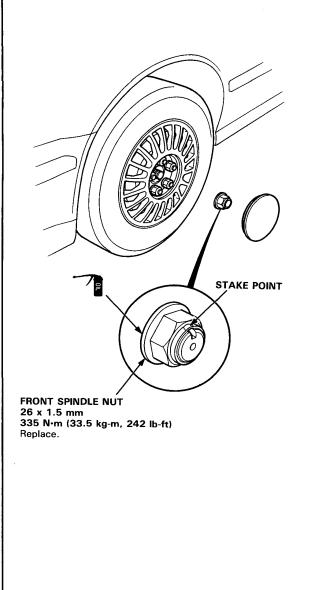
HUB CAP

WHEEL-



# Front Suspension

- 1. Apply engine oil to the seating surface of the new front spindle nut, then install the spindle nut.
- 2. Tighten the spindle nut to specified torque, then stake the spindle nut shoulder against the spindle.



### Anti-lock Brake System (ABS)

Change in the ABS Control Unit	
(Control System)	19-2

NOTE: The name of ALB was changed to ABS. When you refer to the LEGEND Shop Manual (No. 62SP000) for the changes in the ABS control unit (control system), read by substituting a word of ALB to ABS.



Outline of Model Changes -

As the control system of the ABS control unit was partially revised, the changes were described in this section.

# Anti-lock Brake System (ABS)

### Change in the ABS Control Unit (Control System) -

1. ABS Pump Motor Operation Conditions

Before change	After change
The ABS control unit activates the ABS pump mo- tor when it detects the pressure switch OFF signal.	The ABS control unit activates the ABS pump mo- tor when it detects the pressure switch OFF signal and the vehicle speed being 6 mph (10 km/h) or above.

NOTE: The ABS pump motor can operate for a short time at the initial diagnosis right after the engine start. Note there is no change in the conditions of this ABS pump motor operation.

#### 2. ABS Pump Motor Over-run Warning Conditions

Before change	After change
<ul> <li>5 seconds or more (When the pressure switch is ON at the initial di- agnosis.)</li> </ul>	20 seconds or more (No conditions)
<ul> <li>20 seconds or more (When the pressure switch is OFF at the initial di- agnosis and the over-run warning was activated during the previous self diagnosis.)</li> </ul>	
<ul> <li>15 seconds or more (When the ABS is not activated at the regular di- agnosis.)</li> </ul>	

3. ABS Control Unit Reset Condition after Warning of the Accumulator Gas Leak (Problem Code 1-8)

Before change	After change
<ul> <li>The ABS control unit holds the ABS indicator light ON at the restart of the engine when the problem code 1-8 is memorized in the ABS con- trol unit. (Problem code holding function)</li> </ul>	The ABS has no holding function of the problem code 1-8. Therefore, when the problem code 1-8 is memorized in the ABS control unit, it does not pre- vent the ABS indicator light from going OFF at the restart of the engine.
<ul> <li>To reset the holding function, disconnect the bat- tery terminal or the ABS B2 (15A) fuse for more than 3 seconds.</li> </ul>	

### Body

*Dashboard	
Replacement	20-21
*Front Seat Belt	
Replacement	20-18
Inspection	20-20
Front Seat Linkage	
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Recline Adjuster, Slide/Elevation	
Adjuster Replacement	20-4
Recline Motor Replacement	20-7
Slide Motor, Slide Gearbox	
Replacement	20-8
Front and Rear Elevation Motors	
Replacement	
Slide Joint Cable Replacement	20-15
Recline Memory Switch	
Replacement	
Rear Power Seat (KY, KQ, KT models)	
Replacement	
Slide Adjuster Disassembly	
Special Tools	20-2

\*: Read SRS precautions on section 1, then install short connectors on the airbags and seat belt pretensioner before working in these areas.

#### SUPPLEMENTAL RESTRAINT SYSTEM (SRS) (if body maintenance is required)

The Legend Supplemental Restraint System (SRS) includes a driver's airbag, located in the steering wheel hub, a front passenger's airbag, located in the dashboard above the glove box, and seat belt pretensioners, located in the seat belt retractors.

Information necessary to safely service the SRS is included in this shop manual. Items marked with an asterisk (\*) on the contents page include, or are located near, SRS components. Servicing, disassembling or replacing these items will require special precautions and tools, and should therefore be done only by an authorized Honda or Acura dealer.

#### 

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

#### Outline of Model Changes

- The front passenger's airbag and seat belt pretensioners have been added.
- · The dashboard replacement procedure has been changed.
- The front seat belt replacement/inspection procedures have been changed.
- The front seat linkage replacement procedure has been changed.
- The rear power seat with slide adjuster has been added (KY, KQ, KT models).



# **Special Tools**

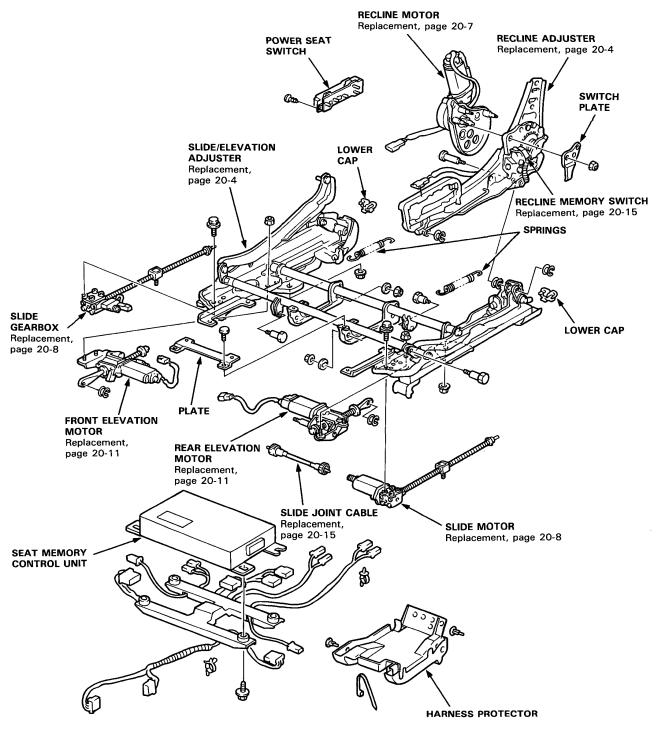
Ref. No.	Tool Number	Description	Qty	Page Reference
1	07MAZ-SP00200	SRS Short Connector	2	20-21, 22
		$\sim D$		
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		0		



# Front Seat Linkage

#### Index

Fully power adjustable (with memory):

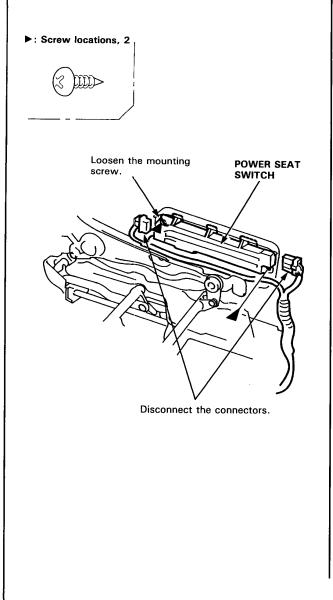


# Front Seat Linkage Recline Adjuster, Slide/Elevation Adjuster Replacement

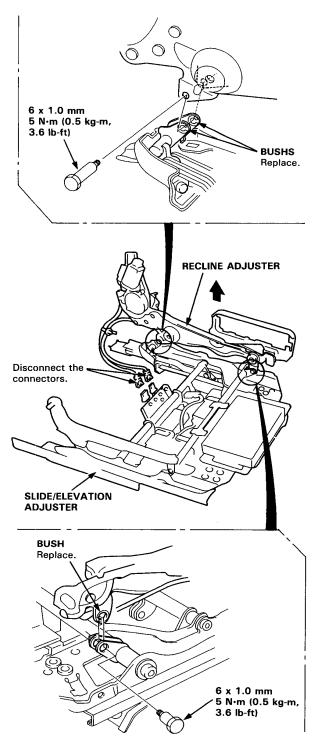
CAUTION: Wear gloves to remove and install the recline adjuster and slide/elevation adjuster.

NOTE:

- Take care not to scratch the seat covers.
- To separate the recline adjuster and slide/elevation adjuster, elevate the seat cushion at the front and rear.
- Remove the front seat.
- Remove the seat cushion and seat-back.
- 1. Remove the power seat switch.

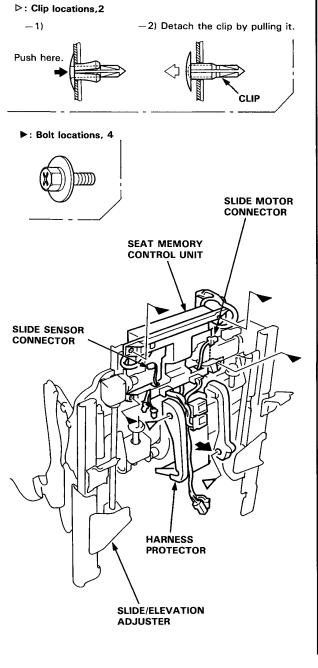


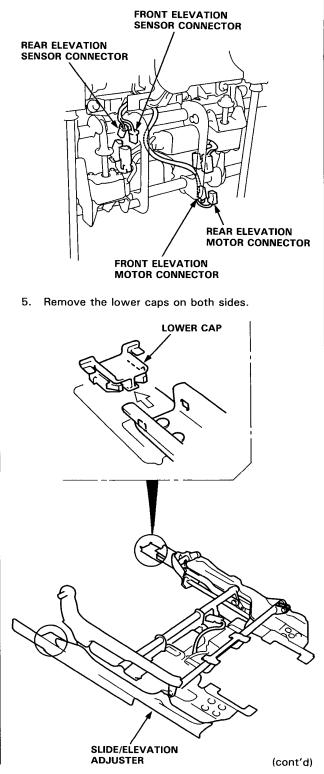
2. Separate the recline adjuster and slide/elevation adjuster.





- 3. Remove the slide joint cable (see page 20-15).
- Remove the seat memory control unit and harness protector from the slide/elevation adjuster. Disconnect the connectors.





# Front Seat Linkage

### Recline Adjuster, Slide/Elevation Adjuster Replacement (cont'd)

6. Installation is the reverse of the removal procedure.

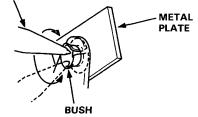
#### NOTE:

- Replace the bushs with new ones as follows
  - -1) install the bush.

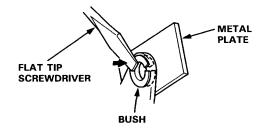


 - 2) Hold the bush down against a metal plate, then flare the edge of the bush using a center punch as shown.

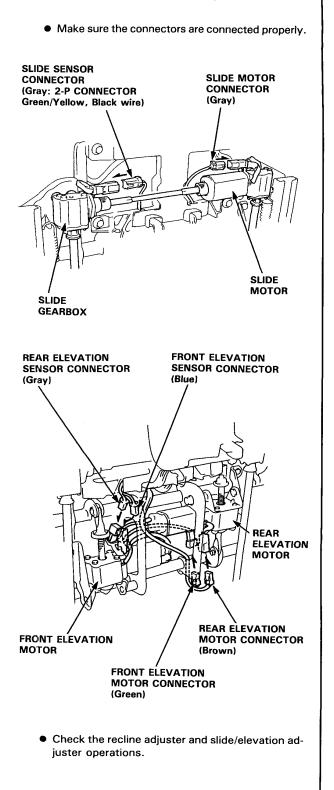




-3) Flatten the bush using a flat tip screwdriver as shown.



• Make sure the slide joint cable is connected securely (see page 20-15).



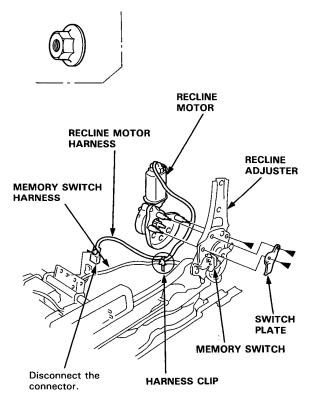


### **Recline Motor Replacement**

CAUTION: Wear gloves to remove and install the recline motor.

NOTE:

- Take care not to scratch the seat cover.
- Remove the front seat.
- Remove the seat cushion and seat-back.
- 1. Remove the switch plate and recline motor from the recline adjuster.
- ▶: Nut locations, 3

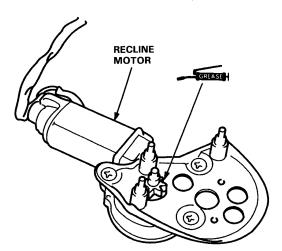


NOTE: When removing the switch plate, take care not to damage the memory switch.

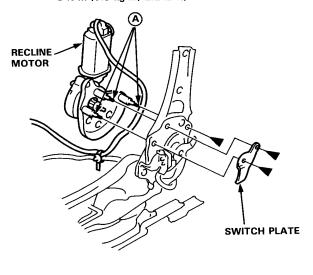
2. Installation is the reverse of the removal procedure.

#### NOTE:

• Before installing the recline motor, apply greace (molybdenum grease) to the gear portion.



- After installing the recline motor, apply liquid thread lock to Alocations, then tighten the nuts.
- ►: Nut locations, 3
   5 x 0.8 mm
   3 N•m (0.3 kg-m, 2.2 lb-ft)



- Make sure the connector is connected properly.
- Check the recline adjuster operation.

### Front Seat Linkage Slide Motor, Slide Gearbox Replacement

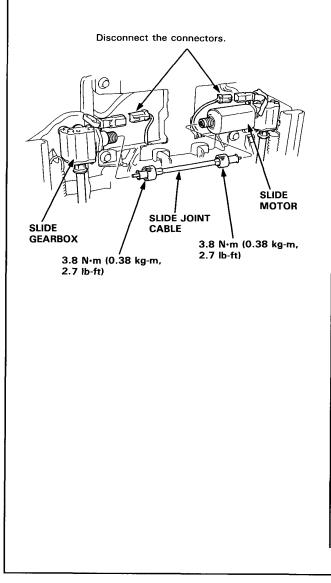
CAUTION: Wear gloves to remove and install the slide motor and slide gearbox.

NOTE:

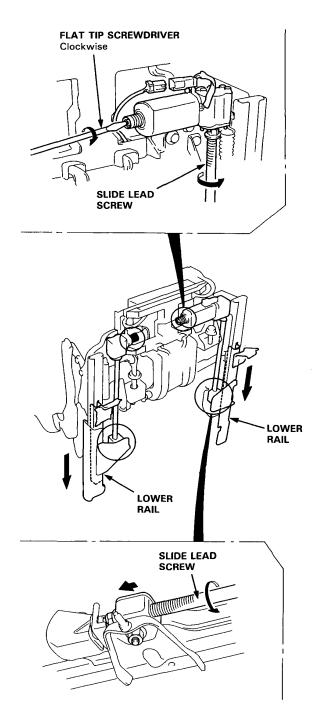
- Take care not to scratch the seat covers.
- To remove the slide motor and slide gearbox, slide the front seat forward fully.
- Remove the front seat.
- Remove the seat cushion.
- 1. Remove the slide joint cable.

#### NOTE:

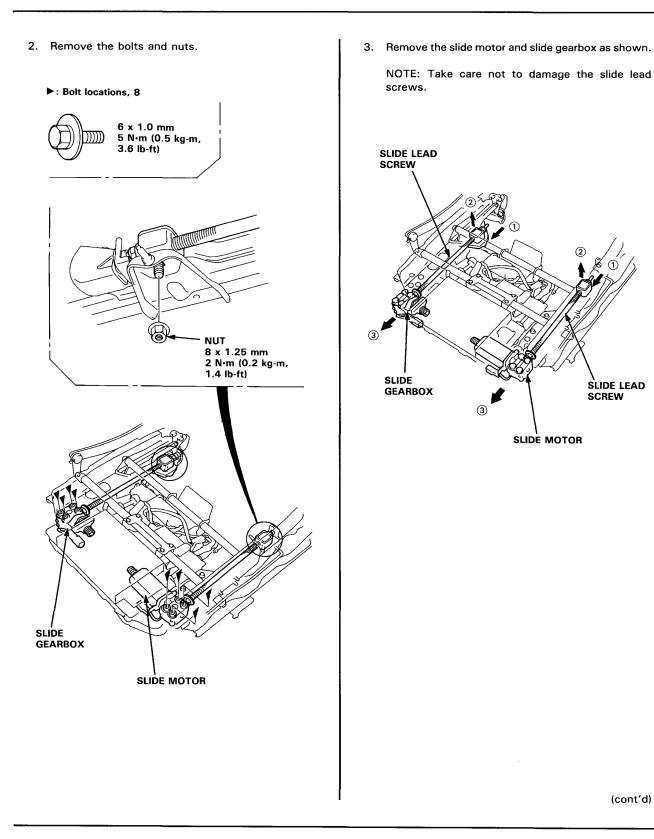
• Take care not to bend the slide joint cable.



• If necessary, slide the lower rails on both side backward fully as follows.





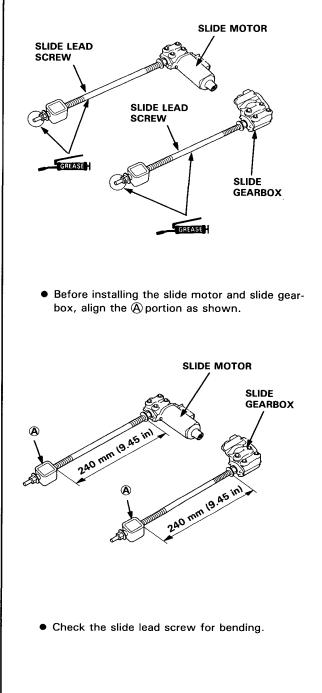


### Front Seat Linkage Slide Motor, Slide Gearbox Replacement (cont'd)

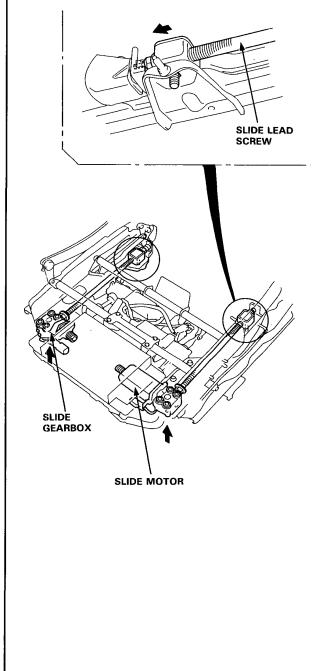
4. Installation is the reverse of the removal procedure.

#### NOTE:

• Before installing the slide motor and slide gearbox, apply grease to the slide lead screws as shown.

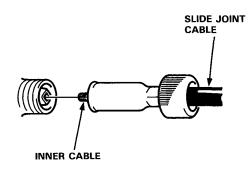


• When installing the slide motor and slide gearbox, make sure the end of the slide lead screw is set properly.

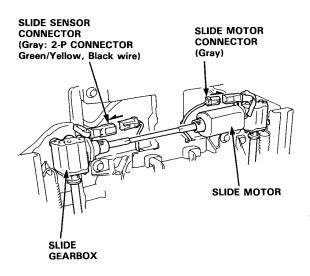




• When installing the slide joint cable, set the inner cable securely.



• Make sure the connectors are connected properly.



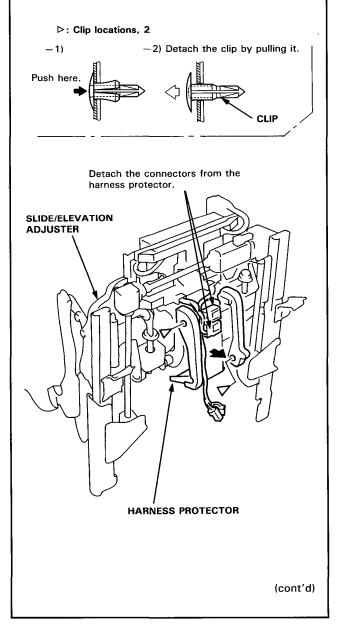
• Check the slide motor and slide gearbox operations.

#### Front and Rear Elevation Motors Replacement

CAUTION: Wear gloves to remove and install the front and rear elevation motors.

NOTE:

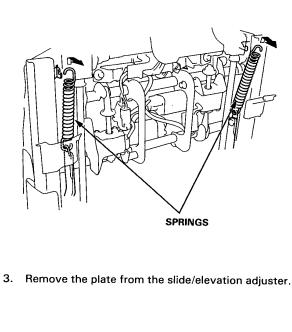
- Take care not to scratch the seat covers.
- To remove the rear elevation motor, elevate the seat cushion at the rear.
- Remove the front seat.
- Remove the seat cushion.
- 1. Remove the harness protector from the slide/elevation adjuster.



# Front Seat Linkage

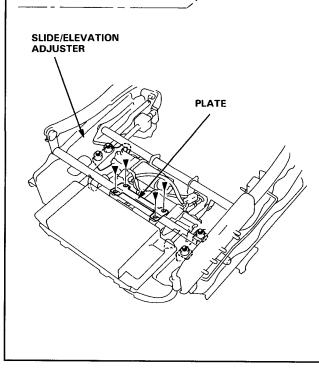
### – Front and Rear Elevation Motors Replacement (cont'd) -

2. Remove the springs.

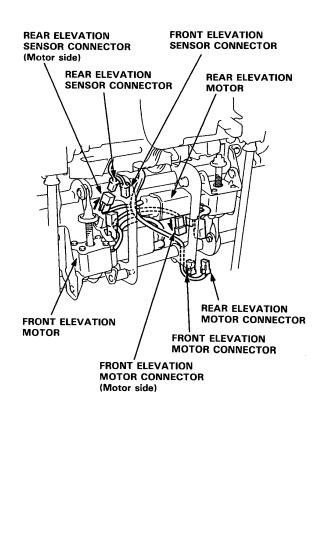


▶: Bolt locations, 4

5 x 0.8 mm )) 3 N⋅m (0.3 kg-m, 2.2 lb-ft)

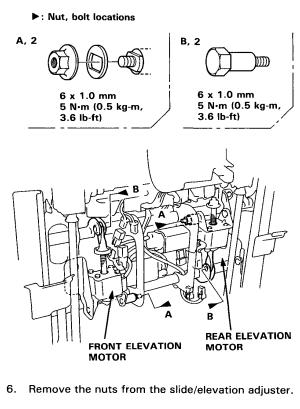


4. Disconnect the connectors, then detach the rear elevation sensor connector and front elevation motor connector on the motor side as shown.

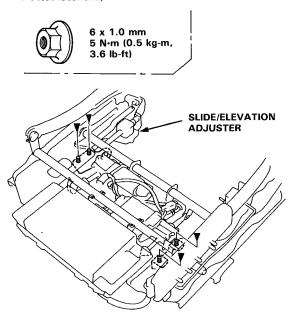




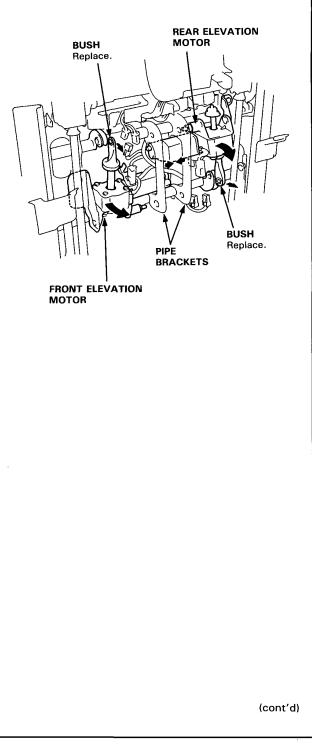
#### 5. Remove the nuts and bolts.



►: Nut locations, 4



7. Slide the pipe brackets inward, then remove the front and rear elevation motors as shown.

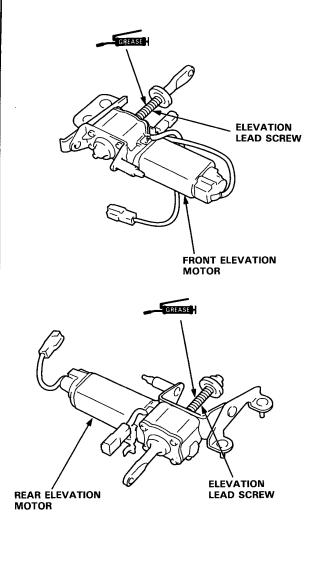


# Front Seat Linkage Front and Rear Elevation Motors Replacement (cont'd) –

8. Installation is the reverse of the removal procedure.

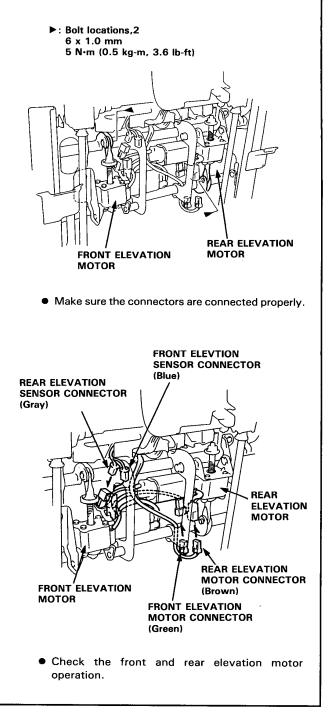
#### NOTE:

 Before installing the front and rear elevation motors, apply grease to the elevation lead screws.



• Check the elevation lead screw for bend.

- Replace the bushs (see page 20-13) with new ones as described on page 20-6.
- After installing the front and rear elevation motors, apply liquid thread lock to the bolts, then tighten them.





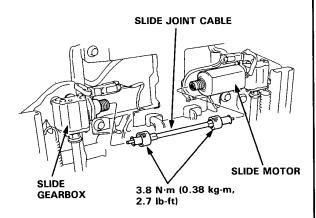
## Slide Joint Cable Replacement

CAUTION: Wear gloves to remove and install the slide joint cable.

NOTE:

- Take care not to scratch the seat covers.
- Remove the front seat.
- 1. Remove the slide joint cable.

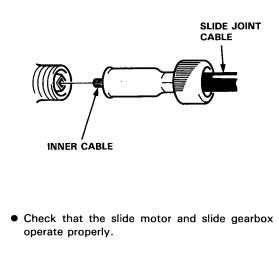
NOTE: Take care not to bend the slide joint cable.



2. Installation is the reverse of the removal procedure.

#### NOTE:

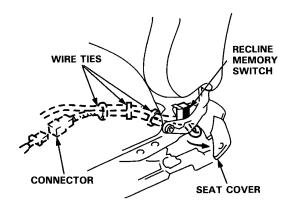
• When installing the slide joint cable, set the inner cable securely.



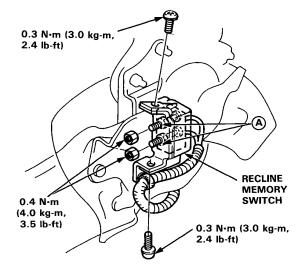
## Recline Memory Switch Replacement

CAUTION: Wear gloves to remove and install the front seat.

- NOTE: Take care not to scratch the seat covers.
- 1. Remove the front seat.
- 2. Remove the cushion front cover, recline cover and height cover.
- 3. Disconnect the connector and detach the wire ties.



- 4. Pull back the seat cover.
- 5. Remove the recline memory switch.

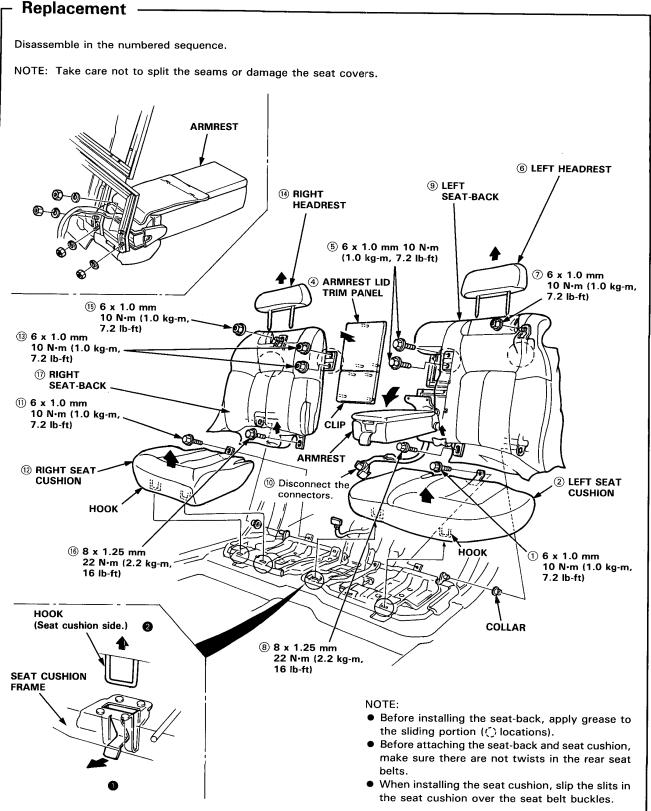


6. Installation is the reverse of the removal procedure.

#### NOTE:

- After installing the recline memory switch, apply liquid thread lock to Alocations, then tighten the nuts.
- Make sure the connector is connected properly.
- Check the recline memory switch operation.

# Rear Power Seat (KY, KQ, KT models)





# **Slide Adjuster Disassembly** NOTE: • Before installing the slide motors and seat tracks, apply grease to the sliding and gear portion. • Make sure the connector is connected properly. • Check the slide motors operations. **RIGHT SEAT CUSHION FRAME** LEFT SEAT **CUSHION FRAME** 8 x 1.25 mm 22 N·m (2.2 kg-m, 16 lb-ft) **RIGHT OUTER** SEAT TRACK **RIGHT INNER** SEAT TRACK 8 õ 0 8 x 1.25 mm 22 N·m (2.2 kg-m, 16 lb-ft) **RIGHT SLIDE** MOTOR LÈFT OUTER SEAT TRACK LEFT INNER SEAT TRACK 8 x 1.25 mm LEFT SLIDE 2 N·m (0.2 kg-m, MOTOR 1.4 lb-ft)

# Front Seat Belt

## - Replacement -

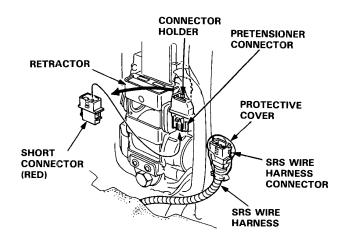
SRS wire harnesses are routed near the retractor.

**A WARNING** All SRS wire harnesses and connectors are colored yellow. Do not use electrical test equipment on these circuits.

CAUTION:

- Be careful not to damage the SRS wire harnesses when servicing the retractor.
- Remove the short connector (RED) from the connector holder and disconnect the SRS wire harness connector, then connect the short connector (RED) to the pretensioner connector.

NOTE: To prevent contamination, wrap the SRS wire harness connector with a protective cover.

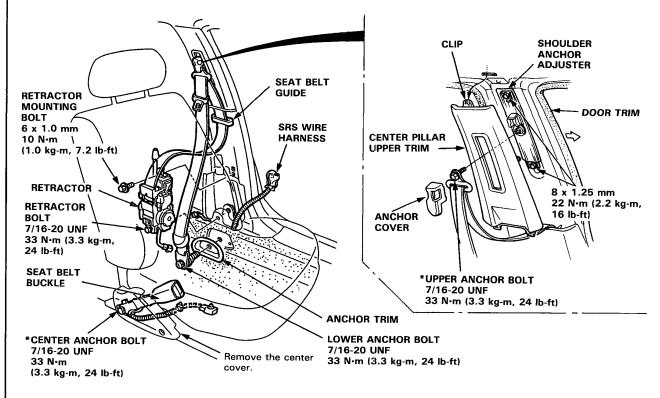


CAUTION: Check the seat belts for damage and replace them if necessary. Be careful not to damage them during removal and installation.

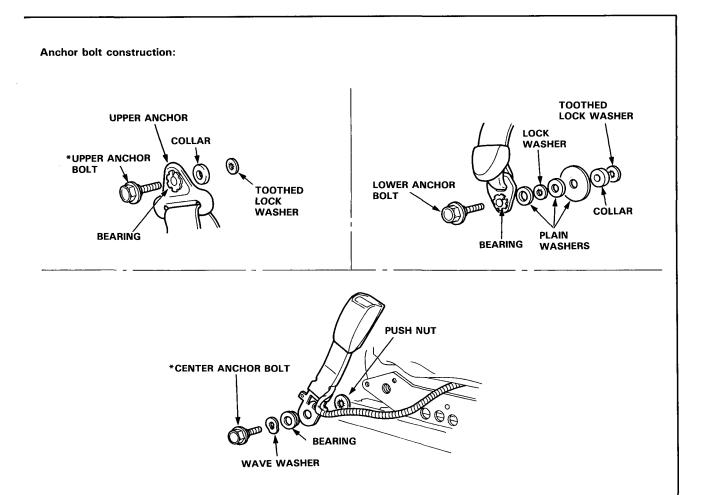
- 1. Remove the front seat and center pillar lower trim.
- 2. Remove all three anchor bolts, the retractor bolt and retractor mounting bolt, then remove the seat belt and seat belt buckle.

NOTE: When removing the anchor bolts and retractor bolt, use a 17 mm socket or box-end wrench.

CAUTION: When removing the retractor, do not touch the belt pretensioner.







3. Check that the retractor locking mechanism functions as described on page 20-20.

NOTE: When storage of the seat belts is necessary, store them in a place free from water, oil, grease, heat and direct sunlight.

4. Installation is the reverse of the removal procedure.

NOTE:

- Make sure you assemble the washers and collars on the upper, center and lower anchor bolts as shown.
- Before reinstalling the center pillar lower trim, make sure there are no twists or kinks in the seat belts.
- On reassembly, replace the upper and center anchor bolts (\*) and use liquide thread lock.

# **Front Seat Belt**

## Inspection

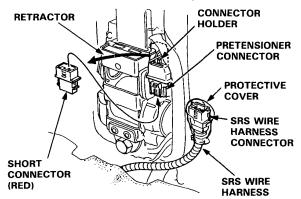
SRS wire harnesses are routed near the retractor.

**A WARNING** All SRS wire harnesses and connectors are colored yellow. Do not use electrical test equipment on these circuits.

CAUTION:

- Be careful not to damage the SRS wire harnesses when servicing the retractor.
- Remove the short connector (RED) from the connector holder and disconnect the SRS wire harness connector, then connect the short connector (RED) to the pretensioner connector.

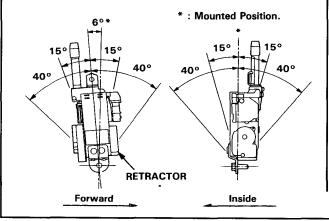
NOTE: To prevent contamination, wrap the SRS wire harness connector with a protective cover.



#### **Retractor Inspection**

- 1. Before installing the retractor, check that the seat belt can be pulled out freely.
- Make sure that the seat belt does not lock when the retractor is leaned slowly up to 15° from the mounted position. The seat belt should lock when the retractor is leaned over 40°.

CAUTION: Do not attempt to disassemble the retractor.



3. Replace the seat belt with a new one if there is any abnormality.

#### **On-the-Car Seat Belt Inspection**

- 1. Check that the seat belt is not twisted or caught on anything.
- 2. After installing the anchors, check for free movement on the anchor bolts. If necessary, remove the anchor bolts and check that the washers and other parts are not damaged or improperly installed.
- 3. Check the seat belts for damage or discoloration. Clean with a shop towel if necessary.

#### CAUTION: Use only soap and water to clean.

NOTE: Dirt built-up in the metal loops of the upper anchors can cause the seat belts to retract slowly. Wipe the inside of the loops with a clean cloth dampened in isopropyl alcohol.

- 4. Check that the seat belt does not lock when pulled out slowly. The seat belt is designed to lock only during a sudden stop or impact.
- Make sure that the seat belt will retract automatically when released.
- 6. Replace the seat belt with a new one if there is any abnormality.

# Dashboard

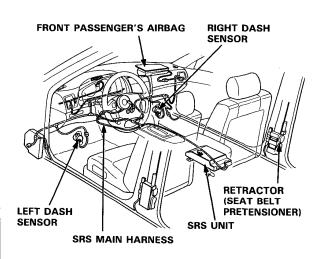


## Replacement

SRS wire harnesses are routed near the dashboard and steering column.

## CAUTION:

- All SRS wiring harnesses are covered with yellow outer insulation.
- Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



- 1. To remove the dashboard, first remove the:
  - Front seats
  - Center console panel
  - Center armrest
  - Stereo radio/cassette
  - Glove box lower panel
  - Glove box
  - Left glove box cover
  - Dashboard lower cover
  - Kick panel

2. Lower the steering column (see section 17).

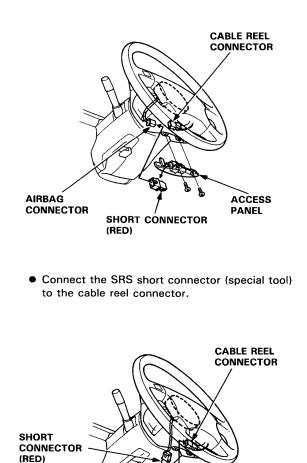
**A WARNING** To avoid accidental deployment and possible injury always install the short connector on the airbag connector when the SRS wire harness is disconnected.

## NOTE:

SRS

SHORT CONNECTOR 07MAZ-SP00200

 Remove the access panel, then remove the short connector (RED). Disconnect the connector between the airbag and cable reel, then connect the short connector (RED) to the airbag connector.

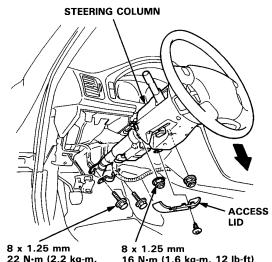


(cont'd)

# Dashboard

# Replacement (cont'd)

NOTE: To prevent damage to the steering column, wrap it with a shop towel.



22 N·m (2.2 kg-m, 16 lb-ft)

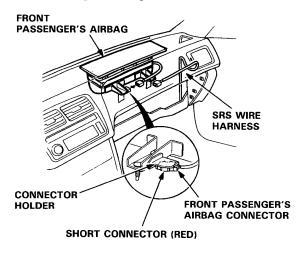
16 N·m (1.6 kg-m, 12 lb-ft) Replace.

3. Remove the nuts and screw, then remove the airbag brackets (passenger's).

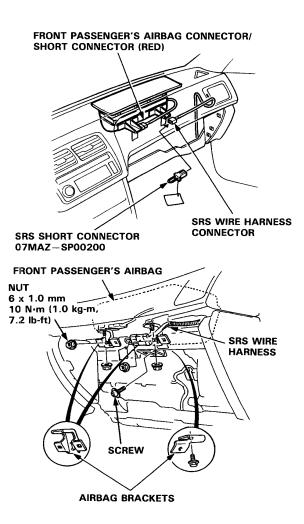
A WARNING To avoid accidental deployment and possible injury always install the short connector on the airbag connector when the SRS wire harness is disconnected.

#### NOTE:

• Disconnect the connector between the front passenger's airbag and SRS wire harness. Connect the short connector (RED) to the front passenger's airbag connector.



 Connect the SRS short connector (special tool) to the SRS wire harness connector.



- 4. Remove the right glove box side cover and dashboard side cover.
- 5. Disconnect the connectors.
- 6. Disconnect the opener cable from the hood release handle.

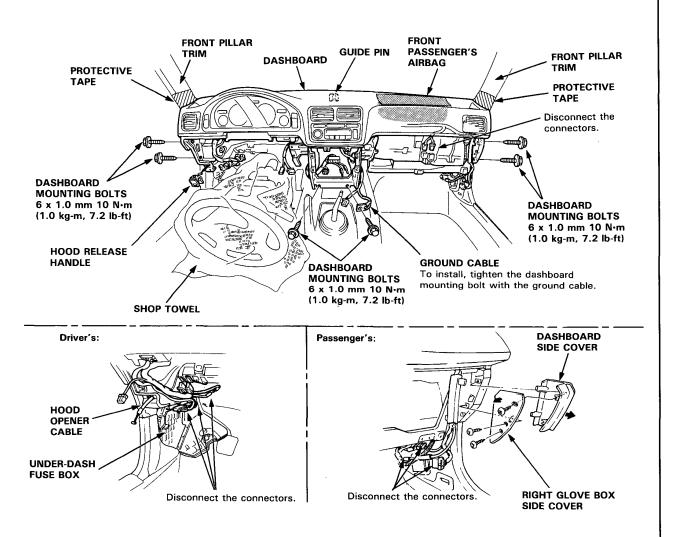


7. Remove the six mounting bolts, then lift and remove the dashboard.

#### CAUTION:

- Use protective tape on the bottom of the front pillar trim.
- When prying with a flat tip screwdriver, wrap it with protective tape to prevent damage.

NOTE: Take care not to scratch the dashboard.



8. Installation is the reverse of the removal procedure.

## NOTE:

- Make sure the dashboard fits onto the guide pin correctly.
- Before tightening the dashboard mounting bolts, make sure the dashboard wire harnesses are not pinched.

# **Heater and Air Conditioning**

Automatic Climate Control ...... 22-1



Outline of Model Changes \_\_\_\_\_

Due to the introduction of new refrigerant R-134a, part descriptions, warnings and handling information were rewritten accordingly.

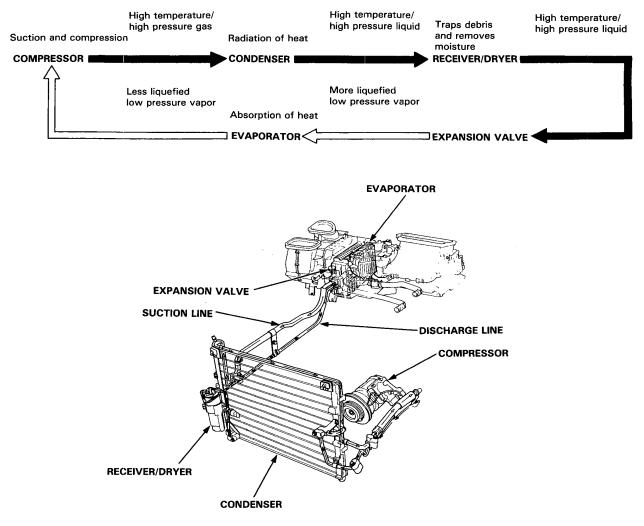
# **Automatic Climate Control**

Description	
Outline	22-2
Compressor	
Relief Valve Replacement	22-3
A/C Service Tips	22-4
A/C System Service	
Discharge	22-5
Evacuation	22-6
Charging	22-7
Leak Test	22-8
Performance Test	22-9

П

# Description

The air conditioning system delivers cooled air into the passenger compartment by circulating refrigerant through the system as shown below.



This car uses R-134a refrigerant which does not contain chlorofluorocarbons. Pay attention to the following service items:

- Do not mix refrigerants R-12 and R-134a. They are not compatible.
- Use only the recommended polyalkyleneglycol (PAG) refrigerant oil "ND-OIL 8" (P/N 38899-PR7-003) designed for the R-134a compressor. Intermixing the recommended (PAG) refrigerant oil with any other refrigerant oil will result in compressor failure.
- All A/C system parts (compressor, discharge line, suction line, evaporator, condenser, receiver/dryer, expansion
  valve, O-rings for joints) have to be proper to refrigerant R-134a. Do not confuse with R-12 parts.
- Use a halogen gas leak detector designed for refrigerant R-134a.
- Use a vacuum pump adapter which is equipped with a check valve to prevent the backflow of the vacuum pump oil.
- Separate the manifold gauge sets (pressure gauges, hoses, joints) for refrigerants R-12 and R-134a. Do not confuse them.

# Compressor

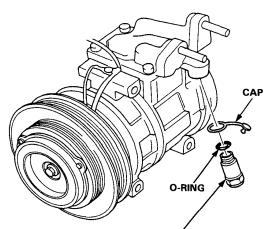


# Relief Valve Replacement

- 1. Discharge the refrigerant.
- 2. Remove the splash shield from below the engine.
- 3. Remove the relief valve and the O-ring from the compressor.

NOTE: Be sure to use the right O-rings for R-134a to avoid leakage.

CAUTION: Be careful not to spill compressor oil, and make sure there is no foreign matter in the system.



RELIEF VÁLVE 13.5 N•m (1.35 kg-m, 9.8 lb-ft)

- 4. Clean the mating surfaces.
- Replace the O-ring at the relief valve with a new one, and apply a thin coat of refrigerant oil (ND-OIL 8: P/N 38899-PR7-003) before installing the relief valve.

NOTE:

- Do not return the oil to the container once it is dispensed and never mix it with other refrigerant oils to avoid contamination.
- Immediately after using the oil, replace the cap on the container and seal it to avoid moisture absorption.
- Do not spill the refrigerant oil on the car; it may damage the paint. If the refrigerant oil contacts the paint, wash it off immediately.
- 6. Install and tighten the relief valve.
- 7. Charge with R-134a refrigerant to the system and check for leaks.
- 8. Insert the cap into the top of the relief valve.
- 9. Install the splash shield.

The air conditioning system uses R-134a refrigerant and polyalkyleneglycol (PAG) refrigerant oil "ND-OIL 8" (P/N 38899-PR7-003), which are not compatible with R-12 refrigerant and mineral oil. Do not use R-12 refrigerant or mineral oil in this system and do not attempt to use R-12 servicing equipment; damage to the air conditioning system or your servicing equipment will result.

Separate the manifold gauge sets (pressure gauges, hoses, joints) for refrigerants R-12 and R-134a. Do not confuse them.

## A WARNING When handling refrigerant (R-134a):

- always wear eye protection.
- do not let refrigerant get on your skin or in your eyes. If it does:
  - do not rub your eyes or skin.
  - splash large quantities of cool water into your eyes or on your skin.
  - rush to a physician or hospital for immediate treatment. Do not attempt to treat it yourself.
- keep refrigerant containers (cans of R-134a) stored below 40°C (104°F).
- keep away from open flame. Refrigerant, although non-flammable, will produce poisonous gas if burned.
- work in well-ventilated area. Refrigerant evaporates quickly, and can force all the air out of a small, enclosed area.
- 1. Always disconnect the negative cable from the battery whenever replacing air conditioning parts.
- 2. Keep moisture and dust out of the system. When disconnecting any lines, plug or cap the fittings immediately; don't remove the caps or plugs until just before you reconnect each line.
- Before connecting any hose or line, apply a few drops of refrigerant oil (ND-OIL 8: P/N 38899-PR7-003) to the Oring.
- 4. When tightening or loosening a fitting, use a second wrench to support the matching fitting.
- 5. When discharging the system, don't let refrigerant escape too fast; it will draw the compressor oil out of the system.
- 6. Add refrigerant oil (ND-OIL 8: P/N 38899-PR7-003) after replacing the following parts:

#### NOTE:

- Do not return the oil to the container once it is dispensed and never mix with other refrigerant oils to avoid contamination.
- Immediately after using the oil, replace the cap on the container and seal it to avoid moisture absorption.
- Do not spill the refrigerant oil on the car; it may damage the paint. If the refrigerant oil contacts the paint, wash it off immediately.

Condenser	30 ml (1 fl oz, 1.1 lmp oz)		
Evaporator			
Line or hose	10 ml (1/3 fl oz, 0.4 lmp o	z)	
Receiver/Dryer	10 ml (1/3 fl oz, 0.4 lmp o	z)	
Leakage repair			
			oil drained from the removed
	compressor from 180 ml (6	fl oz. 6.34 Imp oz), and dr	ain the calculated volume of oil
	from the new compressor:	,, or, e.e.,p or,,e a.	
	-	z)-Volume of removed c	ompressor = Draining volume.
			pressor, don't drain more than
	50 ml (1 2/3 fl oz, 1.8 lmp		
	REMOVED	NEW	
	COMPRESSOR	COMPRESSOR	
	00	60	
	<u>8</u> 8 100		
		DRAINING	} 180 ml (6 fl oz, 6.34 lmp oz)

# A/C System Service

## - Discharge

## A WARNING

- Keep away from open flames. The refrigerant, although nonflammable, will produce a poisonous gas if burned.
- Work in a well-ventilated area. Refrigerant evaporates quickly, and can force all the air out of a small enclosed area.

NOTE: Only use a gauge set for refrigerant R-134a.

- 1. Connect the R-134a gauges as shown.
- 2. Disconnect the center hose of the gauge set and place the free end in a shop towel.
- 3. Open the evacuation valve (in case of two valve gauge: open the evacuation stop valve).

4. Slowly open the high pressure valve slightly to let refrigerant flow from the center hose only. Do not open the valve too wide. Check the shop towel to make sure no oil is being discharged with the refrigerant.

CAUTION: If you allow refrigerant to escape too fast, compressor oil will be drawn out of the system.

- After the high pressure gauge reading has dropped below 1000 kPa (10 kg/cm<sup>2</sup>, 142 psi), open the low side valve to discharge both high and low sides of the system.
- Note the gauge reading and, as system pressure drops, gradually open both high and low side valves fully until both gauges indicate 0 kPa (0 kg/cm<sup>2</sup>, 0 psi).

# **EVACUATION VALVE** LOW PRESSURE HIGH PRESSURE LOW PRESSURE HIGH PRESSURE VALVE VALVE VALVE VALVE EVACUATION STOP VALVE LOW PRESSURE LOW PRESSURE QUICK JOINT QUICK JOINT HIGH PRESSURE QUICK JOINT HIGH PRESSURE QUICK JOINT \* INNER DIAMETER (mm)

## THREE VALVE GAUGE

## TWO VALVE GAUGE



# A/C System Service

## - Evacuation

NOTE:

- Only use a gauge set for refrigerant R-134a.
- Use a vacuum pump adapter which is equipped with a check valve to prevent the backflow of the vacuum pump oil.
- When an A/C System has been opened to the atmosphere, such as during installation or repair, it must be evacuated using a R-134a refrigerant vacuum pump. (If the system has been open for several days, the receiver/dryer should be replaced.)
- 2. Connect a R-134a refrigerant gauge, pump and refrigerant containers (cans of R-134a) as shown.

NOTE: Do not open the cans.

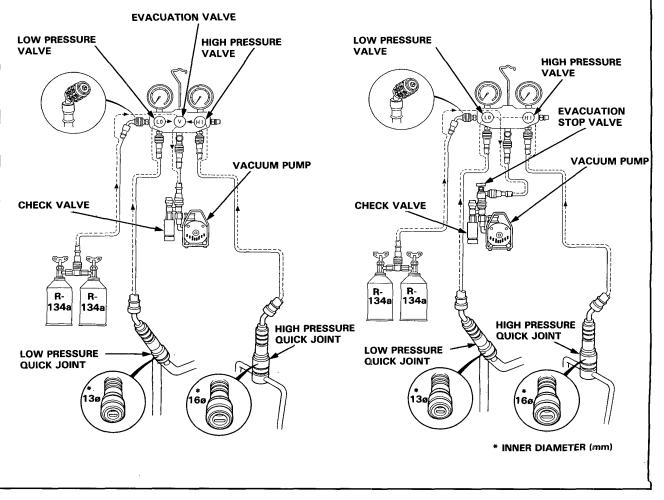
3. Start the pump, then open both pressure valves, and the evacuation valve (in case of two valve

gauge: open the evacuation stop valve). Run the pump for about 15 minutes. Close both pressure valves and the evacaution valve (in case of two valve gauge: close the evacuation stop valve) and stop the pump. The low pressure gauge should indicate above 700 mmHg (27 in-Hg) and remain steady with the valves closed.

NOTE: If low pressure does not reach more than 700 mmHg (27 in-Hg) in 15 minutes, there is probably a leak in the system. Check for leaks, and repair (see Leak Test).

4. If there are no leaks, open the valves and continue pumping for at least another 15 minutes. Then close both valves and stop the pump.

**TWO VALVE GAUGE** 



#### THREE VALVE GAUGE



## Charging

#### NOTE:

- Only use a gauge set for refrigerant R-134a.
- Use a vacuum pump adapter which is equipped with a check valve to prevent the backflow of the vacuum pump oil.

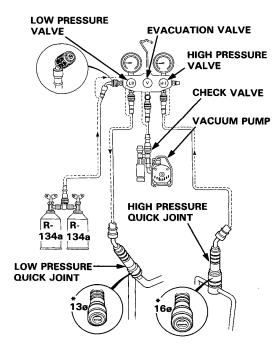
## A WARNING When handling refrigerant (R-134a):

- always wear eye protection.
- do not let refrigerant get on your skin or in your eyes. If it does:
  - do not rub your eyes or skin.
  - splash large quantities of cool water into your eyes or on your skin.
  - rush to a physician or hospital for immediate treatment. Do not attempt to treat it yourself.
- keep refrigerant containers (cans of R-134a) stored below 40°C (104°F).
- keep away from open flame. Refrigerant, although non-flammable, will produce poisonous gas if burned.
- work in well-ventilated area. Refrigerant evaporates quickly, and can force all the air out of a small, enclosed area.

CAUTION: Do not overcharge the system; the compressor will be damaged.

1. After the leak test, check that the high pressure valve is closed and start the engine.

## THREE VALVE GAUGE



NOTE: Run the engine below 1500 rpm (min<sup>-1</sup>).

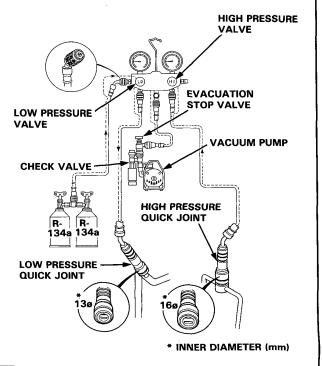
- Open the front door. Turn the A/C switch ON. Set the temperature control dial to MAX. COOL. Push the mode control button to VENT. Push the fan switch to MAX.
- 3. Open the low pressure valve and charge with R-134a refrigerant.

#### A WARNING

- Do not open the high pressure valve.
- Do not turn the cans upside down.
- Charge the system with refrigerant capacity. Refrigerant capacity: 750 <sup>+</sup><sub>50</sub> g (26.5 <sup>+</sup><sub>1.8</sub> oz)
- 5. When fully charged, close the low pressure valve and the refrigerant cans. Check the system.
- 6. Stop the engine and disconnect the charge hose quickly.
- 7. Check the system for leaks using a leak detector proper to refrigerant R-134a.

NOTE: Particularly check for leaks around the compressor, condenser, and receiver/dryer.

#### TWO VALVE GAUGE



# A/C System Service

## Leak Test ·

## NOTE:

- Only use a gauge set for refrigerant R-134a.
- Use a vacuum pump adapter which is equipped with a check valve to prevent the backflow of the vacuum pump oil.

## A WARNING When handling refrigerant (R-134a):

- always wear eye protection.
- do not let refrigerant get on your skin or in your eyes. If it does:
  - do not rub your eyes or skin.
  - splash large quantities of cool water into your eyes or on your skin.
  - rush to a physician or hospital for immediate treatment. Do not attempt to treat it yourself.
- keep refrigerant containers (cans of R-134a) stored below 40°C (104°F).
- keep away from open flame. Refrigerant, although non-flammable, will produce poisonous gas if burned.
- work in well-ventilated area. Refrigerant evaporates quickly, and can force all the air out of a small. enclosed area.

## THREE VALVE GAUGE

**EVACUATION VALVE** 

- 1. Close the evacuation valve (in case of two valve gauge: close the evacuation stop valve).
- 2. Open the cans.
- 3. Open the high pressure valve to charge the system to about 100 kPa (1.0 kg/cm<sup>2</sup>, 14 psi), then close it.

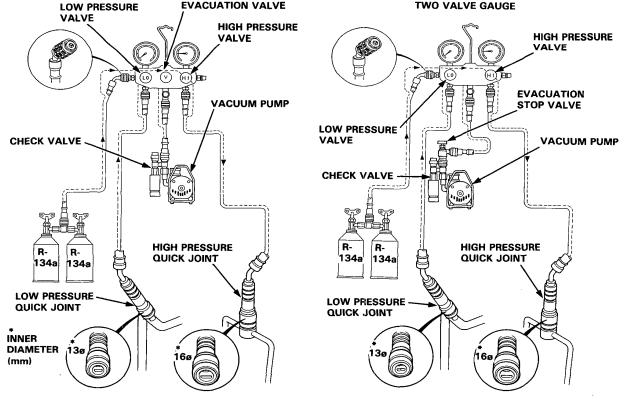
NOTE: Close the low pressure valve.

4. Check the system for leaks using a leak detector proper to refrigerant R-134a.

NOTE: Particularly check for leaks around the compressor, condenser, and receiver/dryer.

- 5. If you find any leaks, tighten the joint nuts and bolts to the specified torque.
- 6. Recheck the system for leaks using a leak detector.
- 7. If you find leaks that require the system to be opened (to repair or replace hoses, fittings, etc.), release any charge in the system.
- 8. After checking and repairing leaks, the system must be evacuated (see System Evacuation).

#### **TWO VALVE GAUGE**



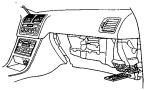


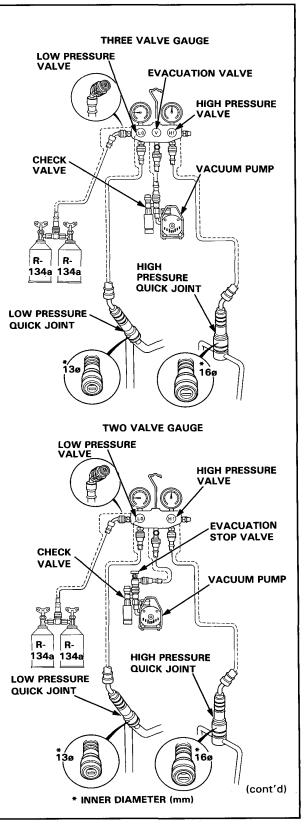
## Performance Test

The performance test will help determine if the air conditioning system is operating within specifications.

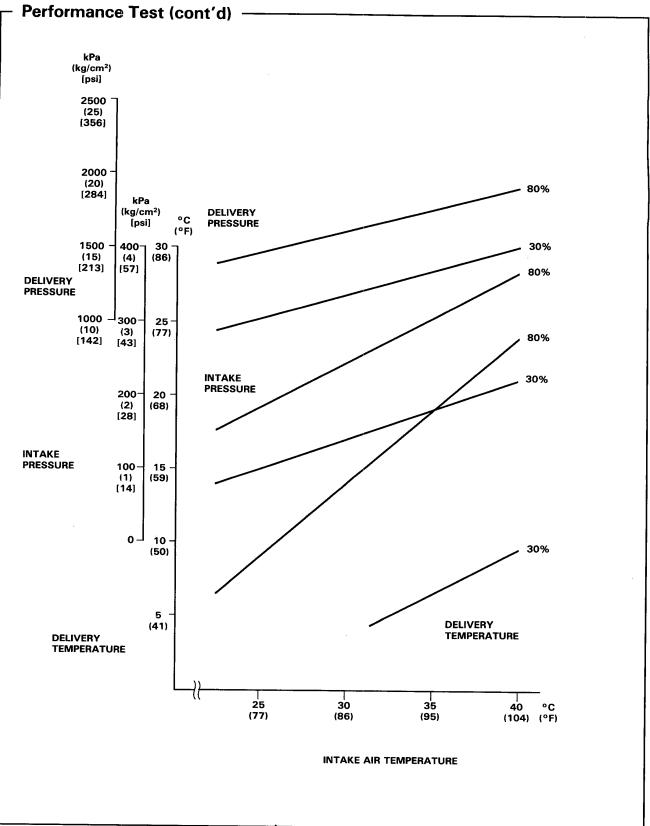
#### NOTE:

- Only use a gauge set for refrigerant R-134a.
- Use a vacuum pump adapter which is equipped with a check valve to prevent the backflow of the vacuum pump oil.
- 1. Connect the R-134a gauges as shown.
- 2. Insert a thermometer in the center vent outlet. Determine the relative humidity and ambient air temperature by a portable weather station or calling the local weather station.
- 3. Test conditions:
  - Avoid direct sunlight.
  - Open hood.
  - Open front doors.
  - Set the temperature control dial to MAX. COOL, push the mode control button to VENT, and push the recirculation button.
  - Push the fan switch to MAX.
  - Run the engine at 1,500 rpm (min<sup>-1</sup>).
  - No driver or passengers in vehicle.
- 4. After running the air conditioning for 10 minutes under the above-mentioned test conditions, read the delivery temperature from the thermometer in the dash vent, and the high and low system pressures from the A/C gauges.
- 5. To complete the charts:
  - Mark the delivery temperature along the vertical line.
  - Mark the intake air temperature (ambient air temperature) along the bottom line.
  - Draw a line straight up from the air temperature to the humidity level.
  - Mark a point one line above and one line below the humidity level (10% above and 10% below the humidity level).
  - From each point, draw a horizontal line across to the delivery temperature.
  - The delivery temperature should fall between the two lines.
  - Complete the low side pressure test and high side pressure test in the same way.
  - Any measurements outside the line may indicate the need for further inspection.





# A/C System Service



## Read this before you do any electrical work on the car.

The Legend Supplemental Restraint System (SRS) includes a driver's airbag, located in the steering wheel hub, a front passenger's airbag, located in the dashboard above the glove box, and seat belt pretensioners, located in the seat belt retractors.

Information necessary to safely service the SRS is included in this shop manual. Items marked with an asterisk (\*) on the contents page include, or are located near, SRS components. Servicing, disassembling or replacing these items will require special precautions and tools, and should therefore be done only by an authorized Honda or Acura dealer.

#### A WARNING

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

# **Electrical**

Special Tools23-2 Troubleshooting	<ul> <li>Integrated Control Unit (KY model)</li></ul>
Schematic Symbols 23-3	<ul> <li>Interlock System (KQ model) 23-16</li> </ul>
Wire Colors	Power Rear Passenger's Seat (KY,KQ, and KT models) 23-33
Airbags	Stereo Sound System (KQ model) 23-28
Ignition System 23-32	* Supplemental Restraint System (SRS) 23-37

\*Read SRS precautions on page 23-54, then install the short connectors on the airbags before working in these areas.

## Outline of Model Changes -

- · Ground Distribution: The ground distribution has partly changed.
- Interlock System: The interlock system has been added to the KQ model.
- Integrated Control Unit: The key-in reminder system has been added to the KY model.
- Stereo Sound System: A radio rear remote switch has been added to the KQ model.
- · Ignition System: The spark plug list for models without catalytic converter has been added.
- Power Rear Passenger's Seat: The rear passenger's power seat has been added to the KY, KQ, and KT models.
- · SRS: The front passenger's airbag and seat belt pretensioners have been added.



# **Special Tools**

Ref. No.	Tool Number	Description	Qty.	Page Reference
	07MAZ-SL00500	Test Harness A	1	23-59
õ	07MAZ-SP00500	Test Harness B	1	23-62
Ğ	07MAZ-SP00600	Test Harness C	1	23-63
<u>(4)</u>	07 L AZ-SL40400	Test Harness D	1	23-66
6	07HAZ-SG00500	Deployment Tool	1	23-79
1 2 3 4 5 6	07MAZ-SP00200	Short Connector A Set		23-54
				<u></u>
Ś	0		3	
		600000000000000000000000000000000000000		6

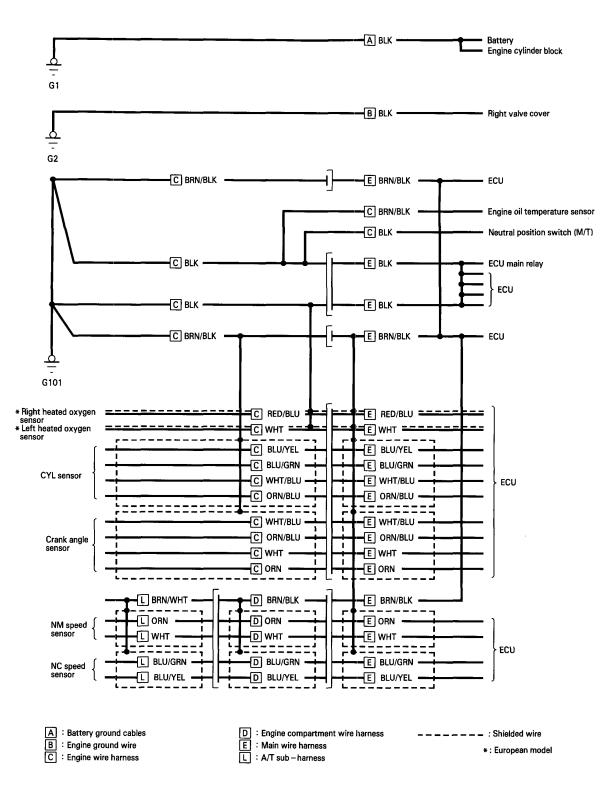
# **Troubleshooting**



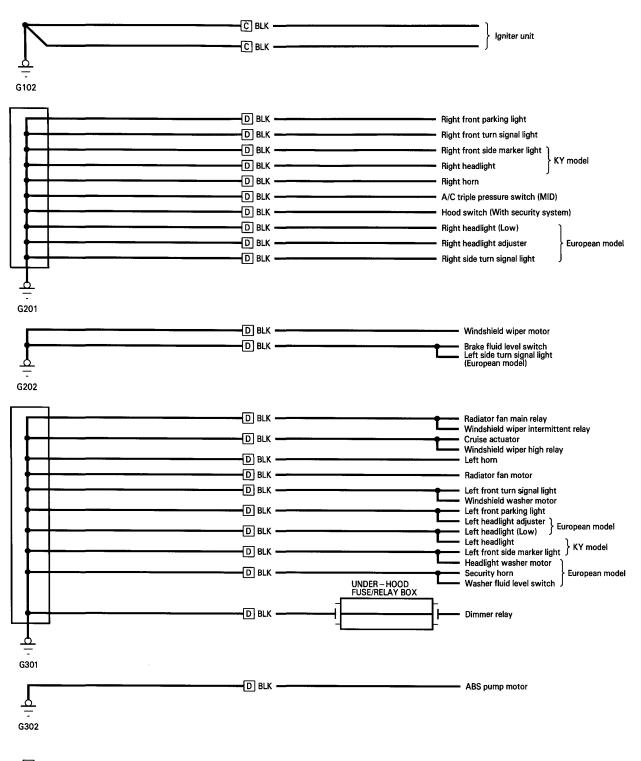
BATTERY       Ground terminal       ORDUND.         Ground terminal       Component ground       FUSE       COIL. SOLENOID       CIGARETTE LIGHTER         Ground terminal       Image: Control of the contro		Symbols					
Image: Strong intermed position       VARIABLE RESISTOR       THERMISTOR       IGNITION SWITCH       BULB       HEATER         Image: Strong intermed position         Normally open relay Normally closed relay       Image: Strong intermed position       Image: Strong intermed position       Image: Strong intermed position       Image: Strong intermed position         Normally open relay Normally closed relay       Image: Strong intermed position         Normally open relay Normally closed relay       Image: Strong intermed position       Image: Strong intermed position       Image: Strong intermed position       Image: Strong intermed position         Normally open relay Normally closed relay       Image: Strong intermed position       Image: Strong intermed position       Image: Strong intermed position       Image: Strong intermed position         Normally open relay Normally closed relay       Image: Strong intermed position       Image: Strong intermed position       Image: Strong intermed position       Image: Strong intermed position         Normally open relay Normally closed relay       Image: Strong intermed position <t< th=""><th>BATTERY</th><th></th><th></th><th>FUSE</th><th>COIL, SOLENOID</th><th>CIGARETTE LIGHTER</th></t<>	BATTERY			FUSE	COIL, SOLENOID	CIGARETTE LIGHTER	
Image: Second construction       Image: Second construction <td< td=""><th>[○ · ⊙] (+)</th><td><u>L</u></td><td></td><td></td><td>a la</td><td></td></td<>	[○ · ⊙] (+)	<u>L</u>			a la		
Image: Mast window       TRANSISTOR (Tr)         Method window       TRANSISTOR (Tr)         Mast window       TRANSISTOR (Tr)         Method window       TRANSISTOR (Tr)         Mast window       TRANSISTOR (Tr)         Mast window       Transcience         Mast window       Transcience         RELAY (In normal position)       CONDENSER         The following abbreviations are used to identify wire colors in the circuit schematics:         WHT       White Blue         SWITCH (In normal position)       LIGHT EMITTING DIODE (LED)         Switch witch	RESISTOR	VARIABLE RESISTOR	THERMISTOR	IGNITION SWITCH	BULB	HEATER	
Image: Mast window       TRANSISTOR (Tr)         Method window       TRANSISTOR (Tr)         Mast window       TRANSISTOR (Tr)         Method window       TRANSISTOR (Tr)         Mast window       TRANSISTOR (Tr)         Mast window       Transcience         Mast window       Transcience         RELAY (In normal position)       CONDENSER         The following abbreviations are used to identify wire colors in the circuit schematics:         WHT       White Blue         SWITCH (In normal position)       LIGHT EMITTING DIODE (LED)         Switch witch					¢		
ANTENNA Mast Mast Mast Mast Mindow Mast Mindow	MOTOR	PUMP	CIRCUIT BREAKER	HORN	DIODE	SPEAKER, BUZZER	
Mast       Window         Image: Construct of the second color of the stripe.       Image: Construct of the stripe.         RELAY (In normal position)       Image: Construct of the stripe.         Normally open relay       Image: Construct of the stripe.         Normally open relay       Image: Construct of the stripe.         Switch       Image: Construct of the stripe.         Switch       Switch         Image: Construct of the stripe.       Image: Construct of the stripe.         Image: Construct of the stripe.       Image: Construct of the stripe.         Switch       Image: Construct of the stripe.         Image: Construct of the stripe.       Image: Construct of the stripe.         Image: Construct of the stripe.       Image: Construct of the stripe.         Image: Construct of the stripe.       Image: Construct of the stripe.         Image: Construct of the stripe.       Image: Construct of the stripe.         Image: Construct of the stripe.       Image: Construct of the stripe.         Image: Construct of the stripe.       Image: Construct of the stripe.         Image: Construct of the stripe.       Image: Construct of the stripe.         Image: Construct of the stripe.       Image: Construct of the stripe.         Image: Construct of the stripe.       Image: Construct of the stripe.         Image: Construct of the strip		P	Ę	H	¥		
Image: Convection       Image: Convection         ReLAY (In normal position)       CONDENSER         Normally open relay       Image: Convection         Image: Convection       Convection         Switch       Image: Convection         Switch       Normally closed         Switch       Light Emultiting         Image: Convection       Convection         Convection       Convection         Rector       Red         ORN       Orange         PNK       Pink         BRN       Brown         Gray       PUR         PUR       Light Blue         LT GRN       Light Green         The wire insulator has one color or one color with another color stripe. The second color is the stripe.         WHT/BLK			TRANSISTOR (Tr)	– Wire Color Codes –			
	Normally open relay	Normally closed relay		colors in the           WHT           YEL           BLK           BLU           GRN           GRN           RED           ORN           PNK           BRN           WHT           The wire ins	The following abbreviations are used to identify wire colors in the circuit schematics:         WHT       White         YEL       Yellow         BLK       Black         BLU       Blue         GRN       Green         RED       Red         ORN       Orange         PNK       Pink         BRN       Brown         GRY       Purple         LT BLU       Light Blue         LT GRN       Light Green         The wire insulator has one color or one color with another color stripe. The second color is the stripe.		
	$ \uparrow  \bigtriangledown$		Ψ				

# **Ground Distribustion (LHD)**

# **Circuit Identification** -



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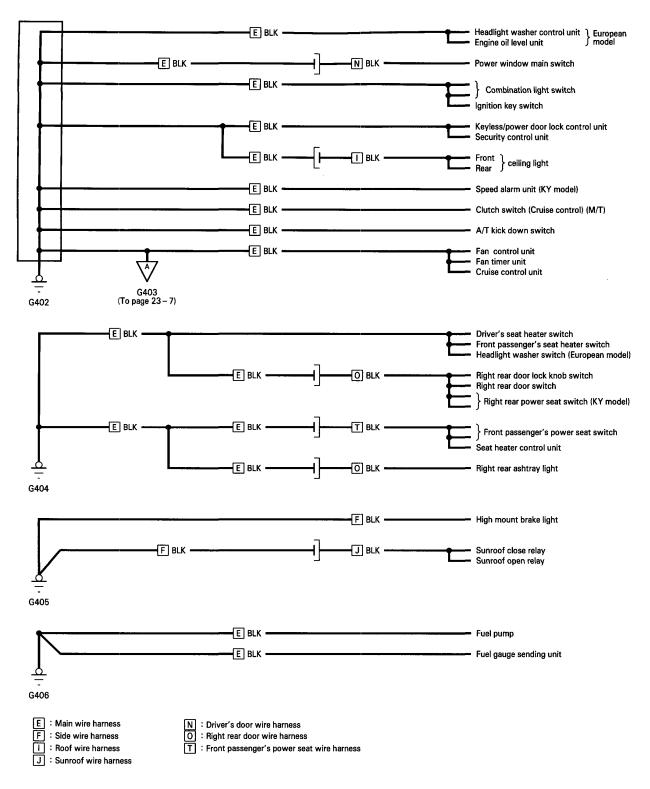


C : Engine wire harness D : Engine compartment wire harness

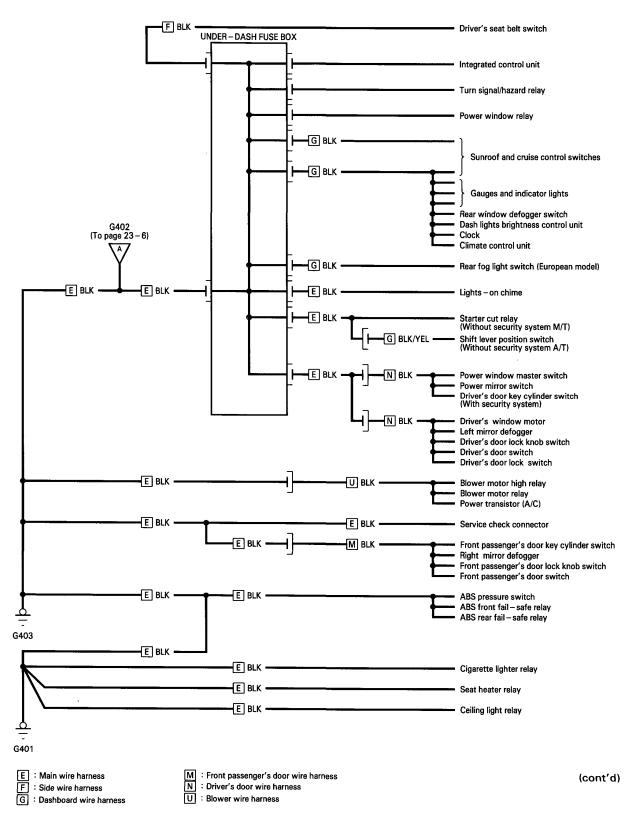
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# **Ground Distribution (LHD)**

**Circuit Identification (cont'd)** 

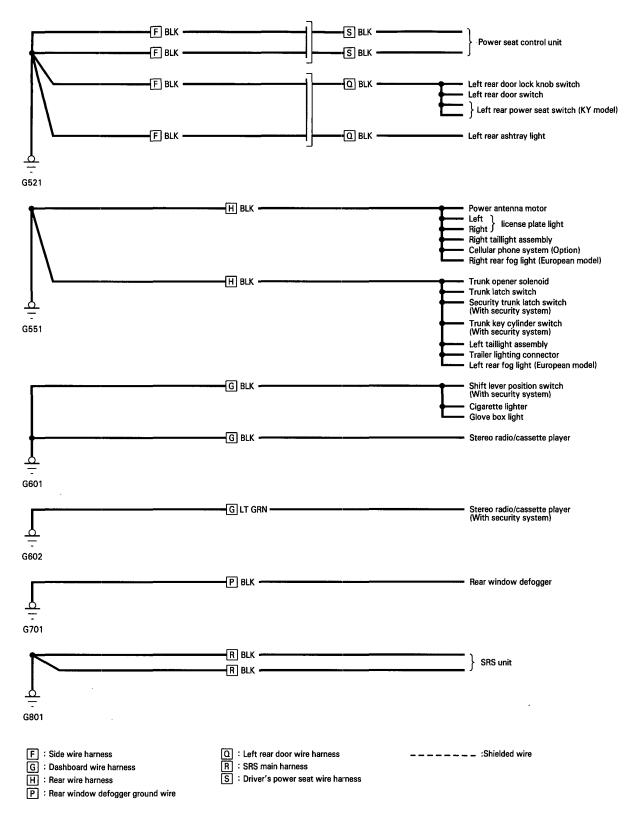






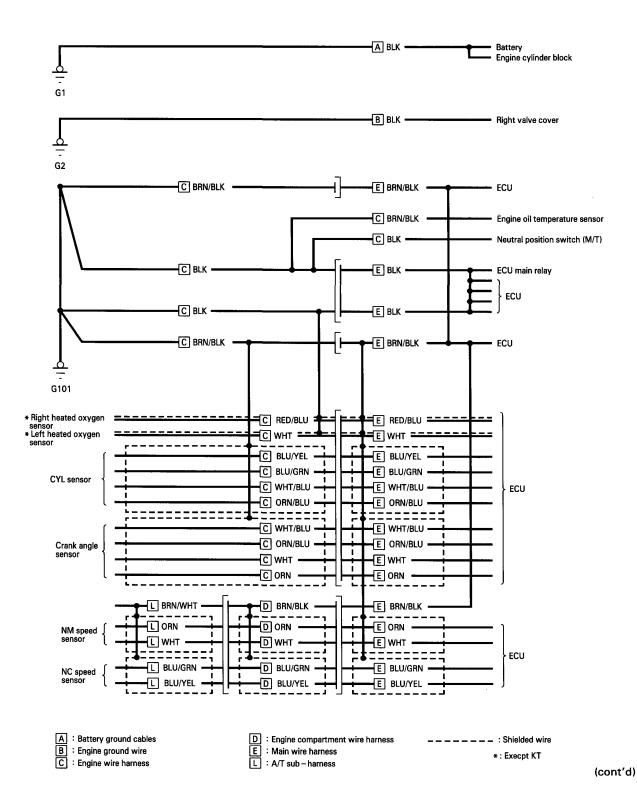
# **Ground Distribution (LHD)**

# Circuit Identification (cont'd) -



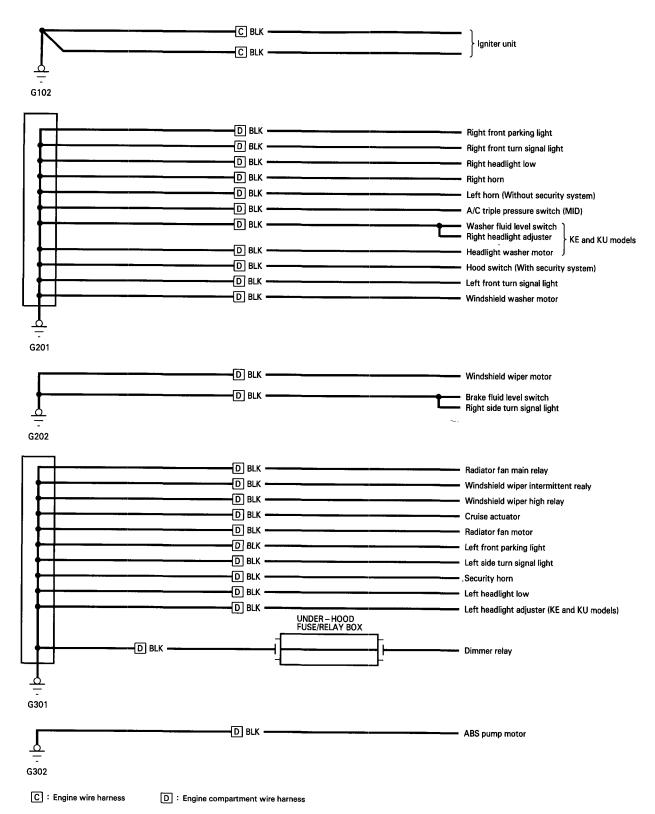


**Circuit Identification** 

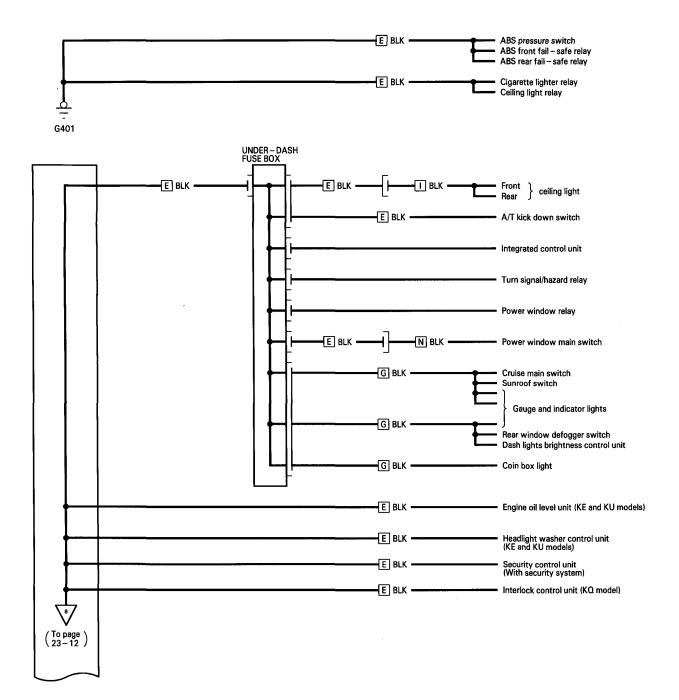


# **Ground Distribution (RHD)**

# Circuit Identification (cont'd) -







E : Main wire harness

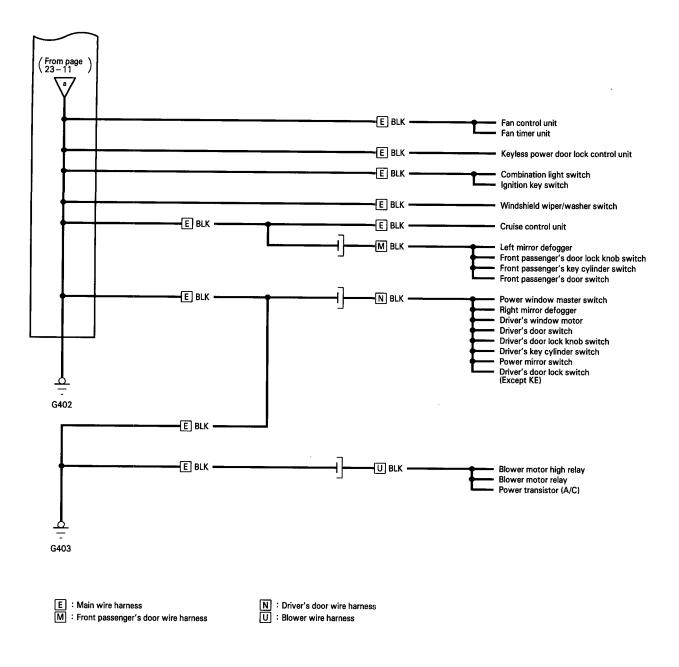
G : Dashboard wire harness

Roof wire harness
 Driver's door wire harness

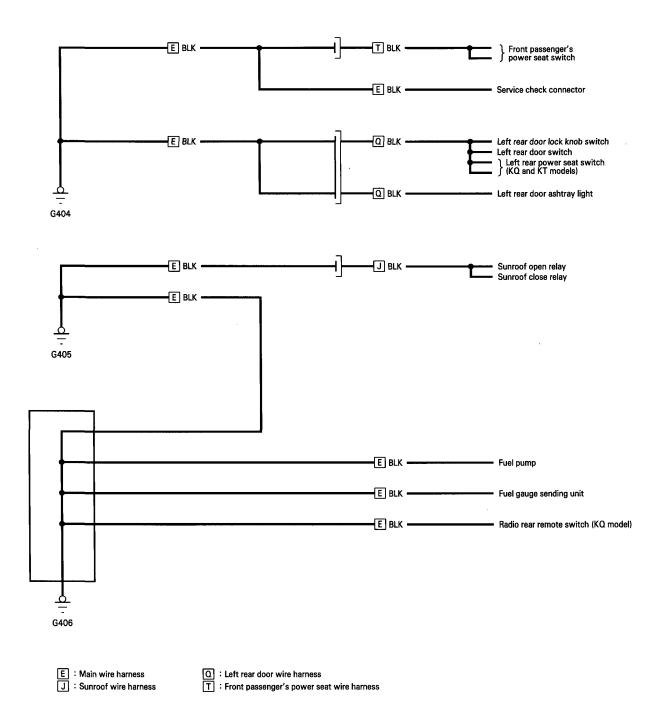
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# **Ground Distribution (RHD)**

Circuit Identification (cont'd) -



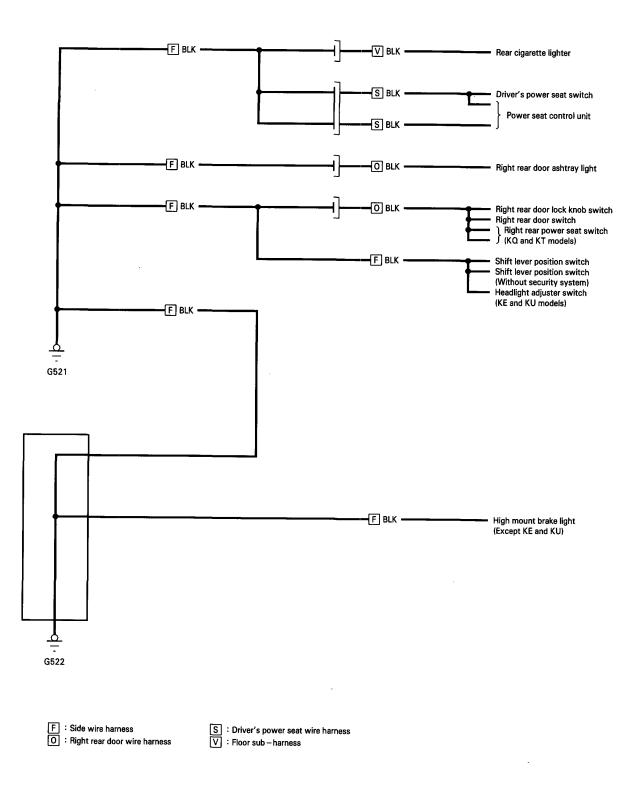




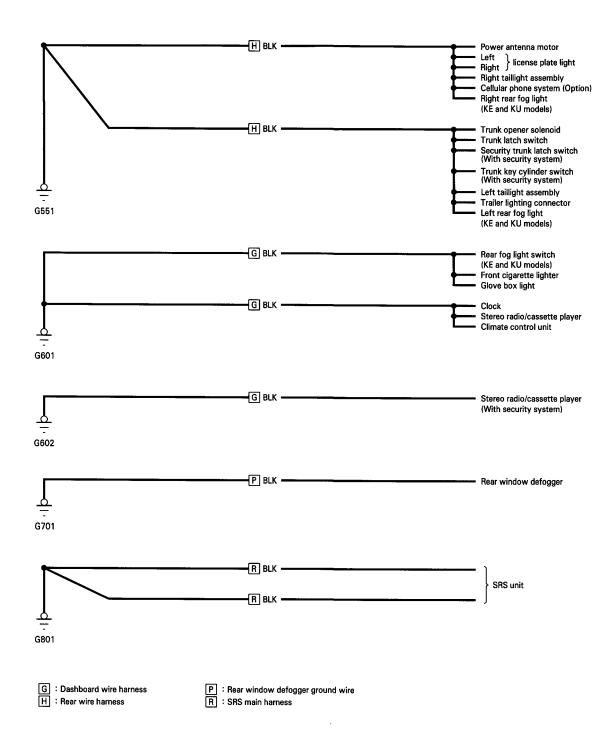
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# **Ground Distribution (RHD)**

Circuit Identification (cont'd) -



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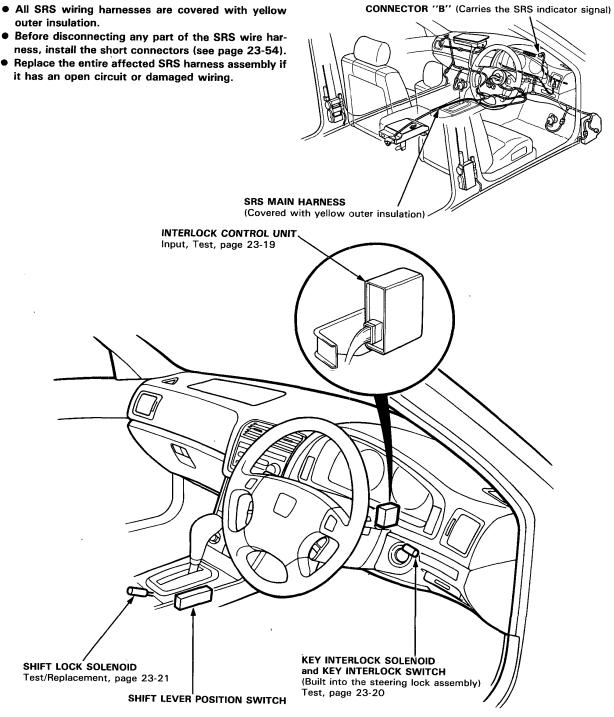


# Interlock System (KQ model)

### **Component Location Index**

#### CAUTION:

- All SRS wiring harnesses are covered with yellow outer insulation.
- Before disconnecting any part of the SRS wire harness, install the short connectors (see page 23-54).
- it has an open circuit or damaged wiring.



### Description

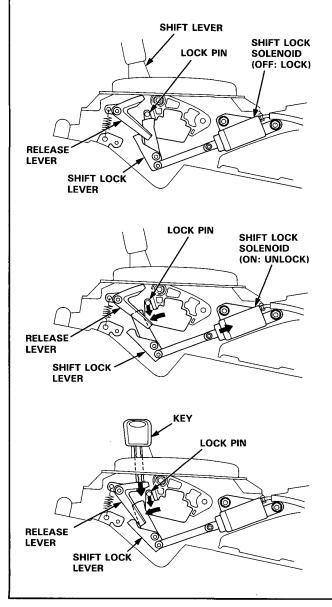
The car is equipped with the following devices to prevent inadvertent shifting:

- Shift lever with shift lock
- Key cylinder with interlocked ignition key

#### Shift Lock System:

The shift lock system prevents the shift lever from moving to  $[\mathbf{R}]$  or  $[\mathbf{D}]$  from position  $[\mathbf{P}]$  unless you step on the brake pedal.

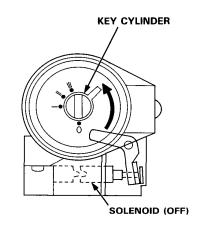
NOTE: In case of system malfunction, the shift lever can be released by pushing a key into the release slot near the shift lever.



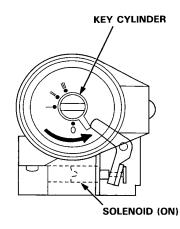
#### Key Interlock System:

The ignition key cannot be removed from the ignition switch unless the shift lever is in [P]. When the shift lever is in any position other than [P], a solenoid is activated, making it impossible to remove the key until the lever is moved to [P].

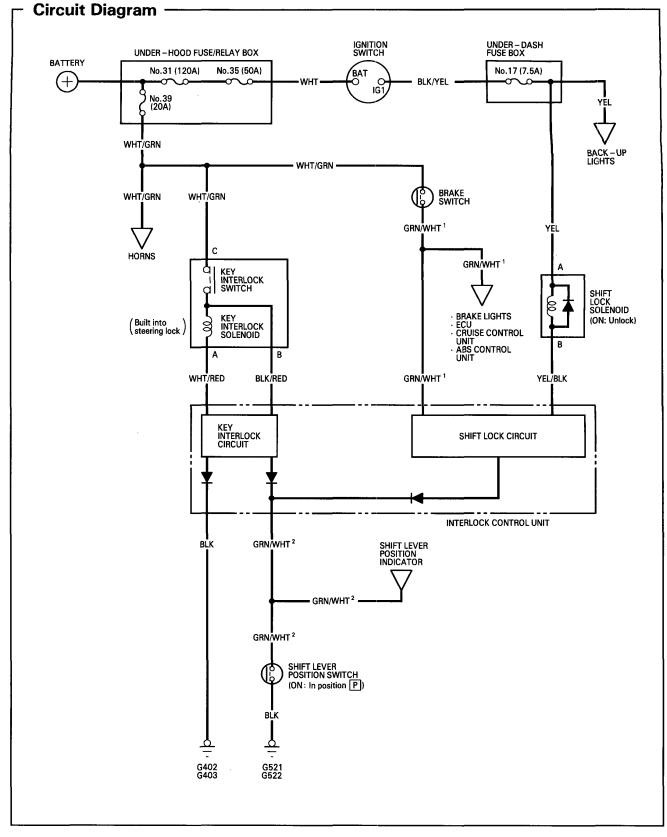
The shift lever is in the P position.



The shift lever is in any position except P.



# Interlock System (KQ model)



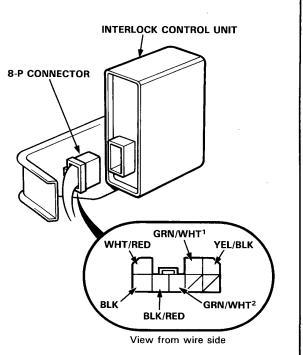


### Control Unit Input Test

Disconnect the 8-P connector from the control unit. Inspect the connector and 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 any test indicates a problem, find and correct the cause, then recheck the system.
  - If all the input tests prove OK, the control unit must be faulty; replace it.

NOTE: If the shift lock solenoid clicks when you step on the brake pedal with the ignition switch ON (II) (the shift lever is in  $\boxed{P}$ ), the shift lock system is electronically OK. If the shift lever cannot be shifted from  $\boxed{P}$ , see shift lever position indicator system and section 14.



#### Shift Lock System:

No.	Wire	Test condition	<b>Test: Desired result</b>	Possible cause if result is not obtained
1	GRN/WHT1	Ignition switch ON (II), brake pedal pushed	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown No. 39 (20 A) fuse</li> <li>Faulty brake switch</li> <li>An open in the wire</li> </ul>
2	GRN/WHT <sup>2</sup>	Shift lever in P	Check for continuity to ground: There should be continuity.	<ul> <li>Faulty shift lever position switch</li> <li>Poor ground (G521,G522)</li> <li>An open in the wire</li> </ul>
3	YEL/BLK	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown No. 17 (7.5 A) fuse</li> <li>Faulty shift lock solenoid</li> <li>An open in the wire</li> </ul>

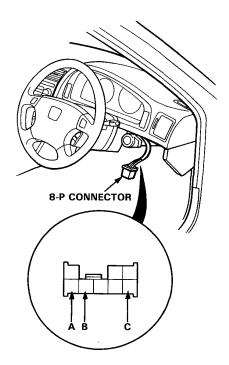
#### Key Interlock System:

No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions	Check for continuity to ground: There should be continuity.	<ul><li>Poor ground (G402,G403)</li><li>An open in the wire</li></ul>
2	GRN/WHT <sup>2</sup>	Shift lever in P	Check for continuity to ground: There should be continuity.	<ul> <li>Faulty shift lever position switch</li> <li>Poor ground (G521,G522)</li> <li>An open in the wire</li> </ul>
3	WHT/RED	Ignition switch turned to ACC (I) and the key pushed in all the way	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown No. 39 (20 A) fuse</li> <li>Faulty steering lock assembly (key interlock solenoid)</li> <li>An open in the wire</li> </ul>
4	BLK/RED	Ignition switch turned to ACC (I) and the key pushed in all the way	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown No. 39 (20 A) fuse</li> <li>Faulty steering lock assembly (key interlock solenoid)</li> <li>An open in the wire</li> </ul>

# Interlock System (KQ model)

### Key Interlock Solenoid Test

- 1. Remove the dashboard lower cover.
- 2. Disconnect the 8-P connector from the main wire harness.



3. Check for continuity between the terminals in each switch position according to the table.

Terminal Position		A	В	С
lgnition switch	Key pushed in	0	0	
ACC (1)	Key released	0	0	

- 4. Check that the key cannot be removed with power and ground connected to the A and C terminals.
  - If the key cannot be removed, the key interlock solenoid is OK.
  - If the key can be removed, replace the steering lock assembly (key interlock solenoid is not available separately).

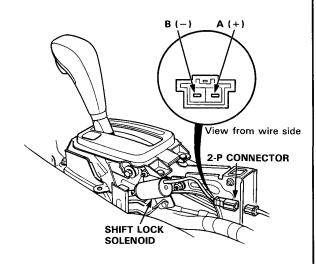
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### Shift Lock Solenoid Test/Replacement

#### Test:

 Remove the console, then disconnect the 2-P connector of the shift lock solenoid from the side wire harness.

NOTE: This solenoid has a diode in it. To get an accurate reading, either test it with a volt-ohmmeter that compensates for diodes, or make sure you connect your test leads to match the polarity shown.



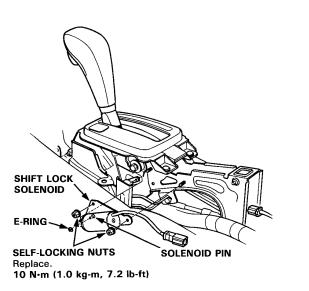
 Connect battery power to the A terminal, ground the B terminal momentarily and check, to see if the solenoid works. If the solenoid does not work, replace it.

#### NOTE:

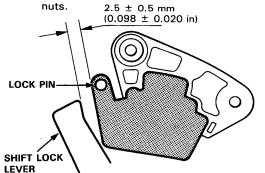
- When the shift lock solenoid is ON, check that there is a clearance of  $2.5 \pm 0.5$  mm (0.098  $\pm$  0.020 in) between the top corner of the shift lock lever and the side of the lock pin (see clearance check on this page).
- When the shift lock solenoid is OFF, make sure that the lock pin is blocked by the top of the shift lock lever. If it is not blocked, adjust the position of the shift lock solenoid.

#### **Replacement:**

- 1 Remove the E-ring and the solenoid pin.
- 2. Remove the self-locking nuts and shift lock solenoid.

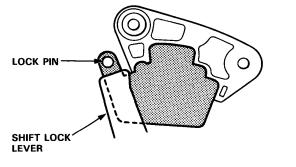


- 3. Install the new shift lock solenoid in the reverse order of removal and adjust its position.
  - When the shift lock solenoid is ON, check that there is a clearance of  $2.5 \pm 0.5$  mm (0.098  $\pm$  0.020 in) between the top corner of the shift lock lever and the side of the lock pin, then tighten the self-locking nuts. Use brand-new self-locking

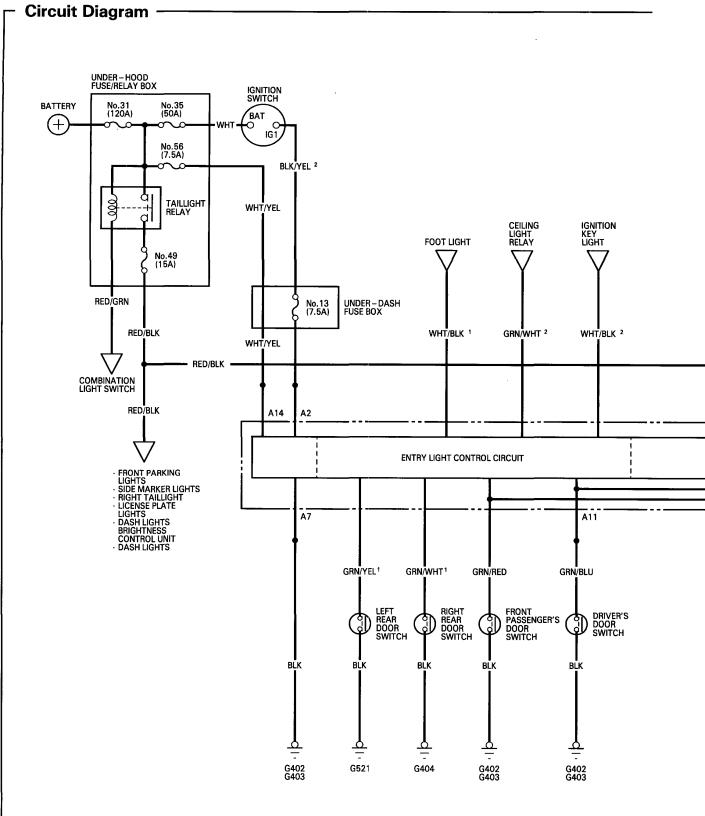


 When the shift lock solenoid is OFF, make sure that the lock pin is blocked by the shift lock lever.

NOTE: Test the solenoid after you assemble it.





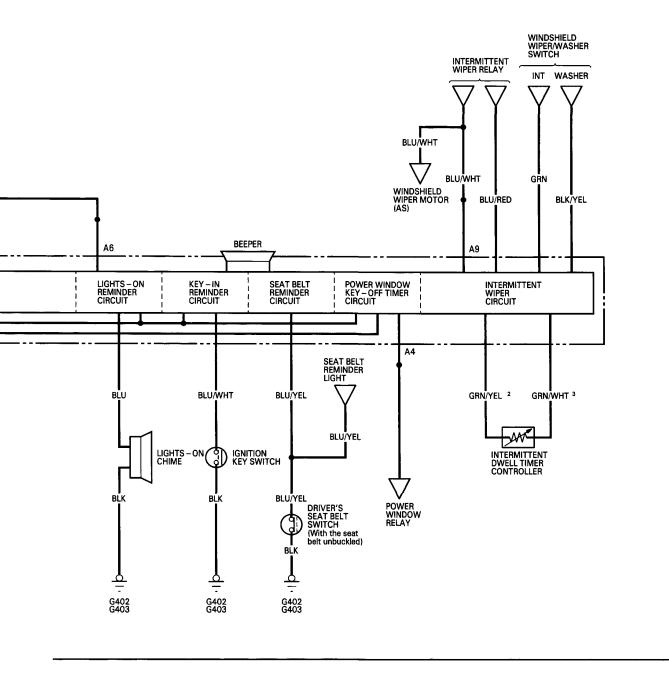




#### Description

This multi – function control unit located on the left kick panel integrates on one circuit board the functions of the entry light control, key – in reminder, lights – on reminder, seat belt reminder, power window key – off timer, and intermittent wiper onto one circuit board, sharing common circuit functions.

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



# Integrated Control Unit (KY model)

### Input Test

Remove the left kick panel cover and under-dash fuse box, then disconnect the 22-P connector from the integrated control unit. Remove the integrated control unit from the under-dash fuse box.

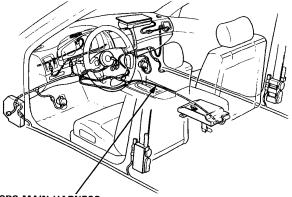
Inspect the connector and socket terminals to be sure they are all making good contact.

- 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 and the under-dash fuse box socket.
  - If any test indicates a problem, find and correct the cause, then recheck the system.
  - If all the input tests prove OK, the control unit must be faulty; replace it.

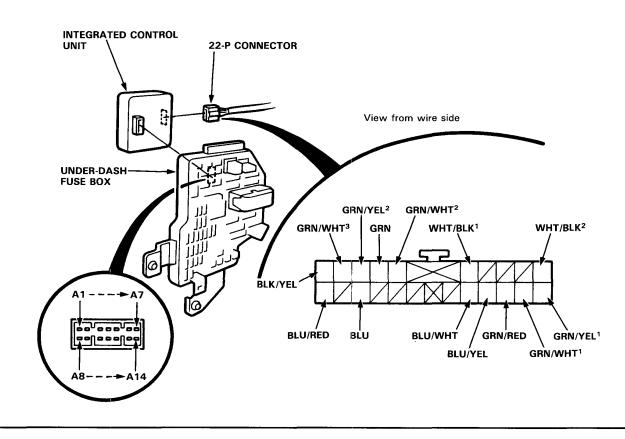
NOTE: Different wires with the same color have been given a number suffix to distinguish them (for example, WHT/GRN<sup>1</sup> and WHT/GRN<sup>2</sup> are not the same).

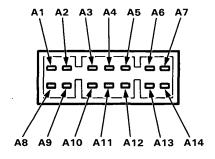
CAUTION:

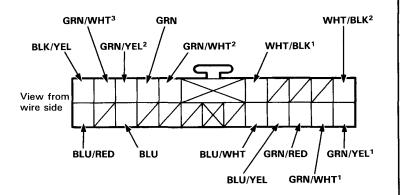
- All SRS wiring harnesses are covered with yellow outer insulation.
- Before disconnecting any part of the SRS wire harness, install the short connectors (see page 23-54).
- Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring.



SRS MAIN HARNESS (Covered with yellow outer insulation)







### All Systems:

No.	Terminal	Test condition	<b>Test: Desired result</b>	Possible cause if result is not obtained
1	Α7	Under all conditions	Check for continuity to ground: There should be continuity.	<ul> <li>Poor ground (G402, G403)</li> <li>An open in the wire</li> </ul>
2	A14	Under all conditions	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown No. 56 (7.5 A) fuse</li> <li>An open in the wire</li> </ul>
3	A2	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown bulb or No. 13 (7.5 A) fuse</li> <li>An open in the wire</li> </ul>

#### Key-in Reminder System:

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	A11	Driver's door open	Check for continuity to ground: There should be continuity. NOTE: Before testing, remove No. 57 (15 A) fuse.	<ul> <li>Faulty driver's door switch</li> <li>An open in the wire</li> </ul>
2	BLU/WHT1	lgnition key inserted all the way into the ignition switch	Check for voltage to ground: There should be 1 V or less.	<ul> <li>Faulty ignition key switch</li> <li>Poor ground (G402,G403)</li> <li>An open in the wire</li> </ul>

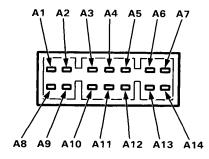
#### Lights-on Reminder System:

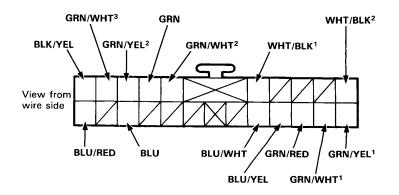
No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	A11	Driver's door open	Check for continuity to ground: There should be continuity. NOTE: Before testing, remove No. 57 (15 A) fuse.	<ul> <li>Faulty driver's door switch</li> <li>An open in the wire</li> </ul>
2	A6	Combination light switch ON	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown No. 49 (15 A) fuse</li> <li>Faulty combination light switch</li> <li>Faulty taillight relay</li> <li>An open in the wire</li> </ul>
3	BLU	Connect the A14 terminal to the BLU terminal.	Check chime operation: Chime should sound each time the battery is connected.	<ul><li>Faulty chime</li><li>An open in the wire</li></ul>

(cont'd)

# Integrated Control Unit (KY model)

Input Test (cont'd) ———





### Seat Belt Reminder System:

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLU/YEL	Ignition switch ON (II) and driver's seat belt not buckled	Check for voltage to ground: There should be 1 V or less.	<ul> <li>Faulty driver's seat belt switch</li> <li>Poor ground (G402,G403)</li> <li>An open in the wire</li> </ul>

#### **Entry Light Control System**

No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	A11	Driver's door open	Check for continuity to ground:	Faulty door switch
	GRN/RED	Front passenger's door open	There should be continuity. NOTE: Before testing, remove	• An open in the wire
	GRN/YEL <sup>1</sup>	Left rear door open	No. 57 (15 A) fuse.	
	GRN/WHT <sup>1</sup>	Right rear door open		
2	WHT/BLK <sup>1</sup>	Under all conditions	Attach to ground: Foot well light should come on.	<ul> <li>Blown No. 57 (15 A) fuse</li> <li>Blown bulb</li> <li>An open in the wire</li> </ul>
3	WHT/BLK <sup>2</sup>	Under all conditions	Attach to ground: Ignition key light should come on.	<ul> <li>Blown No. 57 (15 A) fuse</li> <li>Blown bulb</li> <li>An open in the wire</li> </ul>
4	GRN/WHT <sup>2</sup>	Ceiling light switch at MIDDLE position	Attach to ground: Ceiling lights, front and rear courtesy lights should come on.	<ul> <li>Blown No. 57 (15 A) fuse</li> <li>Blown bulb</li> <li>Faulty ceiling light relay</li> <li>An open in the wire</li> </ul>



### Power Window Key-off Timer System:

No.	Terminal	Test condition	<b>Test: Desired result</b>	Possible cause if result is not obtained
1 A11		Driver's door open	Check for continuity to ground: There should be continuity.	<ul> <li>Faulty door switch</li> <li>An open in the wire</li> </ul>
	GRN/RED	RN/RED Front passenger's door NOTE: Befo	NOTE: Before testing, remove No. 57 (15 A) fuse.	esting, remove
2	A4	Connect the A4 terminal to the A14 terminal	Check window operation: The power windows should work with key OFF.	<ul> <li>Faulty power window relay</li> <li>Poor ground (G402,G403)</li> <li>An open in the wire</li> </ul>

#### Intermittent Wiper System:

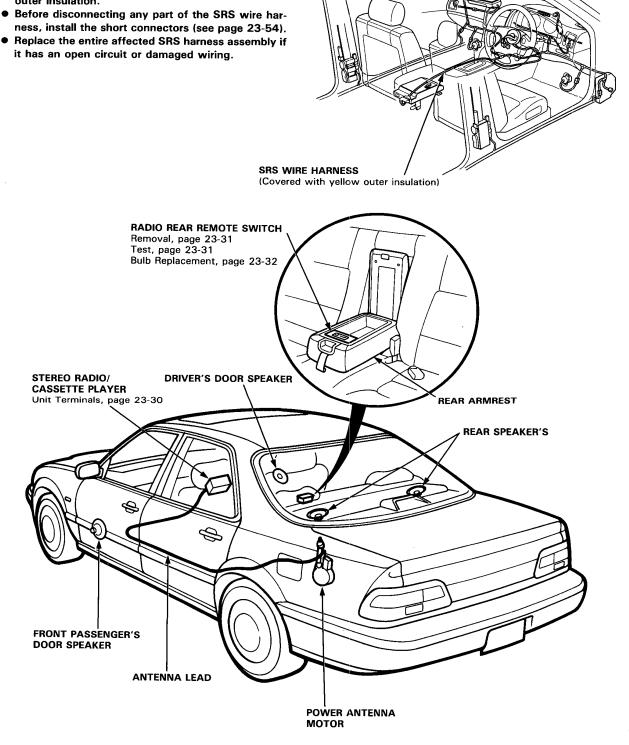
No.	Terminal	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLU/RED	Ignition switch ON (II)	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown No. 23 (7.5 A) fuse</li> <li>Faulty wiper intermittent relay</li> <li>An open in the wire</li> </ul>
2	GRN	Ignition switch ON (II) and wiper switch at INT position	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown No. 23 (7.5 A) fuse</li> <li>Faulty wiper switch</li> <li>An open in the wire</li> </ul>
3	BLK/YEL	lgnition switch ON (II) and washer switch pushed	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown No.23 (7.5 A) fuse</li> <li>Faulty washer switch</li> <li>An open in the wire</li> </ul>
4	GRN/YEL <sup>2</sup> GRN/WHT <sup>3</sup>	Intermittent dwell time control ring turned	Check for resistance between the terminals: It should vary from 0 $\Omega$ to 30 k $\Omega$ as the ring is turned.	<ul> <li>Faulty intermittent dwell time controller</li> <li>An open in the wire</li> </ul>
5	A9	Ignition switch ON (II) and wiper switch OFF	Check for voltage to ground: There should be battery voltage.	<ul> <li>Blown No.26 (30 A) fuse</li> <li>Faulty wiper motor (automatic-stop circuit)</li> <li>An open in the wire</li> </ul>

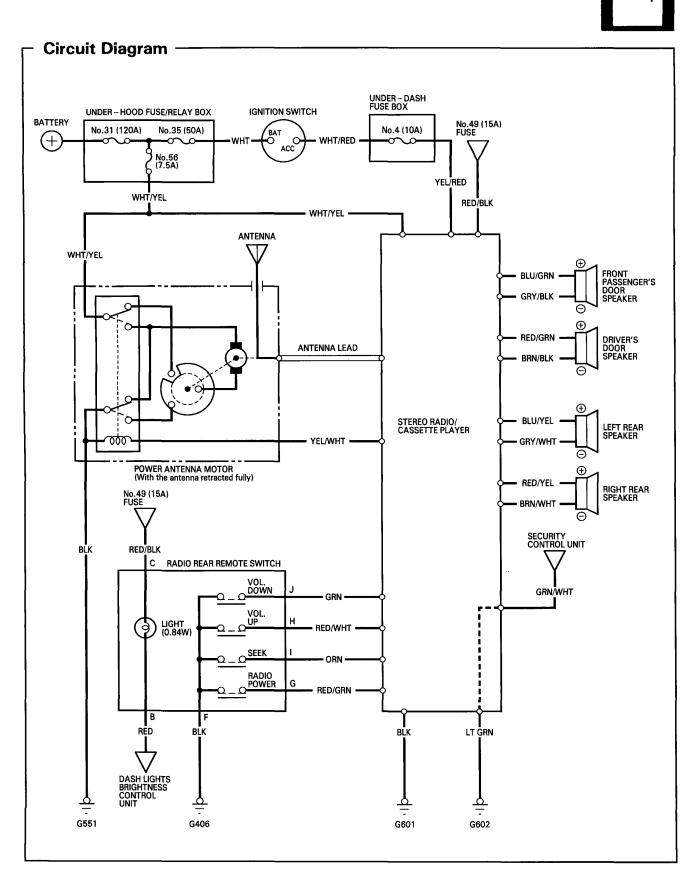
# Stereo Sound System (KQ model)

### **Component Location Index** -

#### CAUTION:

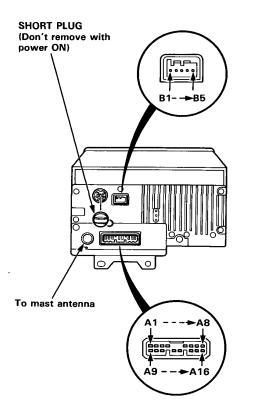
- All SRS wiring harnesses are covered with yellow outer insulation.
- ness, install the short connectors (see page 23-54).
- it has an open circuit or damaged wiring.





# Stereo Sound System (KQ model)

### Unit Terminals —



ermina	Wire	Connects to
A1	RED/GRN	Driver's door speaker 🕀
A2	BLU/GRN	Front passenger's door speaker 🕀
A3	RED/BLK	Lights-on signal
A4	WHT/YEL	Constant power (Tuning memory)
A5	YEL/RED	ACC (Main stereo power supply)
A6	YEL/WHT	Radio switched power (To antenna)
A7	BLU/YEL	Left rear speaker 🕀
A8	RED/YEL	Right rear speaker 🕀
A9	BRN/BLK	Driver's door speaker $\Theta$
A10	GRY/BLK	Front passenger's door speaker ⊖
411		Not used
412	LT GRN	Security (OUT)
A13	GRN/WHT	Security (IN)
14	BLK	Ground (G601)
<b>\</b> 15	GRY/WHT	Left rear speaker ⊝
A16	BRN/WHT	Right rear speaker ⊖

Terminal Wire

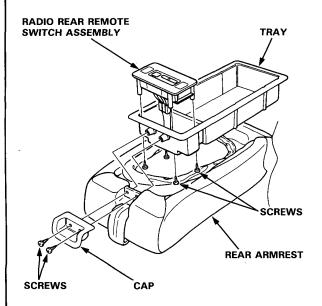
Connects to

B1	RED/GRN	Radio rear remote switch (Power supply)
B2	RED/WHT	Radio rear remote switch (Vol.down)
В3	GRN	Radio rear remote switch (Vol.up)
B4	ORN	Radio rear remote switch (Seek)
B5		Not used

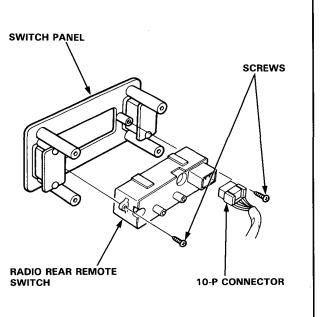


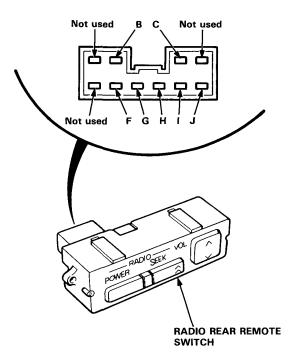
### Radio Rear Remote Switch Removal/Test -

- 1. Pull out the rear armrest, then remove the two screws and the cap.
- 2. Remove the four screws, then remove the radio rear remote switch assembly from the tray.



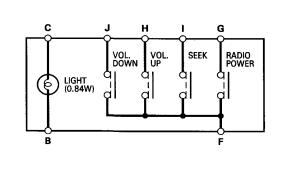
3. Disconnect the 10-P connector and remove the two screws, then remove the radio rear remote switch from the switch panel.





4. Check for continuity between the terminals in each switch position according to the table.

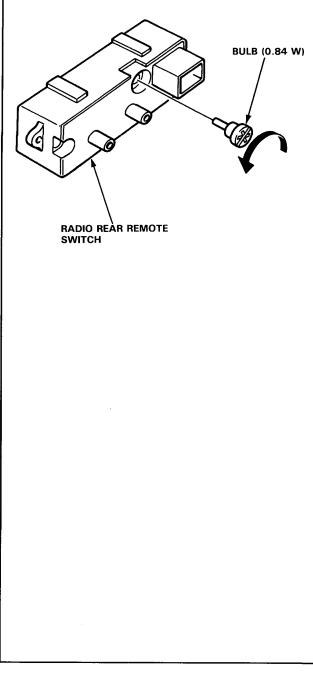
Terminal Switch	в		с	F	G	н	1	J
POWER	0-	0	-0	0-	Ю			
SEEK 🛠	0-	$\odot$	P	0-			Ю	
VOL. (UP) 🔥	0-	0	Ю	0-		Ю		
VOL. (DOWN) V	0-	0	-0	0-				-0



# Stereo Sound System (KQ model)

### - Bulb Replacement

- 1. Remove the radio rear remote switch (see page 23-31).
- 2 Turn the bulb counterclockwise to remove it from the switch, then replace the bulb.



# Ignition System

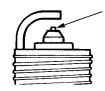
### - Spark Plug Inspection

With Catalytic Converter (Engine type: C32A2 and C32A3)

Make sure that the 1.3 mm (0.051 in.) plug gauge does not fit into the gap of the platinum tip plug. If the gauge fits into the gap, do not attempt to adjust the side electrode. Replace the plug.

#### Electrode Gap:

Standard	1.0–1.1 mm (0.039–0.043 in)
Service Limit	1.3 mm (0.051 in)



Platinum tip plug: Check and confirm that the 1.3 mm (0.051 in) plug gauge does not fit into the gap.

Use only the plugs listed below:

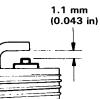
PFR6G-11 (NGK) PZFR6F-11 (NGK) PK20PR-L11 (ND) PKJ20CR-L11 (ND)	For all normal driving
PFR7G-11 (NGK) PK22PR-L11 (ND)	For hot climates or continu- ous high speed driving
PFR5G-11 (NGK) PK16PR-L11 (ND)	For cold climate driving

### Without Catalytic Converter

(Engine type: C32A4 and C32A5)

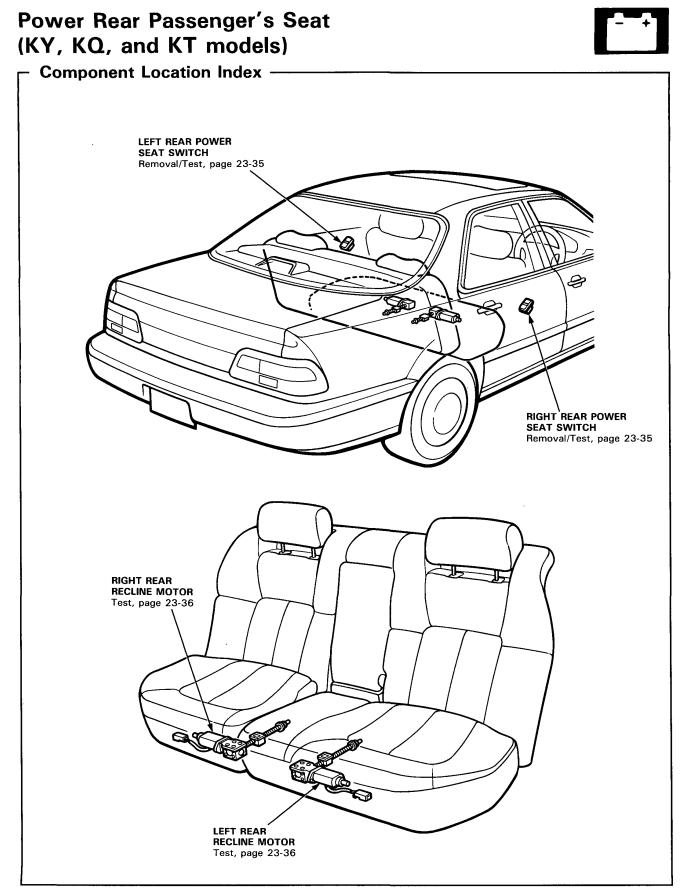
Adjust the gap with a suitable gapping tool.

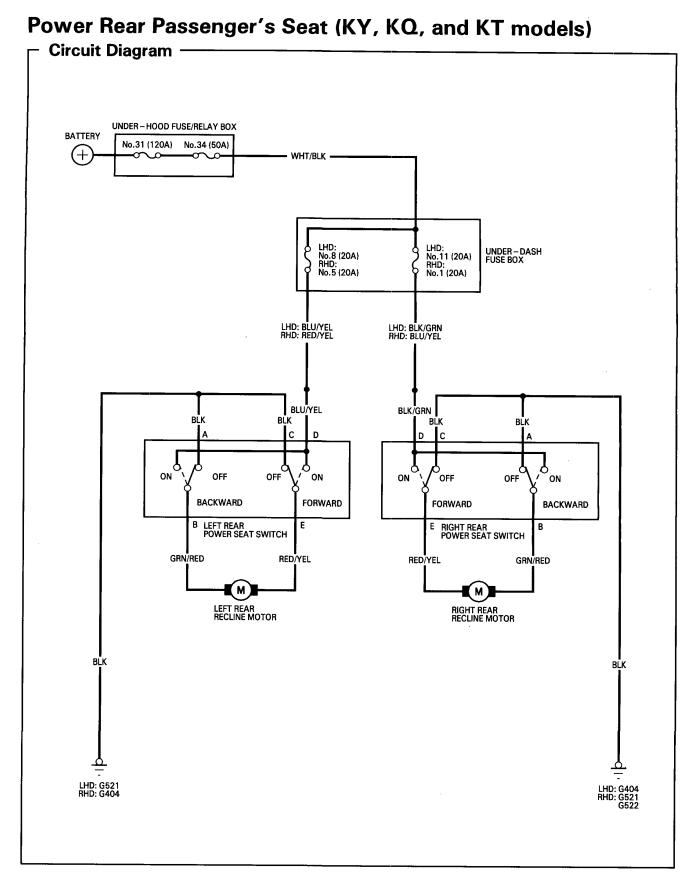
Electrode Gap: 1.0-1.1 mm (0.039-0.043 in)



Use only the plugs listed below:

BKR6E-11 (NGK) K20PR-U11	For all normal driving
BKR7E-11 (NGK) K22PR-U11 (ND)	For hot climates or continu- ous high speed driving
BKR5E-11 (NGK) K16PR-U11 (ND)	For cold climate driving





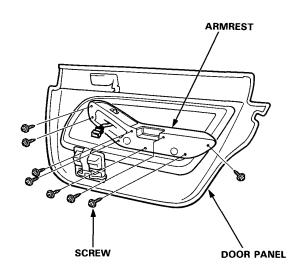
### 23-34



### Switch Removal/Test

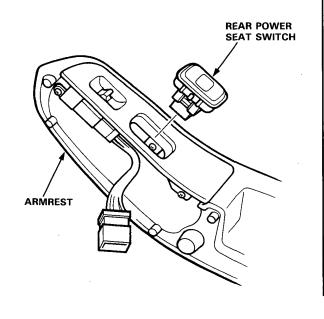
- 1. Remove the rear door panel (see section 20).
- 2. Remove the eight screws, then remove the armrest.

NOTE: Left rear door panel is shown. Right rear door panel is similar.



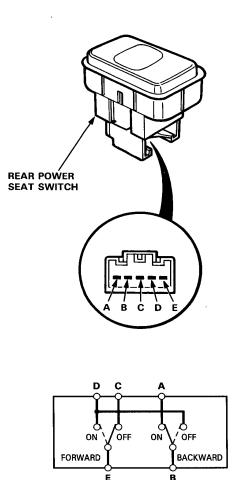
3. Remove the rear power seat switch from the armrest.

NOTE: Left rear armrest is shown. Right rear arm-rest is similar.



4. Check for continuity between the terminals in each switch position according to the table.

Terminal Position	A	В	с	D	E
FORWARD	0—	0		0	-0
NEUTRAL	0	_0	0—		_0
BACKWARD		<u> </u>	0-	-0	0



# Power Rear Passenger's Seat (KY, KQ, and KT models)

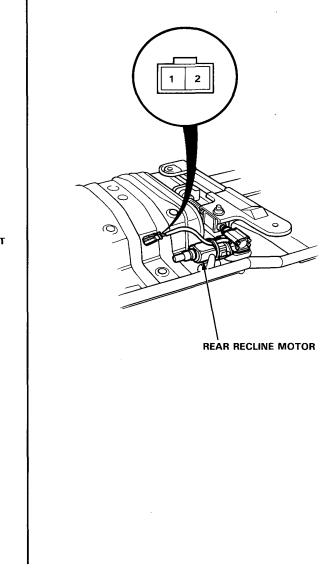
### - Motor Teat -

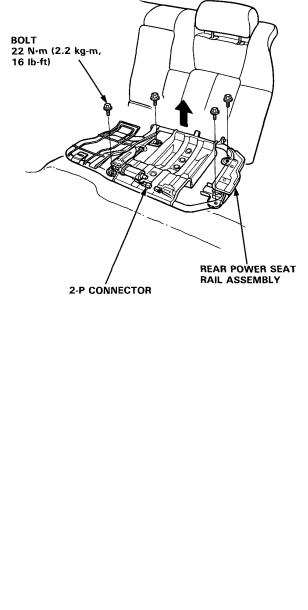
- 1. Remove the rear seat cushion (see section 20).
- 2. Remove the four screws and disconnect the 2-P connector under the rear power seat rail assembly, then remove the rear power seat rail assembly.

NOTE: Left rear power seat rail assembly is shown. Right rear power seat rail assembly is similar. 3. Test the motor in each direction by connecting power and ground according to the table.

Terminal Direction	1	2
FORWARD	Ð	Θ
BACKWARD	θ	$\oplus$

CAUTION: When the motor stops running, disconnect one lead immediately.

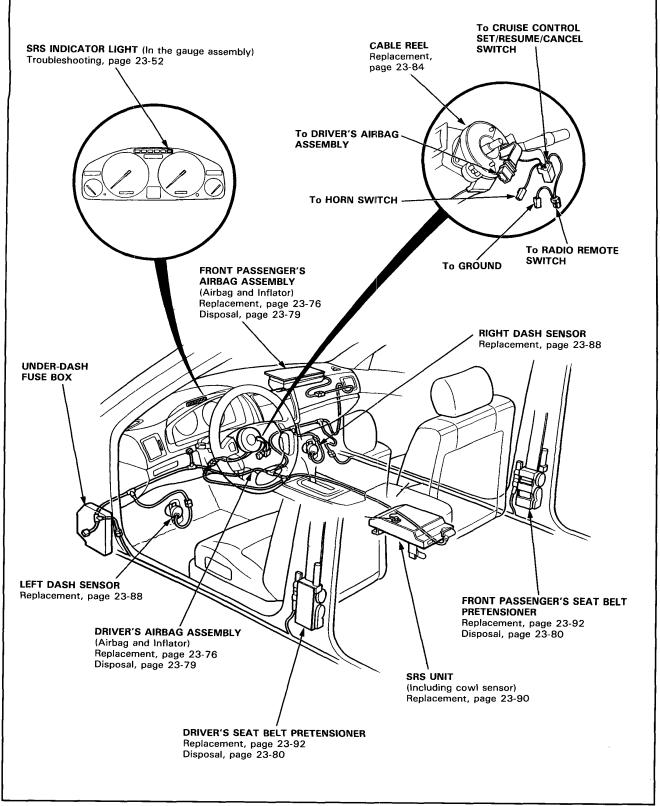




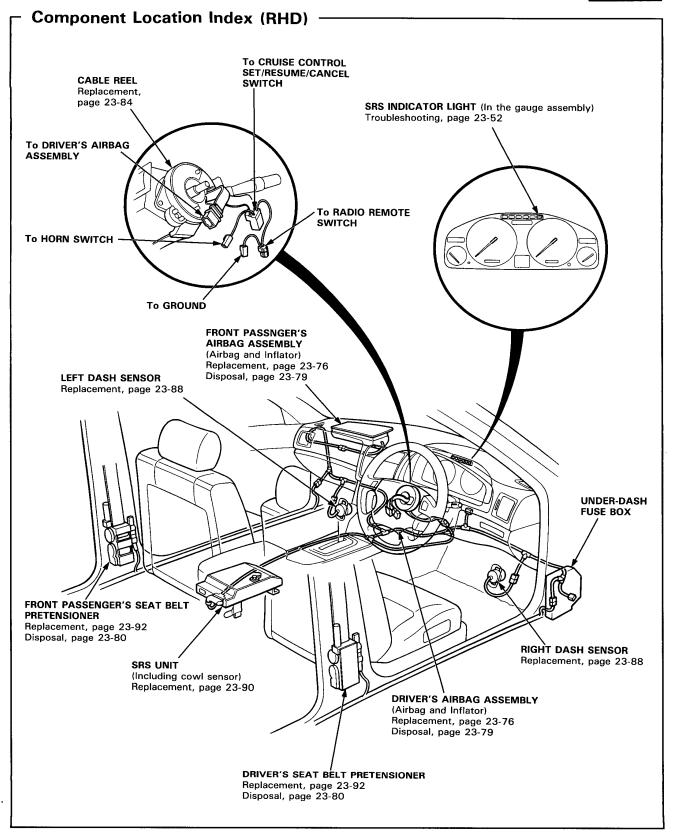
Component Location Index	23-38
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Circuit Diagram	23-41
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Replacement	23-88
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Replacement	23-92
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## Component Location Index (LHD)







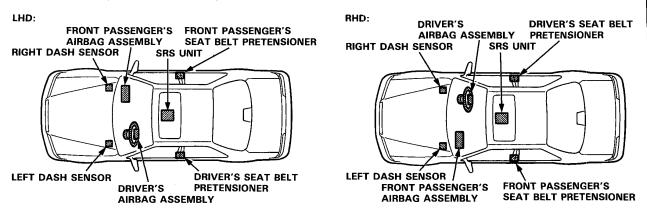
### - Description

#### SRS Airbag System

The SRS is a safety device which, when used in conjunction with the seat belt, is designed to protect the driver in a frontal impact exceeding a certain set limit. The system consists of left and right dash sensors, the SRS unit (including cowl sensor), the cable reel, driver's airbag, and front passenger's airbag

#### Seat Belt Pretensioner

The seat belt pretensioner is linked with the SRS airbags to further increase the effectiveness of the seat belt. In a frontend collision, the pretensioner instantly retracts the belt firmly to secure the occupants in their seats.



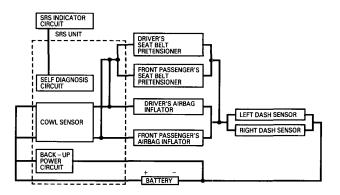
#### Operation

As shown in the diagram below, the left and right dash sensors are connected in parallel. The parallel set of sensors is connected in series to each airbag inflator circuit and the car battery. In addition, a back-up power circuit is connected in parallel with the car battery. The back-up power circuit and the cowl sensor are located inside the SRS unit.

#### For the SRS to operate:

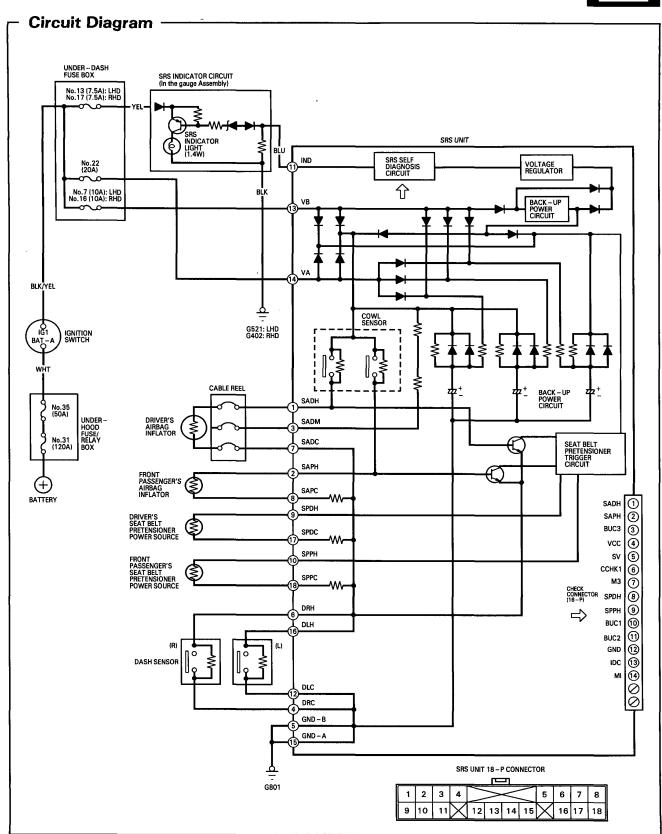
- (1) One or both cowl sensor contacts and one or both dash sensors must activate.
- (2) Electrical energy must be supplied to the airbag inflators by the battery, or the back-up power circuit if the battery voltage is too low.
- (3) Airbag and seat belt pretensioner charges must be released. Then the airbags will deploy and the pretensioners will activate.

It takes about 0.1 second from the beginning of the airbags' deployment until they are completely deflated.

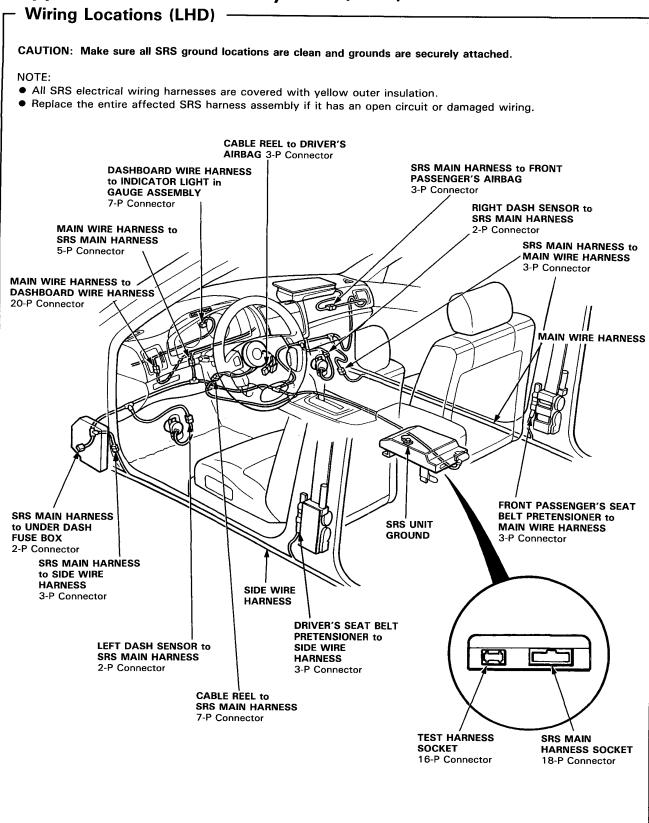


#### Self-diagnosis system

A self-diagnosis circuit is built into the SRS unit; when the ignition switch is turned ON, the SRS indicator light comes on and goes off after about six seconds if the system is operating normally. If the light does not come on, or does not go off after six seconds, or if it comes on while driving, it indicates an abnormality in the system. The system must be inspected and repaired as soon as possible.



- + SRS

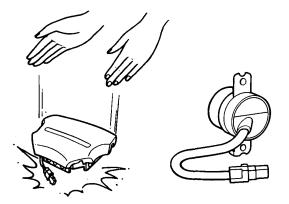




#### Wiring Locations (RHD) -CAUTION: Make sure all SRS ground locations are clean and grounds are securely attached. NOTE: • All SRS electrical wiring harnesses are covered with yellow outer insulation. • Replace the entire affected SRS harness assembly if it has an open circuit or damaged wiring. CABLE REEL to DRIVER'S **AIRBAG 3-P Connector** SRS MAIN HARNESS to FRONT PASSENGER'S AIRBAG DASHBOARD WIRE HARNESS 3-P Connector to INDICATOR LIGHT in GAUGE ASSEMBLY 7-P Connector LEFT DASH SENSOR to SRS MAIN HARNESS MAIN WIRE HARNESS to 2-P Connector DASHBOARD WIRE HARNESS SRS MAIN HARNESS to 20-P Connector MAIN WIRE HARNESS 3-P Connector **RIGHT DASH SENSOR to** SRS MAIN HARNESS MAIN WIRE HARNESS 2-P Connector FRONT PASSENGER'S SEAT SRS MAIN HARNESS to UNDER DASH **BELT PRETENSIONER to** MAIN WIRE HARNESS FUSE BOX 3-P Connector 2-P Connector SRS MAIN HARNESS SRS UNIT GROUND to SIDE WIRE HARNESS 3-P Connector MAIN WIRE HARNESS to SRS MAIN HARNESS SIDE WIRE 5-P Connector HARNESS DRIVER'S SEAT BELT **PRETENSIONER** to SIDE WIRE HARNESS CABLE REEL to 3-P Connector SRS MAIN HARNESS 7-P Connector **TEST HARNESS** SRS MAIN SOCKET HARNESS SOCKET **18-P Connector** 16-P Connector

### General Precautions

- Carefully inspect any SRS part before you install it. Do not install any part that shows signs of being dropped or improperly handled, such as dents, cracks or deformation:
  - Airbag assemblies.
  - Dash sensors.
  - Cable reel.
  - SRS unit.
  - Seat belt pretensioners.



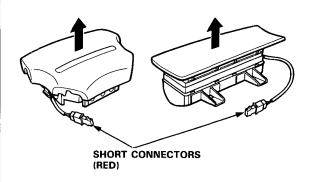
- Use only a digital circuit tester to check the system. Using an analog circuit tester may cause an accidental deployment and possible injury.
- Do not install used SRS parts from another car. When repairing, use only new SRS parts.
- Except when performing electrical inspections, always disconnect both the negative cable and positive cable at the battery before beginning work.
- Replacement of the combination light, wiper/washer switches, and cruise control switch can be done without removing the steering wheel.

### Airbag Handling and Storage

Do not try to disassemble the airbag assembly. It has no serviceable parts. Once an airbag has been operated (deployed), it cannot be repaired or reused.

For temporary storage of the airbag assembly during service, please observe the following precautions:

• Store the removed airbag assembly with the pad surface up.



**A** WARNING If the airbag is improperly stored face down, accidental deployment could propel the unit with enough force to cause serious injury.

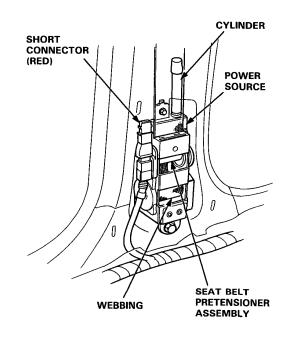
 Store the removed airbag assembly on a secure flat surface away from any high heat source (exceeding 100°C/212°F) and free of any oil, grease, detergent or water.

CAUTION: Improper handling or storage can internally damage the airbag assembly, making it inoperative. If you suspect the airbag assembly has been damaged, install a new unit and refer to the Deployment/Disposal Procedures for disposing of the damaged airbag.



### Seat Belt Pretensioner Handling and Storage

Do not try to disassemble the seat belt pretensioner assembly. It has no serviceable parts. Once an seat belt pretensioner has been operated, it cannot be repaired or reused.



 Store the removed seat belt pretensioner assembly on a secure flat surface away from any high heat source (exceeding 100°C/212°F) and free of any oil, grease, detergent or water.

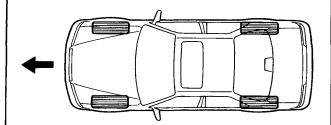
- Follow these precautions below during removal of a pretensioner.
  - Install its short connector (RED) as soon as the pretensioner connector is disconnected.
  - Use only the test equipment specified in the Electrical section.
  - Do not disassemble the pretensioner or allow any impact to it.

For proper disposal see page 23-79.

### - Steering-related Precautions

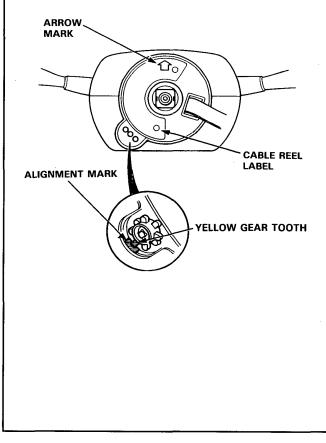
### **Steering Wheel and Cable Reel Alignment**

NOTE: To avoid misalignment of the steering wheel or airbag on reassembly, make sure the wheels are turned straight ahead before removing the steering wheel.



Rotate the cable reel clockwise until it stops. Then rotate it counterclockwise (approximately two turns) until:

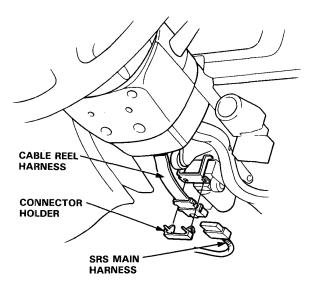
- The yellow gear tooth lines up with the alignment mark on the cover.
- The arrow mark on the cable reel label points straight up.



### **Steering Column Removal**

#### CAUTION:

- Before removing the steering column, first disconnect the connector between the cable reel and the SRS main harness.
- If the steering column is going to be removed without dismounting the steering wheel, lock the steering by turning the ignition key to 0-LOCK position or remove the key from the ignition so that the steering wheel will not turn.



Do not replace the original steering wheel with any other design, since it will make it impossible to properly install the airbag (only use genuine Honda replacement parts).

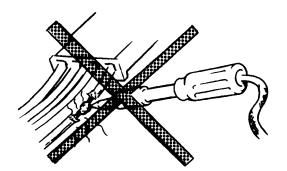
After reassembly, confirm that the wheels are still turned straight ahead and that the steering wheel spoke angle is correct. If minor spoke angle adjustment is necessary, do so only by adjusting of the tie-rods, not by removing and repositioning the steering wheel.



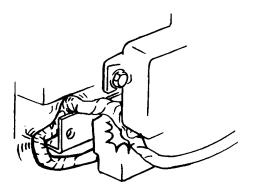


Never attempt to modify, splice or repair SRS wiring.

NOTE: SRS wiring can be identified by special yellow outer protective covering.



 Be sure to install the harness wires so that they are not pinched or interfering with other car parts.

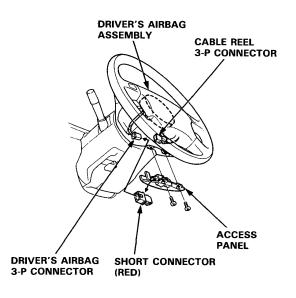


 Make sure all SRS ground locations are clean and all ground terminals are tightly fastened for optimum metal-to-metal contact.Poor grounding can cause intermittent problems that are difficult to diagnose.

#### Connecting the short connectors

CAUTION: Before disconnecting the airbag connector, be sure to completely discharge the capacitor in the backup circuit (by turning off the ignition switch and allowing three minutes to elapse) to prevent a malfunction of the seat belt pretensioners.

- 1. Disconnect the battery negative cable, then disconnect the positive cable.
- 2. Remove the access panel from the steering wheel, then remove the short connector (RED) from the panel.

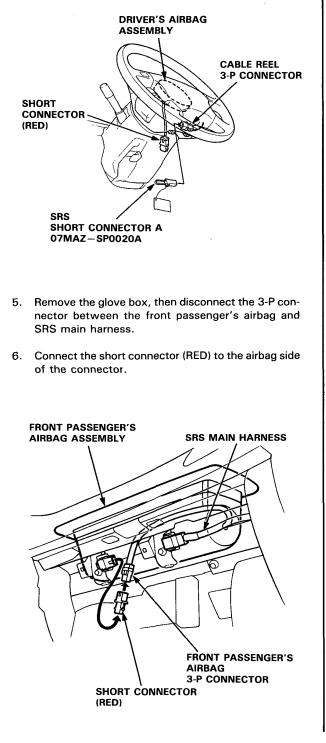


3. Disconnect the 3-P connector between the driver's airbag and the cable reel, then connect the short connector (RED) to the airbag side of the connector.

(cont'd)

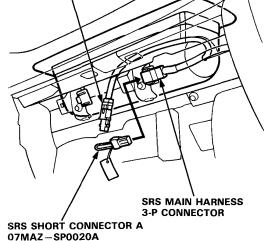
### Wiring Precaution (cont'd) -

4. Connect an SRS short connector A (special tool) to the cable reel side of the connector.



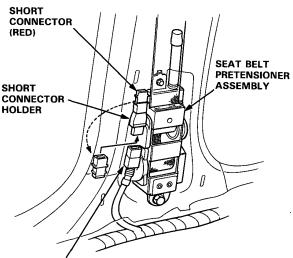
7. Connect another SRS short connector A (special tool) to the airbag side of the connector.

FRONT PASSENGER'S AIRBAG CONNECTOR/SHORT CONNECTOR (RED)



8. Remove the right "B" pillar trim panel.

9. Remove the short connector (RED) from the short connector holder.



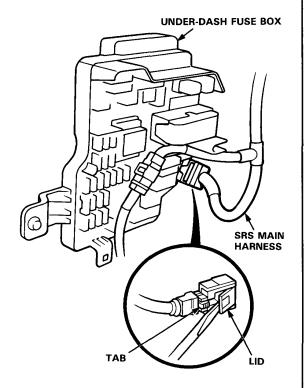
RHD: SIDE WIRE HARNESS 3-P CONNECTOR LHD: MAIN WIRE HARNESS 3-P CONNECTOR

- 10. Disconnect the seat belt pretensioner 3-P connector, then connect the short connector (RED) to the pretensioner side of the connector.
- 11. Repeat steps 8, 9, and 10 on the left side.
- 12. After completing repair work, be sure to remove the short connectors and reconnect all SRS connectors.

# Disconnecting the SRS Connector at the Fuse Box

CAUTION: Avoid breaking the connector; it's double-locked.

First lift the connector lid with a thin screwdriver, then press the connector tab down and pull the connector out.



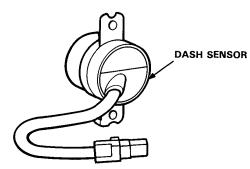
To reinstall the connector, push it into position until it clicks, then close its lid.

### - Sensor Inspection

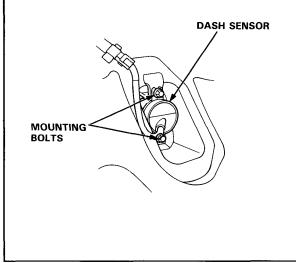
CAUTION: Take extra care when painting or doing body work on any part of the dashboard lower panel. Avoid direct exposure of the sensors or wiring to heat guns, welding or spraying equipment.

#### A WARNING

- Disconnect both the negative and positive battery cables.
- Connect the short connectors before working around the dashboard lower panel or the dash sensors.
- After any degree of frontal body damage, inspect both dash sensors. Replace a sensor if there are any signs of dents, cracks or deformation.



• Be sure the sensors are installed securely.



### Inspection After Deployment

After a collision in which the airbags and seat belt pretensioners were deployed, inspect the following:

- 1. Inspect the dash sensors for physical damage. If the sensors are damaged, replace them.
- 2. Inspect all the SRS wire harnesses. Replace, don't repair, any damaged harness.
- 3. Inspect the cable reel for heat damage. If there is any damage, replace the cable reel.
- 4. After the car is completely repaired, turn the ignition switch on. If the SRS indicator light comes on for about six seconds and then goes off, the SRS is OK. If the indicator light does not function properly, go to SRS Troubleshooting.

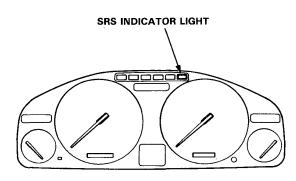


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## Troubleshooting

### Self-diagnosis Function

The SRS unit includes a self-diagnosis function. If there is a failure in the sensors, SRS unit, inflators, or their circuits, the SRS indicator light in the gauge assembly comes ON.



As a system check the SRS indicator light also comes on when the ignition is first turned to the II position. If the light goes off after approximately six seconds, the system is OK.

If the SRS indicator light remains on (or fails to come on in the system check mode) one of the SRS components (or the wiring/connectors in-between) is faulty.

### **Troubleshooting Precautions**

- Always use the test harness. Do not use test probes directly on component connector terminals or wires; you may damage them or the SRS unit.
- When connecting any of the test harnesses to the system, push the connectors straight-in; do not bend the connector terminals.
- Before disconnecting the airbag connectors, turn off the ignition switch and wait for at least three minutes to let the capacitor in the back-up circuit discharge. This will prevent a malfunction of the seat belt pretensioners.
- Before disconnecting any part of the SRS wire harness, connect the short connectors (RED) to the airbags and both seat belt pretensioners. After connecting the short connectors to the airbags, immediately connect an SRS short connector "A" (special tool) to the cable reel connector (for the driver's airbag), and another to the SRS main harness connector (for the passenger's airbag). This will prevent any static electricity from triggering the seat belt pretensioners before you disconnect them (see page 23-54).

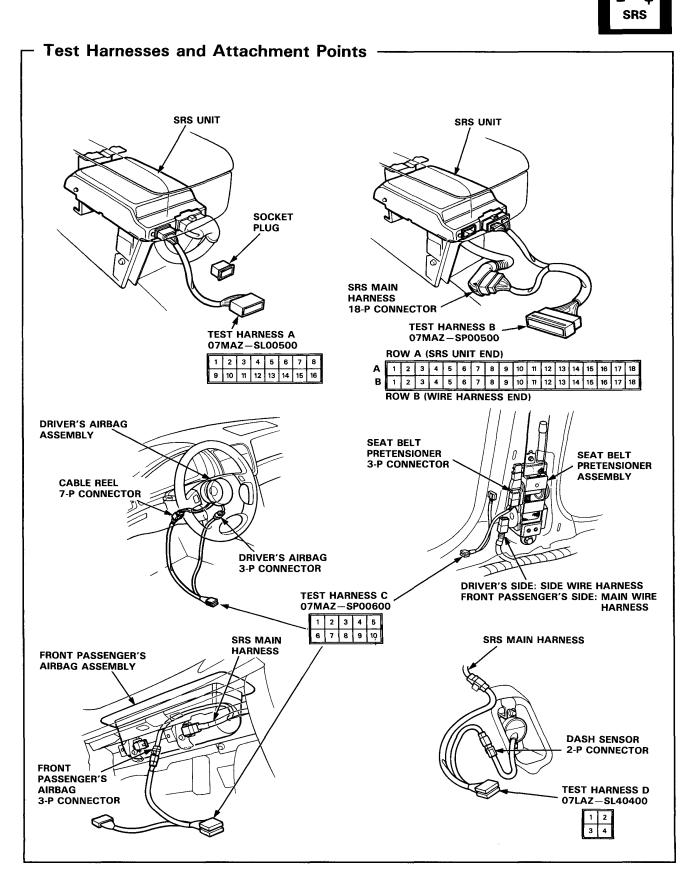
### **SRS Indicator Light Troubleshooting**

#### **Possible conditions:**

- 1. SRS indicator light does not come on at all see page 23-56.
- SRS indicator light stays on constantly see page 23-60.
- SRS indicator light comes on in combination with a failure of another electrical system (brake system light, check engine light etc.). Check for damage/ corrosion at the under-dash fuse box connector.

### NOTE:

- Before starting the applicable troubleshooting, check the condition of all SRS connectors and ground points.
- If the fault is not found after completing the applicable troubleshooting, substitute a known-good SRS unit and check whether the SRS indicator light goes off. If it does, the original SRS unit must be faulty; replace it.

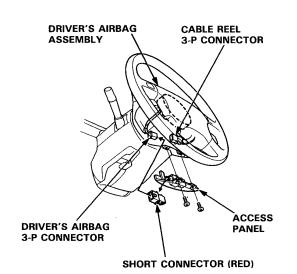


## - Connecting Short Connectors

Connect the short connectors as follows whenever you are working near SRS wiring or components.

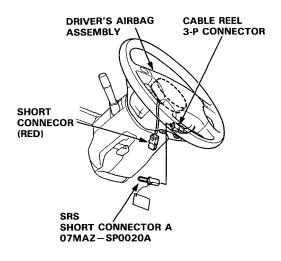
### CAUTION:

- Before disconnecting the airbag connectors, turn off the ignition switch and wait for at least three minutes to let the capacitor in the back-up circuit discharge. This will prevent a malfunction of the seat belt pretensioners.
- After completing repair work, be sure to remove both short connectors.
- 1. Disconnect the battery negative cable, then disconnect the positive cable.
- 2. Remove the access panel from the steering wheel, then remove the short connector (RED) from the panel.

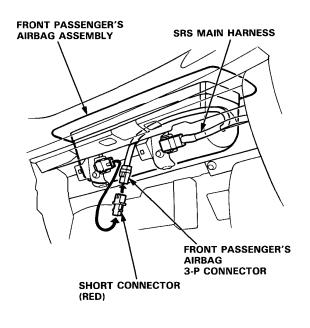


3. Disconnect the 3-P connector between the driver's airbag and the cable reel, then connect the short connector (RED) to the airbag side of the connector.

4. Connect an SRS short connector A (special tool) to the cable reel side of the 3-P connector.

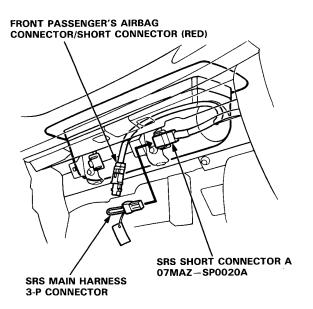


- 5. Remove the glove box, then disconnect the connector between the front passenger's airbag and SRS main harness.
- 6. Connect the short connector (RED) to the airbag side of the 3-P connector.



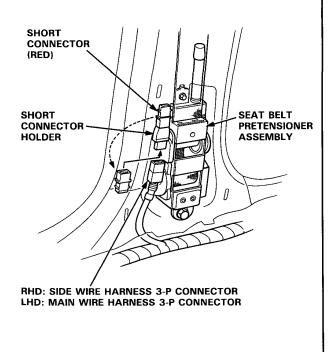


7. Connect another SRS short connector A (special tool) to the SRS main harness side of the 3-P connector.

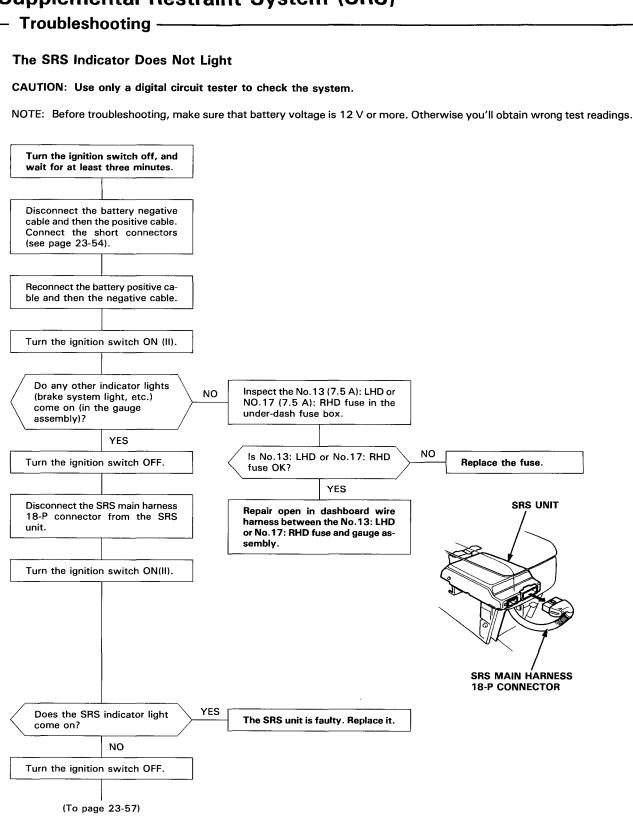


8. Remove the right "B" pillar trim panel.

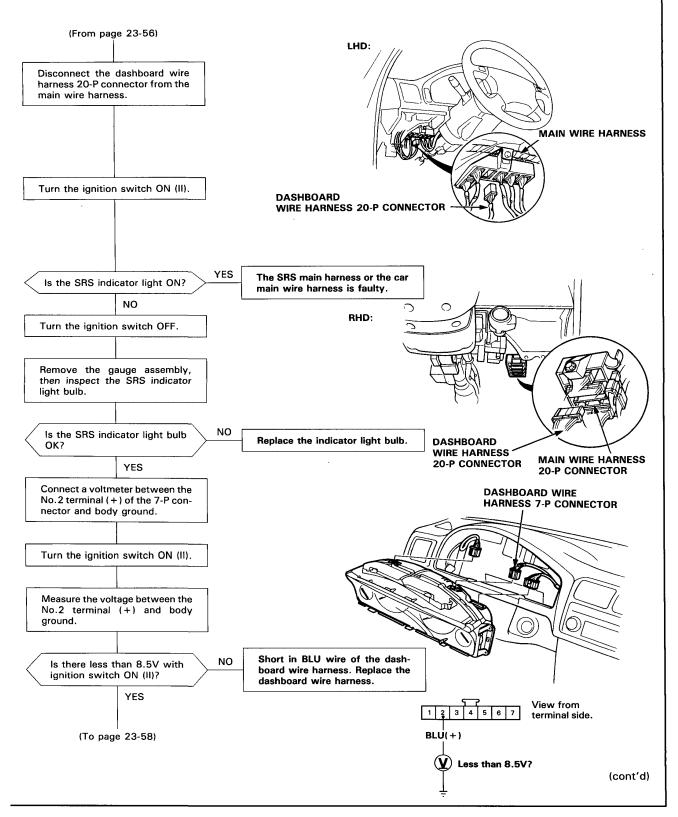
- 9. Remove the short connector (RED) from the short connector holder.
- Disconnect the seat belt pretensioner 3-P connector, then connect the short connector (RED) to the pretensioner side of the connector.

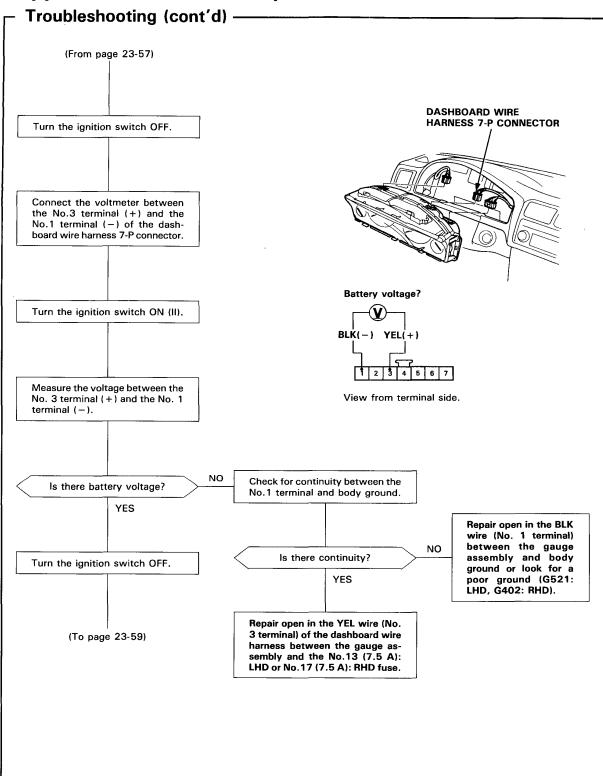


- 11. Repeat steps 8, 9, and 10 on the left side.
- 12. After completing repair work, be sure to remove the short connectors and reconnect all SRS connectors.

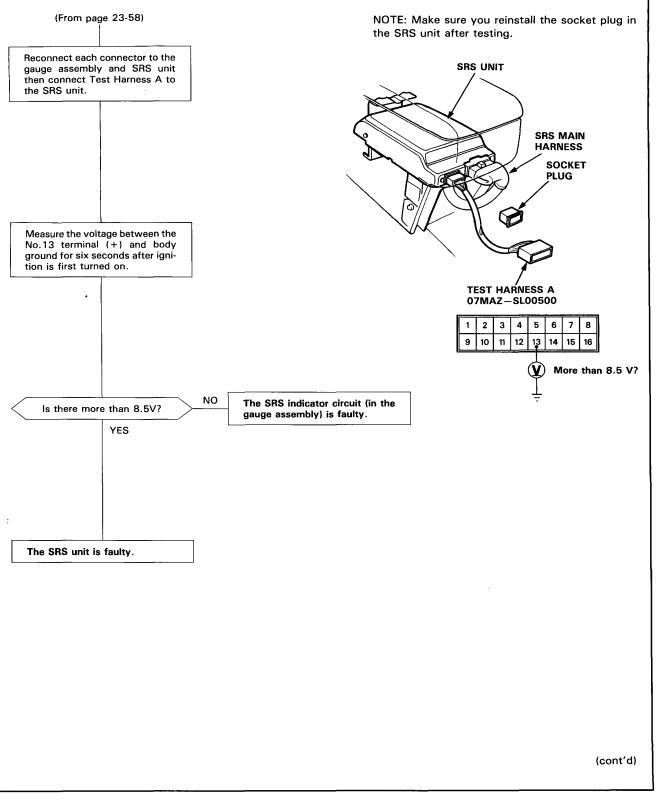


## - + SRS





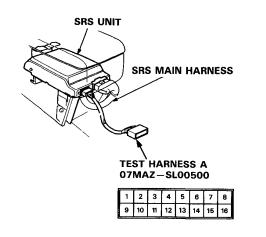




## Troubleshooting (cont'd)

NOTE: Before troubleshooting, make sure that battery voltage is 12 V or more. Otherwise you'll obtain wrong test readings.

- 1. Make a photocopy of the chart on page 23-61.
- 2. Connect Test Harness A to the SRS unit as shown.



- 3. Turn the ignition switch ON (II).
  - Voltages in the chart assume the car's "battery voltage" is about 12 volts. Less than 12 volts will result in different or possibly false readings.
  - Do not disconnect the airbags from the circuit when checking SRS unit voltages.
- 4. First, check for voltage between Test Harness Terminal No.12 and ground.
  - If voltage is indicated, there is a poor ground (see page 23-75).
  - If no voltage is indicated, continue with checking all the other terminals.

- 5. Record your voltage readings, for each terminal, in the row of blank boxes near the top of the chart.
- 6. Compare each reading with the voltage ranges listed in the column below it. If the reading is within a range, circle that range.
  - If you circled all the Failure Mode ranges across any row, check the car for the Probable Failure Mode listed at the end of the row. (Refer to the letter for that mode on the following pages).
  - If you did not circle all the ranges across any row, replace the SRS unit with a known-good unit, and retest.
    - If all your voltage readings are now Normal, replace the original SRS unit.
    - If your voltage readings are still not Normal but they don't match a complete row of Failure Mode ranges, check the condition of the SRS connectors shown in the system diagram on page 23-42.

Test Harness Terminal	1 SADH	2 SAPH	3 BUC3	4 VCC	5 SV	6 ССНК 1	7 M3	8 SPDH	9 SPPH	10 BUC1	11 BUC2	12 GND	13 IDC	14 MI	-	_	
Normal Voltage	5.1 -7.0	5.1 -7.0	10.5 14.5	4.5 5.5	12.0 14.0	10.5 14.5	10.5 14.5	5.1 -7.0	5.1 -7.0	10.5 14.5	10.5 —14.5	0	8.5 13.0	10.5 14.5	_	_	Probable Failure Mode
Your Voltage Reading															-	_	
Failure Mode Voltage	3.0 -5.0	3.0 -5.0	10.5 14.5	4.5 -5.5	12.0 14.0	10.5 14.5	10.5 14.5	3.0 5.0	3.0 5.0	10.5 14.5	10.5 14.5	0	2.0 8.5	10.5 14.5	_	-	A Open in one cowl sensor contact.
	0	0	10.5 14.5	4.5 5.5	12.0 14.0	10.5 14.5	10.5 14.5	0	0	10.5 14.5	10.5 —14.5	0	2.0 -8.5	10.5 14.5	_		<ul> <li>Short to driver's or passenger's inflator (body ground).</li> <li>Short to driver's or passenger's seat belt pretensioner (body ground).</li> <li>Short in dash sensors.</li> <li>Open in both cowi sensor contacts.</li> </ul>
	10.5 14.5	10.5 14.5	10.5 14.5	4.5 -5.5	12.0 14.0	10.5 14.5	10.5 14.5	10.5 14.5	10.5 14.5	10.5 14.5	10.5 14.5	0	2.0 -8.5	10.5 14.5	ł	-	C Short in one cowl sensor contact or open in both dash sensors.
	7.1 -9.5	7.1 9.5	10.5 	4.5 -5.5	12.0 14.0	10.5 14.5	10.5 14.5	7.1 9.5	7.1 -9.5	10.5 14.5	10.5 14.5	0	2.0 -8.5	10.5 14.5	-	_	Open in one dash sensor.
	10.5 	10.5 	10.5 14.5	4.5 -5.5	12.0 14.0	10.5 14.5	10.5 	10.5 	10.5 	10.5 	10.5 14.5	0	2.0 -8.5	10.5 14.5	_	_	Open in driver's E airbag inflator or cable reel.
	10.5 14.5	10.5 14.5	10.5 14.5	4.5 -4.5	12.0 14.0	10.5 14.5	10.5 14.5	10.5 14.5	10.5 14.5	10.5 14.5	10.5 14.5	0	2.0 -8.5	10.5 14.5	_	-	Open in front F passenger's airbag inflator.
	5.1 -7.0	5.1 -7.0	10.5 14.5	4.5 -5.5	12.0 14.0	10.5 ~14.5	10.5 14.5	o	5.1 7.0	10.5 14.5	10.5 14.5	o	2.0 8.5	10.5 14.5	_	-	Open in driver's seat belt pretensioner.
	5.1 -7.0	5.1 7.0	10.5 	4.5 5.5	12.0 14.0	10.5 14.5	10.5 14.5	5.1 - 7.0	0	10.5 14.5	10.5 14.5	0	2.0 -8.5	10.5 14.5	-	-	Open in front passenger's seat belt pretensioner.
	10.5 	10.5 	10.5 	4.5 5.5	12.0 14.0	10.5 14.5	10.5 14.5	10.5 14.5	10.5 	10.5 14.5	10.5 14.5	o	2.0 -8.5	10.5 14.5	_	_	Short in seat belt H pretensioner trigge transistor.
	4.0 -7.0	4.0 -7.0	8.5 14.5	0	0	8.5 14.5	8.5 14.5	4.0 7.0	4.0 -7.0	8.5 14.5	8.5 14.5	o	2.0 -8.5	8.5 14.5	_	-	Blown SRS fuse (No. 7 [10 A]: I LHD, No. 16 [10 A]: RHD) or open in the wire.
	5.1 -7.0	5.1 -7.0	10.5 14.5	4.5 5.5	12.0 14.0	10.5 14.5	10.5 14.5	5.1 -7.0	5.1 -7.0	10.5 14.5	10.5 14.5	o	0 (8.5 13.0)	10.5 14.5	-	-	Short (or open) in J SRS indicator wire harness.

### NOTE: Do not disconnect the airbags when checking SRS unit voltages.

(cont'd)

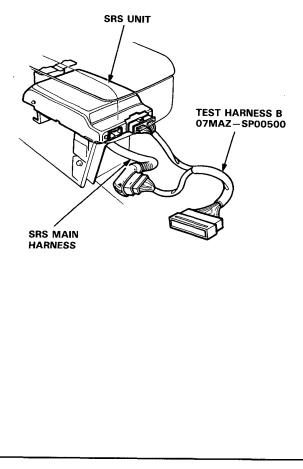
## Troubleshooting (cont'd) -

Mode A: Open in one cowl sensor contact.

The SRS unit is faulty. Substitute a known-good SRS unit and recheck the voltages according to the chart on page 23-61.

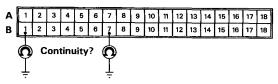
### Mode B:

- Short to driver's or passenger's airbag inflator (body ground).
- Short to driver's or passenger's seat belt pretensioner (body ground).
- Short in dash sensor.
- · Open in both cowl sensor contacts.
- Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- 2. Connect Test Harness B between the SRS unit and SRS main harness 18-P connector.

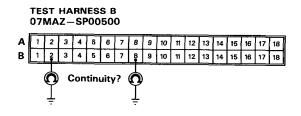


3. Reconnect the driver's airbag connector, then check continuity between the B1 terminal and body ground, and between the B7 terminal and body ground.

#### TEST HARNESS B 07MAZ-SP00500

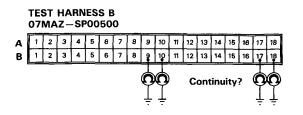


- If there is continuity at either terminal, go to step 7.
- If there is no continuity at either terminal, go to step 4.
- 4. Reconnect the front passenger's airbag connector, then check continuity between the B2 terminal and body ground, and between the B8 terminal and body ground.

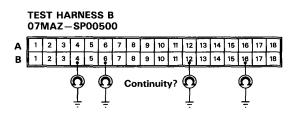


- If there is continuity at either terminal, go to step 11.
- If there is no continuity at either terminal, go to step 5.

5. Reconnect the seat belt pretensioner 3-P connector, then check continuity between body ground and each terminal of both seat belt pretensioners.

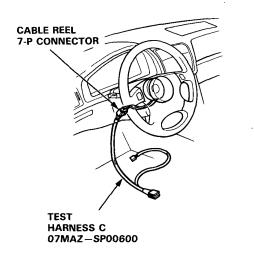


- If there is continuity at any of the terminals, go to step 13.
- If there is no continuity at any of the terminals, go to step 6.
- 6. Check continuity between body ground and each terminal of both dash sensors.

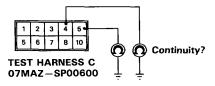


- If there is continuity at any of the terminals, go to step 17.
- If there is no continuity at any of the terminals, go to step 18.

 Disconnect the cable reel 7-P connector from the SRS main harness, then connect Test Harness C only to the cable reel side of the 7-P connector.



8. Check continuity between the No.4 terminal and body ground, and between the No.5 terminal and body ground.

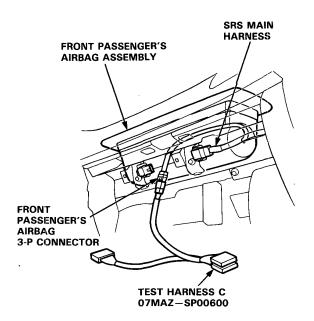


- If there is continuity at either terminal, go to step 9.
- If there is no continuity at either terminal, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-61.

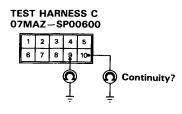
(cont'd)

# Troubleshooting (cont'd) -9. Disconnect the driver's airbag 3-P connector from the cable reel, then connect Test Harness C to the driver's airbag 3-P connector. CABLE REEL 7P CONNECTOR DRIVER'S AIRBAG **3-P CONNECTOR** TEST HARNESS C 07MAZ-SP00600 10. Check continuity between the No.9 terminal and body ground, and between the No.10 terminal and body ground. **TEST HARNESS C** 07MAZ-SP00600 2 3 8 Continuity? If there is continuity at either terminal, the driver's airbag inflator is faulty. Replace it and recheck the voltages according to the chart on page 23-61. • If there is no continuity at either terminal, the cable reel is faulty. Replace it and recheck the voltages according to the chart on page 23-61.

Disconnect the front passenger's airbag 3-P connector from the SRS main harness, then connect Test Harness C to the airbag side of the connector.



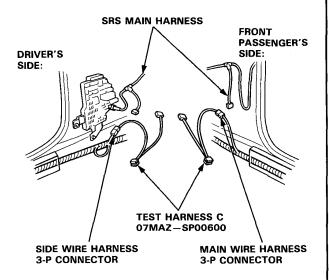
12. Check continuity between the No.9 terminal and body ground, and between the No.10 terminal and body ground.



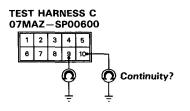
- If there is continuity at either terminal, the front passenger's airbag inflator is faulty. Replace it and recheck the voltages according to the chart on page 23-61.
- If there is no continuity at either terminal, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-61.



13. Disconnect the connector between the SRS main harness and the side wire harness 3-P connector (driver's side), and between the SRS main harness and the car main wire harness 3-P connector (front passenger's side). First, connect Test Harness C to the side wire harness side of the driver's pretensioner 3-P connector, and check continuity, then connect it to the car main wire harness side of the front passenger's pretensioner 3-P connector, and check continuity again.

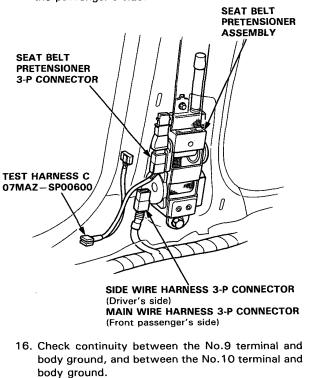


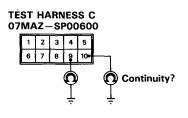
14. Check continuity between the No.9 terminal and body ground, and between the No.10 terminal and body ground.



- If there is continuity at either terminal, go to step 15.
- If there is no continuity at either terminal, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-61.

15. Disconnect the 3-P connector from the driver's and front passenger's seat belt pretensioners, then connect Test Harness C to the seat belt pretensioner side of the connector, first on the driver's side, then on the passenger's side.



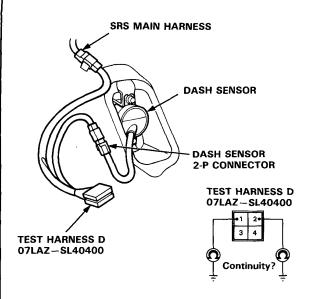


- If there is continuity at either terminal, the seat belt pretensioner is faulty. Replace it and recheck the voltages according to the chart on page 23-61.
- If there is no continuity at either terminal, the side wire harness (driver's side) or the car main wire harness (front passenger's side) is faulty. Replace the faulty harness and recheck the voltages according to the chart on page 23-61.

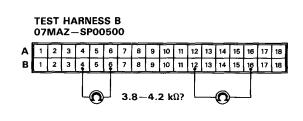
(cont'd)

## Troubleshooting (cont'd) -

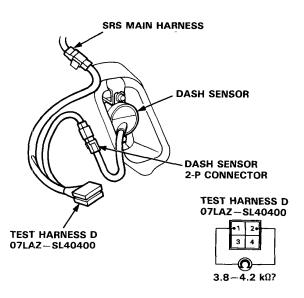
17. Connect Test Harness D between the dash sensor and SRS main harness 2-P connector. Check continuity between the No.1 terminal and body ground, and between the No.2 terminal and body ground.



- If there is continuity at either terminal, the dash sensor is faulty. Replace it and recheck the voltages according to the chart on page 23-61.
- If there is no continuity at either terminal, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-61.
- Check the resistance between the left dash sensor terminals B12 and B16, and between the right dash sensor terminals B4 and B6.



- If resistance is  $3.8 4.2 \text{ k}\Omega$  for both sensors, the SRS unit is faulty. Substitute a known-good SRS unit and recheck the voltages according to the chart on page 23-61.
- If resistance is less than 3.8 kΩ for either sensor, go to step 19.
- 19. Connect Test Harness D between the dash sensor and SRS main harness 2-P connector. Check the resistance between the No.1 terminal and No.2 terminal.



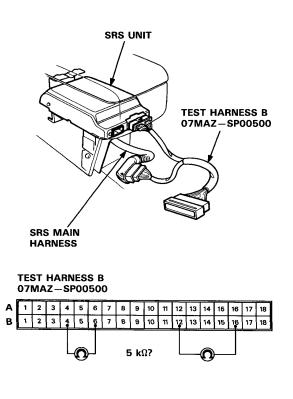
- If resistance is 3.8-4.2 kΩ, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-61.
- If resistance is less than 3.8 kΩ, the dash sensor is faulty. Replace it and recheck the voltages according to the chart on page 23-61.



Mode C: Short in one cowl sensor contact, or open in both dash sensors.

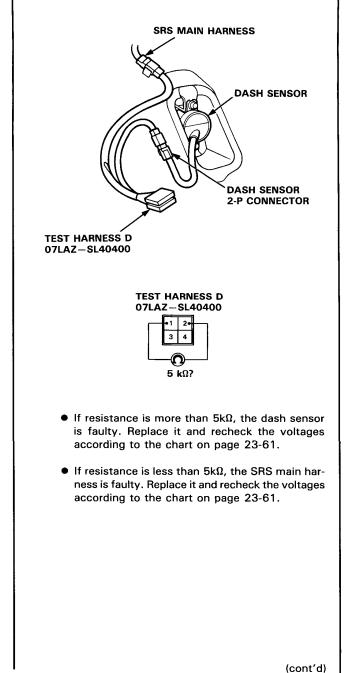
Mode D: Open in one dash sensor.

- 1. Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- Connect the Test Harness B between the SRS unit and the SRS main harness 18-P connector. Check the resistance between the left dash sensor terminals B12 and B16, and between the right dash sensor terminals B4 and B6.



- If resistance is more than 5 kΩ for either set of terminals, go to step 3.
- If resistance is less than 5 kΩ for both sets of terminals, the SRS unit is faulty. Substitute a known-good SRS unit and recheck the voltages according to the chart on page 23-61.

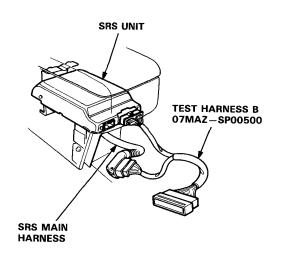
3. Connect Test Harness D between the dash sensor and SRS main harness 2-P connector. Check the resistance between the No.1 terminal and No.2 terminal.



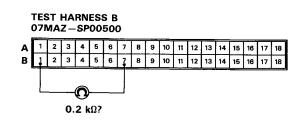
## Troubleshooting (cont'd) -

Mode E: Open in driver's airbag inflator or cable reel.

- Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- 2. Connect Test Harness B between the SRS unit and the SRS main harness 18-P connector.

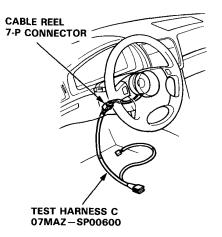


3. Reconnect the driver's airbag connector, then measure the resistance between the B1 and the B7 terminals.

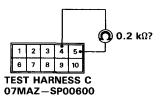


- If resistance is more than 0.2 k $\Omega$ , go to step 4.
- If resistance is less than 0.2 kΩ, the SRS unit is faulty. Substitute a known-good SRS unit and recheck the voltages according to the chart on page 23-61.

4. Disconnect the cable reel 7-P connector from the SRS main harness, then connect Test Harness C only to the cable reel side of the 7-P connector.



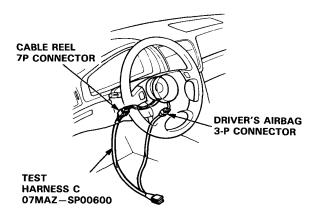
5. Measure the resistance between the No.4 terminal and the No.5 terminal.



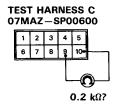
- If resistance is more than 0.2 kΩ, go to step 6.
- If resistance is less than 0.2 kΩ, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-61.



6. Disconnect the driver's airbag 3-P connector from the cable reel, then connect Test Harness C to the driver's airbag 3-P connector.



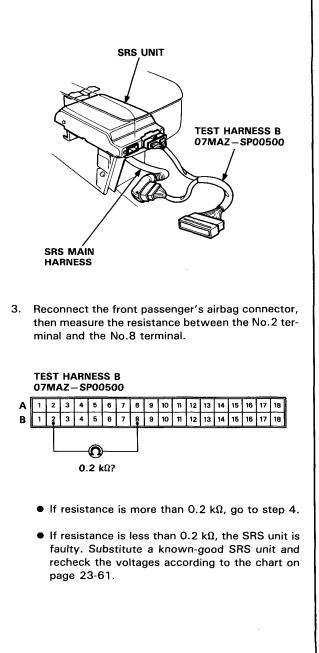
7. Measure the resistance between the No.9 terminal and the No.10 terminal.



- If resistance is more than 0.2 kΩ, the driver's airbag inflator is faulty. Replace the airbag assembly and recheck the voltages according to the chart on page 23-61.
- If resistance is less than  $0.2 k\Omega$ , the cable reel is faulty. Replace it and recheck the voltages according to the chart on page 23-61.

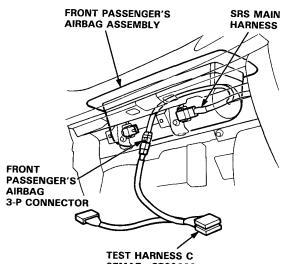
### Mode F: Open in front passenger's airbag inflator.

- 1. Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- 2. Connect Test Harness B between the SRS unit and SRS main harness 18-P connector.



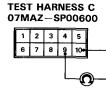
## Troubleshooting (cont'd)

4. Disconnect the front passenger's airbag 3-P connector from the SRS main harness, then connect Test Harness C to the front passenger's airbag side of the connector.



07MAZ-SP00600

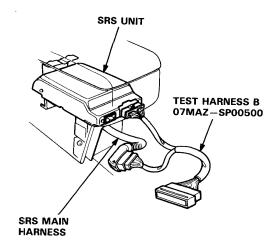
5. Measure the resistance between the No.9 terminal and the No.10 terminal.



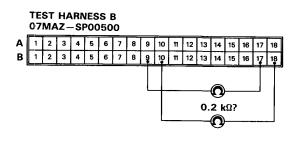


- If resistance is more than 0.2 kΩ, the front passenger's airbag inflator is faulty. Replace the front passenger's airbag assembly and recheck the voltages according to the chart on page 23-61.
- If resistance is less than 0.2 kΩ, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-61.

- Mode G: Open in seat belt pretensioner (driver's side or front passenger's side).
- Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- 2. Connect Test Harness B between the SRS unit and SRS main harness 18-P connector.



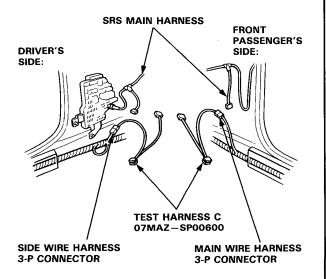
 Reconnect the seat belt pretensioner 3-P connector, then measure the resistance between the driver's seat belt pretensioner terminals B9 and B17, and between the front passenger's seat belt pretensioner terminals B10 and B18.



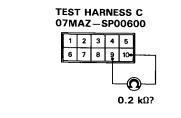
- If resistance is more than 0.2 kΩ, go to step 4.
- If resistance is less than 0.2 kΩ, the SRS unit is faulty. Substitute a known-good SRS unit and recheck the voltages according to the chart on page 23-61.



4. Disconnect the connector between the SRS main harness and the side wire harness 3-P connector (driver's side), and between the SRS main harness and the car main wire harness 3-P connector (front passenger's side). First, connect Test Harness C to the side wire harness side of the driver's pretensioner 3-P connector, and check resistance, then connect it to the car main wire harness side of the front passenger's pretensioner 3-P connector, and check resistance again.

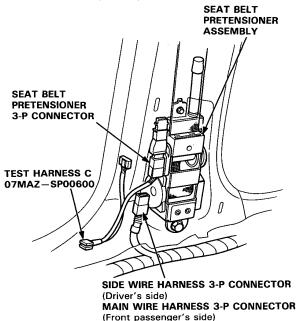


 Measure the resistance between the No.9 terminal and the No.10 terminal.

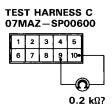


- If resistance is more than 0.2 kΩ, go to step 6.
- If resistance is less than 0.2 kΩ, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-61.

 Disconnect the 3-P connector from the driver's and front passenger's seat belt pretensioners, then connect Test Harness C to the seat belt pretensioner side of the 3-P connector, first on the driver's side, then on the front passenger's side.



7. Measure the resistance between the No.9 terminal and the No.10 terminal.



- If resistance is more than 0.2 kΩ, the seat belt pretensioner is faulty. Replace it and recheck the voltages according to the chart on page 23-61.
- If resistance is less than 0.2 kΩ, the side wire harness (driver's side) or the car main wire harness (front passenger's side) is faulty. Replace the faulty harness and recheck the voltages according to the chart on page 23-61.

(cont'd)

## Troubleshooting (cont'd)

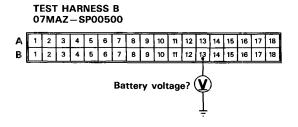
### Mode H: Short in seat belt pretensioner trigger transistor.

The SRS unit is faulty. Substitute a known-good SRS unit and recheck the voltages according to the chart on page 23-61.

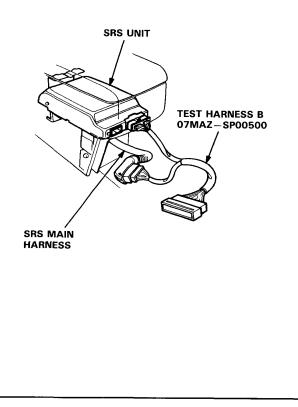
Mode I: Blown SRS No.7 (10 A): LHD, No.16 (10 A): RHD fuse, or open in the wire.

- Check the SRS No.7 (10 A): LHD, No.16 (10 A): RHD fuse in the under-dash fuse box. If it's OK, go to step 2. If it's blown, replace it with a new 10 A fuse, then turn the ignition switch ON (II):
  - If fuse doesn't blow, go on to step 2.
  - If the fuse blows, troubleshoot as necessary to find the short.
- Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- 3. Connect Test Harness B between the SRS unit and the SRS main harness 18-P connector.

- 4. Reconnect the positive and negative cable to the battery.
- 5. Measure the voltage between the B13 terminal (+) and body ground with the ignition switch ON (II).



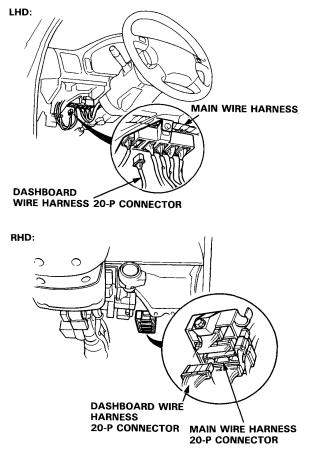
- If there is battery voltage, the SRS unit is faulty. Replace it and recheck the voltages according to the chart on page 23-61.
- If less than battery voltage, the SRS main harness is faulty. Replace it and recheck the voltages according to the chart on page 23-61.



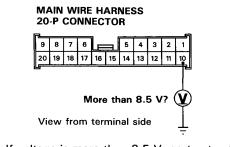


### Mode J: Short or open in SRS indicator wire harness.

1. Disconnect the dashboard wire harness 20-P connector from the main wire harness.

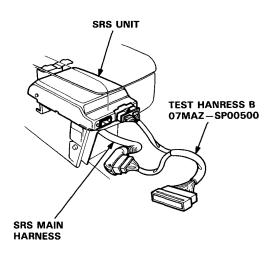


 Turn the ignition switch ON (II) and wait for six seconds. Measure the voltage between the No.10 terminal (+) and body ground on the main wire harness 20-P connector side.

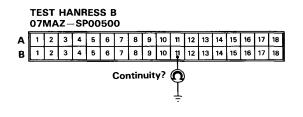


- If voltage is more than 8.5 V, go to step 8.
   If voltage is loss than 8 E V, go to step 2
- If voltage is less than 8.5 V, go to step 3.

- 3. Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- 4. Connect Test Harness B between the SRS unit and the SRS main harness 18-P connector.



- 5. Reconnect the battery positive cable and negative cable.
- 6. Check for continuity between the B11 terminal and body ground.

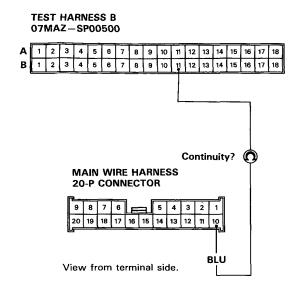


- If there is continuity, the SRS main harness is shorted. Replace the SRS main harness and recheck the voltages according to the chart on page 23-61.
- If there is no continuity, go to step 7.

(cont'd)

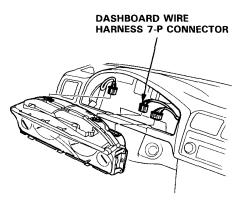
## Troubleshooting (cont'd) -

7. Check for continuity between the B11 terminal of Test Harness B and the No.10 terminal of the main wire harness 20-P connector.

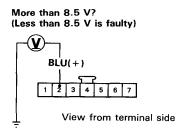


- If there is continuity, the SRS unit is faulty. Replace it and recheck the voltages according to the chart on page 23-61.
- If there is no continuity, there is an open in the SRS main harness. Replace the SRS main harness and recheck the voltages according to the chart on page 23-61.

8. Reconnect the dashboard wire harness 20-P connector to the main wire harness. Disconnect the dashboard wire harness 7-P connector from the gauge assembly.



 Turn the ignition switch ON (II) and wait for six seconds. Measure the voltage between the No. 2 terminal (+) and body ground.

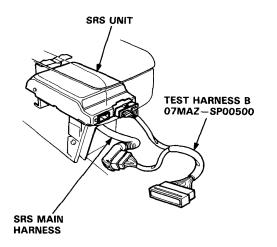


- If voltage is more than 8.5 V, the SRS indicator circuit is faulty (in the gauge assembly). Replace the gauge assembly and recheck the voltages according to the chart on page 23-61.
- If voltage is less than 8.5 V, the dashboard wire harness (or the main wire harness) is faulty. Replace it and recheck the voltages according to the chart on page 23-61.

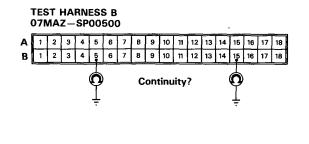


Poor ground at SRS unit or unit mounting bolts.

- 1. Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- 2. Connect Test Harness B between the SRS unit and SRS main harness 18-P connector.



3. Check for continuity between the B5 terminal and body ground, and the B15 terminal and body ground.



- If there is continuity at either terminal, the SRS unit is faulty. Replace and recheck the voltages according to the chart on page 23-61.
- If there is no continuity at either terminal, the SRS unit ground, the SRS unit component grounds or the SRS main harness is faulty. Check the grounds (check wire and control unit mounting bolts) and, if necessary, replace the SRS main harness. Recheck the voltages according to the chart on page 23-61.

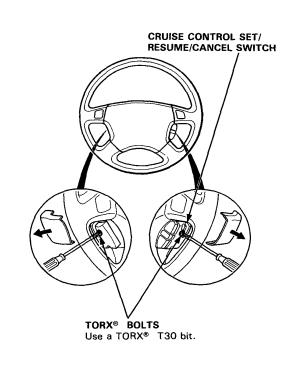
## - Airbag Assembly Replacement

A WARNING Store a removed airbag assembly with the pad surface up, if the airbag is improperly stored face down, accidental deployment could propel the unit with enough force to cause serious injury.

CAUTION:

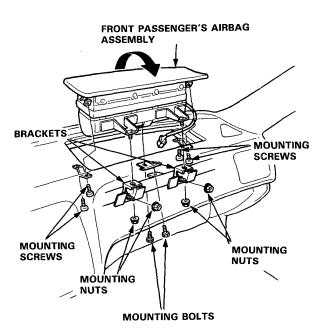
- Do not install used SRS parts from another car. When repairing, use only new SRS parts.
- Carefully inspect the airbag assembly before you install it. Do not install an airbag assembly that shows signs of being dropped or improperly handled, such as dents, cracks or deformation.
- Do not disassemble or temper with the airbag assembly.
- 1. Disconnect the battery negative cable, then disconnect the positive cable.
- 2. Before disconnecting any parts of the SRS wire harness, connect the short connectors (see page 23-54).
- 3. Remove the airbags.

**Driver's Side:** Remove the two TORX<sup>®</sup> bolts using a TORX<sup>®</sup> T30 bit, then remove the driver's airbag assembly.



### Front Passenger's Side:

- Remove the glove box, then remove the four mounting nuts and the two mounting bolts, then remove the bracket.
- Remove the four mounting screws from the front passenger's airbag assembly.



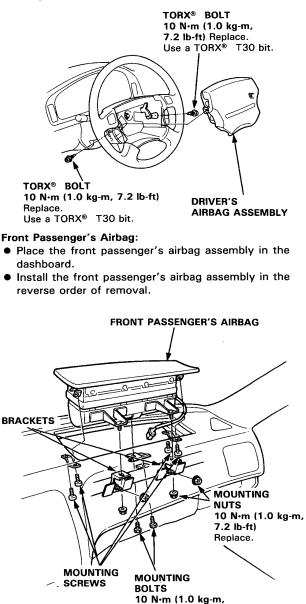
 Carefully lift the front passenger's airbag assembly out of the dashboard.



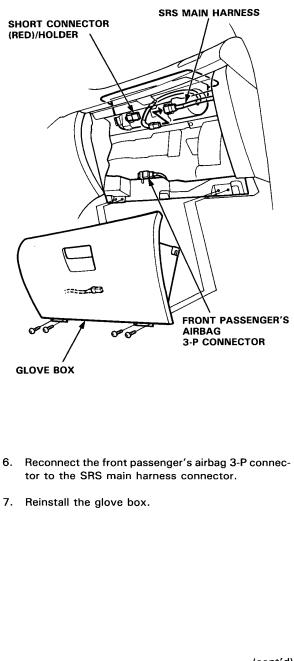
CAUTION:

- Be sure to install the SRS wiring so that it is not pinched or interfering with other car parts.
- After completing repair work, be sure to remove the SRS short connectors and reconnect all the connectors.
- 4. Install the new airbags.

**Driver's Airbag:** Place the driver's airbag assembly in the steering wheel, and secure it with new TORX<sup>®</sup> bolts.

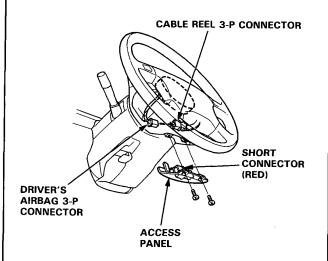


7.2 lb-ft) Replace. 5. Remove the short connectors from the front passenger's airbag connector and from the SRS main harness connector.

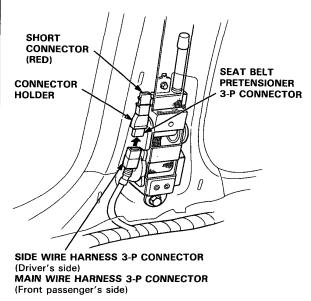


Airbag Assembly Replacement (cont'd) -

- 8. Remove the short connectors from the driver's airbag 3-P connector and from the cable reel 3-P connector.
- Reconnect the driver's airbag 3-P connector to the cable reel 3-P connector. Attach the short connector (RED) to the access panel, then reinstall the panel on the steering wheel.



- 10. Remove the short connectors (RED) from the seat belt pretensioners, then attach them to their holders.
- Reconnect the side wire harness 3-P connector to the driver's seat belt pretensioner and the main wire harness 3-P connector to the front passenger's seat belt pretensioner.



- 12. Reinstall the "B" pillar lower panel.
- 13. Reconnect the battery positive cable, then the negative cable.
- 14. After installing the airbag assembly, confirm proper system operation:
  - Turn the ignition ON (II): The instrument panel SRS indicator light should go on for about six seconds and then go off.
  - Make sure both horn buttons work.
  - Take a test drive and make sure the cruise control set/resume/cancel switch works.



## **Airbag/Seat Belt Pretensioner Disposal**

Before scrapping any airbags or seat belt pretensioners (including those in a whole car to be scrapped), the airbags must be deployed and the seat belt pretensioners must be triggered. If the car is still within the warranty period, before deploying the airbags or triggering the seat belt pretensioners, the Honda or Acura District Service Manager must give approval and/or special instruction. Only after the airbag is already deployed or a seat belt pretensioner is triggered (as the result of vehicle collision, for example), can the normal scrapping procedure be done.

If the airbags or the seat belt pretensioners appear intact (not deployed or triggered), treat them with extreme caution.

Follow the procedure, described below.

### Deploying the Airbags: In-car

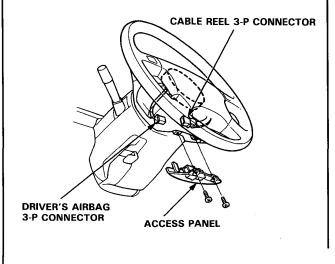
NOTE: If an SRS car is to be entirely scrapped, its airbags should be deployed while still in the car. The airbags should not be considered as salvageable parts and should never be installed in another car.

**A** WARNING Confirm that each airbag assembly is securely mounted; otherwise. severe personal injury could result from deployment.

- 1. Disconnect both the negative cable and positive cable from the battery.
- 2. Confirm that the special tool is functioning properly by following the check procedure on the label of the tool set box, or on page 23-83.

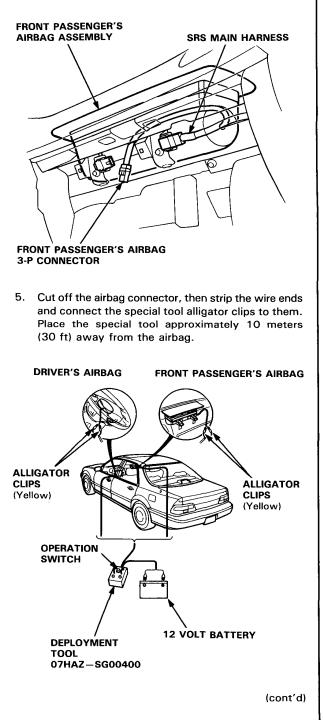
### Driver's Airbag:

3. Remove the access panel, then disconnect the 3-P connector between the airbag and the cable reel.



### Passenger's Airbag:

4. Remove the glove box, then disconnect the 3-P connector between the front passenger's airbag and SRS main harness.



Airbag/Seat Belt Pretensioner Disposal (cont'd)

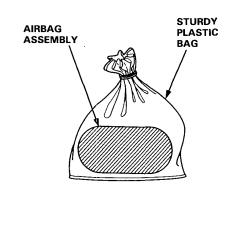
- 6. Connect a 12 volt battery to the tool:
  - If the green light on the tool goes on, the airbag igniter circuit is defective and cannot be deployed. Go to Damaged Airbag Special Procedure.
  - If the red light on the tool goes on, the airbag is ready to be deployed.
- Push the tool's deployment switch. The airbag should deploy (deployment is both highly audible and visible—a loud noise and rapid inflation of the bag, followed by slow deflation).
  - If deployment happens and the green light on the tool goes on, continue with this procedure.
  - If the airbag doesn't deploy, yet the green light goes on, its igniter is defective. Go to Damaged Airbag Special Procedure.

A WARNING During deployment, the airbag assembly can become hot enough to burn you. Wait thirty minutes after deployment before touching the assembly.

8. Dispose of the complete airbag assembly. No part of it can be reused. Place it in a sturdy plastic bag and seal it securely.

### CAUTION:

- Wear a face shield and gloves when handing a deployed airbag.
- Wash your hands and rinse them well with water after handling a deployed airbag.

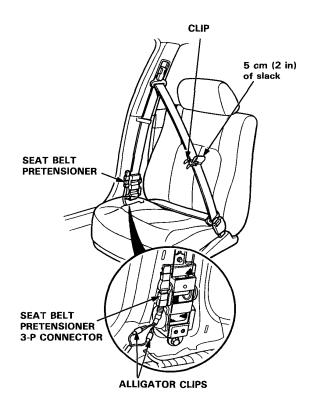


### **Triggering the Seat Belt Pretensioners:**

NOTE: If an SRS car containing one or both intact seat belt pretensioner(s) is to be entirely scrapped, the seat belt pretensioner(s) should be triggered while still in the car.

A pretensioner is not a salvageable part and should never be installed in another car.

- 1. Disconnect both the negative cable and positive cable from the battery.
- 2. Confirm that the special tool is functioning properly by following the check procedure on the label of the tool box, or on page 23-83.
- 3. Remove the "B" side trim panel.
- 4. Cut off the seat belt pretensioner connector, then strip the wire ends and connect the special tool alligator clips to them as shown. Place the special tool approximately 10 meters (30 ft) away from the car.
- 5. Buckle the seat belt, then pull out about five centimeters (two inches) of slack, make a loop with it, and hold the loop in place with a clip as shown.





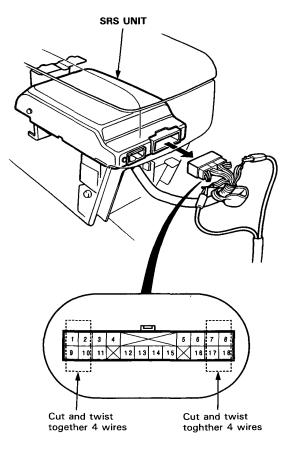
- 6. Connect a 12 volt battery to the tool:
  - If the green light on the tool goes on, the pretensioner igniter circuit is defective. Go to Damaged Airbag or Pretensioner Special Procedure.
  - If the red light on the tool goes on, the pretensioner is ready to trigger.
- 7. Push the tool's deployment switch to trigger the pretensioner igniter. The pretensioner should take up the slack in the belt (pop the clip off), and lock the belt in its retracted position.
  - If the pretensioner works and the green light on the tool goes on, continue with this procedure.
  - If the pretensioner doesn't work, yet the green light goes on, its igniter is defective. Go to Damaged Airbag or Pretensioner Special Procedure.

**A WARNING** During activation, the pretensioner can become hot enough to burn you. Wait thirty minutes after activation before touching it.

- 8. Dispose of the complete pretensioner assembly. No part of it can be reused.
- 9. Repeat steps 3 through 8 on the other side if that pretensioner has not been triggered.

### Simultaneously Deploying Airbags and Triggering Seat Belt Pretensioners:

- 1. Disconnect both the negative cable and positive cable from the battery.
- 2. Confirm that the special tool is functioning properly by following the check procedure on the label of the tool box, or on page 23-83.
- 3. Disconnect the SRS main harness 18-P connector from the SRS unit.

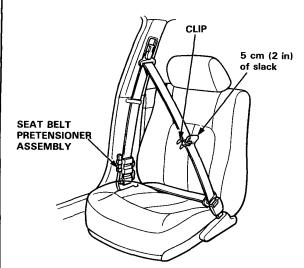


- 4. Cut eight wires at the SRS main harness 18-P connector, four on each side as shown. Strip the end of the wires, then twist them together to make each set of four wires into one.
- 5. Connect the alligator clips of the deployment tool to the ends of the twisted wires.

(cont'd)

## Airbag/Seat Belt Pretensioner Disposal (cont'd)

 Buckle the seat belt, then pull out about five centimeters (two inches) of slack, make a loop with it, and hold the loop in place with a clip as shown.



- 7. Repeat step 6 on the other front belt.
- 8. Connect a 12 volt battery to the tool:
  - If the green light on the tool goes on, an igniter circuit is defective. Go to Damaged Airbag or Pretensioner Special Procedure.
  - If the red light on the tool goes on, the system is ready.
- Push the tool's deployment switch. The airbags should deploy (deployment is both highly audible and visible — a loud noise and rapid inflation of the bags, followed by slow deflation).

The seat belt pretensioners should take up the slack (pop the clips off the belts), and lock the belts in retracted positions.

- If the airbags are deployed, the pretensioners are triggered, and the green light on the tool goes on, continue with this procedure.
- If an airbag doesn't deploy or a pretensioner isn't triggered, yet the green light goes on, an igniter is defective. Go to Damaged Airbag or Pretensioner Special Procedure.

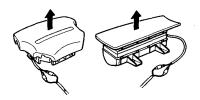
**A WARNING** During airbag deployment and pretensioner activation the airbag and pretensioner assemblies can become hot enough to burn you. Wait thirty minutes after activation before touching them.

10. Dispose of the complete airbag and pretensioner assembly. No part of them can be reused.

### Deploying the Airbag(s): Out-of-car.

NOTE: If an intact airbag assembly has been removed from the scrapped car or has been found defective or damaged during transit, storage or service, it should be deployed as follows:

**A WARNING** Position the airbag assembly face up, outdoors on flat ground at least 10 meters (30ft) from any obstacles or people.



- 1. Confirm that the special tool is functioning properly by following the check procedure on this page or on the tool box label.
- 2. Remove the short connector from the airbag connector.
- 3. Follow steps 5, 6, 7, and 8 of the in-car deployment procedure.



# Damaged Airbag or Pretensioner Special Procedure.

**A WARNING** If an airbag or pretensioner cannot be deployed or triggered, it should not be treated as normal scrap; it should still be considered a potentially explosive device that can cause serious injury.

- 1. If installed in a car, follow the removal procedure on page 23-76.
- 2. In all cases, make sure a short connector is properly installed on the airbag or pretensioner connector.
- 3. Package the airbag or pretensioner in exactly the same packaging that the new replacement part came in.
- 4. Mark the outside of the box "DAMAGED AIRBAG (or PRETENSIONER) NOT DEPLOYED" so it does not get confused with your parts stock. If applicable, also note on the box the VIN of the car from which it was removed.
- 5. Contact your Honda or Acura District Service Manager for how and where to return it for disposal.

### **Deployment Tool: Check Procedure.**

- 1. Connect the yellow clips to both switch protector handles on the tool; connect the tool to a battery.
- 2. Push the operation switch: green means the tool is OK; red means the tool is faulty.
- 3. Disconnect the battery and the yellow clips.

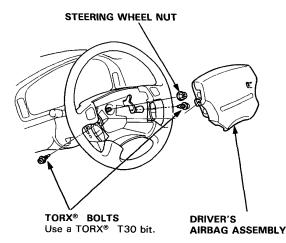
## - Cable Reel Replacement

**A WARNING** Store a removed airbag assembly with the pad surface up. If the airbag is improperly stored face down, accidental deployment could propel the unit with enough force to cause serious injury.

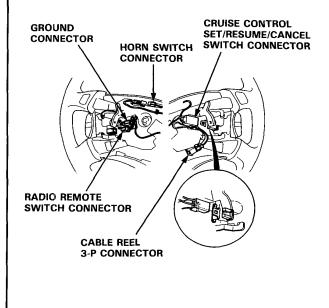
### CAUTION:

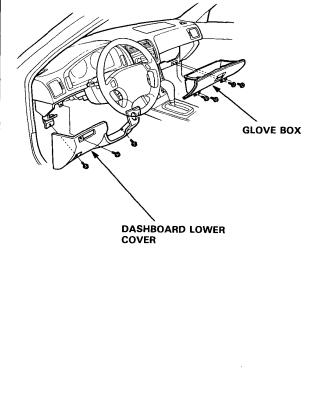
- Carefully inspect the airbag assembly before installing it. Do not install an airbag assembly that shows signs of being dropped or improperly handled, such as dents, cracks or deformation.
- Always keep the short connectors on the airbags and seat belt pretensioners when the harness is disconnected.
- Do not disassemble or tamper with any airbag assembly.
- 1. Disconnect the battery negative cable and then the positive cable.
- 2. Make sure the wheels are aligned straight ahead.
- 3. Remove the dashboard lower cover and glove box.

- 4. Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- Remove the driver's airbag assembly from the steering wheel (two T30 TORX<sup>®</sup> bolts), then remove the steering wheel nut.



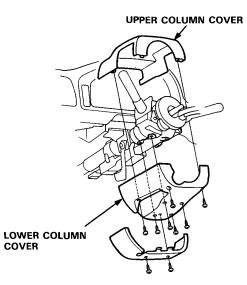
 Disconnect the connectors from the horn and cruise control set/resume/cancel switch, then remove the cable reel 3-P connector from its clips.



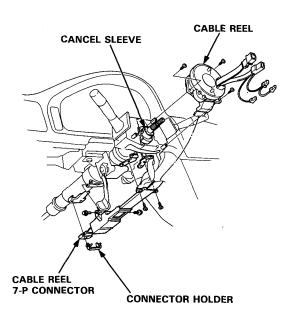




- 7. Remove the steering wheel from the column.
- 8. Remove the upper and lower column covers.



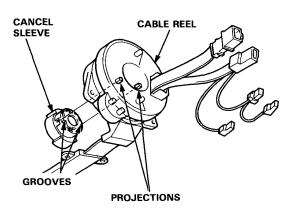
9. Disconnect the 7-P connector between the cable reel and SRS main harness, then remove the connector holder from the steering column.



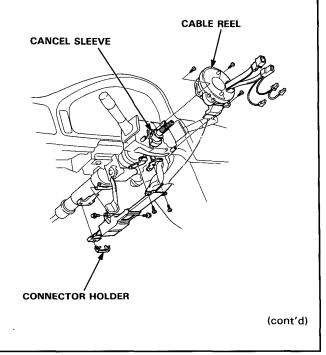
10. Remove the cable reel from the column.

### CAUTION:

- Before installing the steering wheel, the front wheels should be aligned straight ahead.
- Be sure to install the harness wires so that they are not pinched or interfering with other car parts.
- After reassembly, confirm that the wheels are still turned straight ahead and that steering wheel spoke angle is correct. If minor spoke angle adjustment is necessary, do so only by adjusting of the tie-rods, not by removing and repositioning the steering wheel.
- 11. Align the cancel sleeve grooves with the cable reel projections.

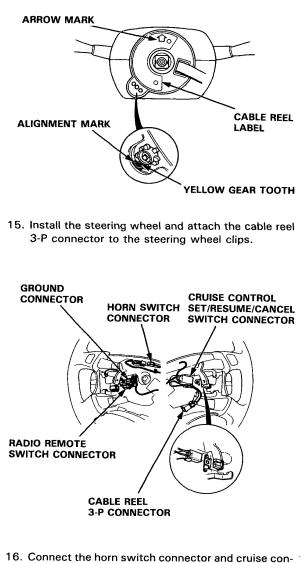


12. Carefully install the cable reel on the steering column shaft. Then attach the connector holder to the steering column.



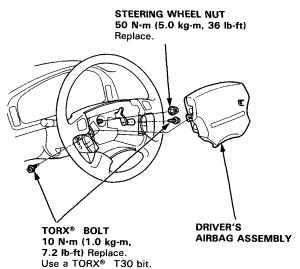
## - Cable Reel Replacement (cont'd)

- 13. Install the steering column upper and lower covers.
- 14. Center the cable reel.
  Do this by first rotating the cable reel clockwise until it stops.
  Then rotate it counterclockwise (approximately two turns) until:
  - The yellow gear tooth lines up with the alignment mark on the cover.
  - The arrow mark on the cable reel label points straight up.

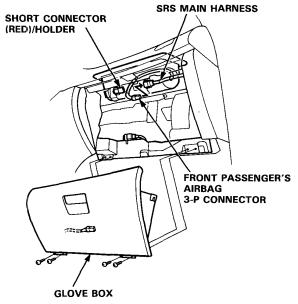


trol set/resume/cancel switch connector.

- 17. Install the steering wheel nut.
- 18. Install the driver's airbag assembly.



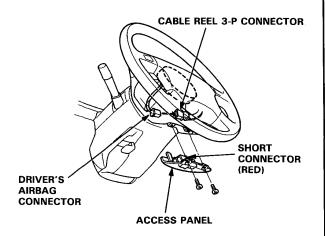
- 19. Connect the cable reel 7-P connector to the SRS main harness, then install the dashboard lower cover.
- 20. Remove the short connectors from the front passenger's airbag connector and from the SRS main harness connector.
- 21. Reconnect the front passenger's airbag 3-P connector to the SRS main harness connector.



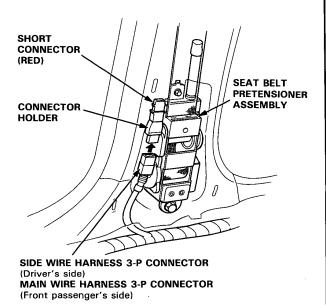
22. Reinstall the glove box.



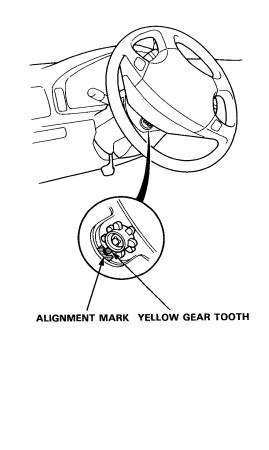
- Remove the short connectors (RED) from the driver's airbag connector and from the cable reel 3-P connector.
- 24. Reconnect the driver's airbag 3-P connector to the cable reel 3-P connector. Attach the short connector (RED) to the access panel, then reinstall the panel on the steering wheel.



- 25. Remove the short connectors (RED) from the seat belt pretensioners, then attach them to their holders.
- 26. Reconnect the side wire harness 3-P connector to the driver's seat belt pretensioner and the main wire harness 3-P connector to the front passenger's seat belt pretensioner.



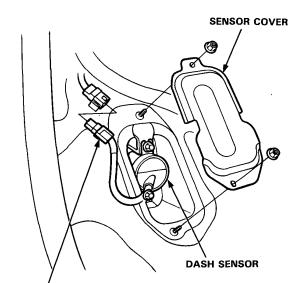
- 27. Reinstall the "B" pillar lower panel.
- 28. Reconnect the battery positive cable, then the negative cable.
- 29. After installing the cable reel, confirm proper system operation:
  - Turn the ignition ON (II): The instrument panel SRS indicator light should go on for about six seconds and then go off.
  - Make sure both horn buttons work.
  - Make sure the headlight and wiper switches work.
  - Take a test drive and make sure the cruise control set/resume/cancel switch works.
  - Rotate the steering wheel counterclockwise to make sure the yellow gear tooth lines up with the alignment mark on the cover.



## **Dash Sensor Replacement**

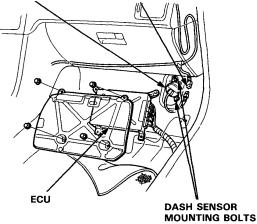
### CAUTION:

- Do not damage the sensor wiring.
- Do not install used SRS parts from another car. When repairing an SRS, use only new parts.
- Replace a sensor if it is dented, cracked or deformed.
- 1. Disconnect the battery negative cable, then the positive cable.
- 2. Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- 3. Driver's side: Remove the footrest and door sill molding, then pull the carpet back and remove the sensor cover.

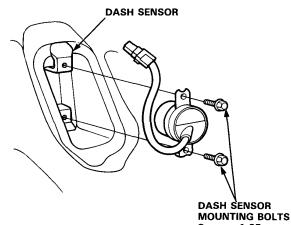


DASH SENSOR 2-P CONNECTOR 4. Front passenger's side: Remove the door sill molding and pull back the carpeting. Remove the ECU.

SRS MAIN HARNESS 2-P CONNECTOR DASH SENSOR



5. Remove the two dash sensor mounting bolts, then remove the left or right dash sensor.

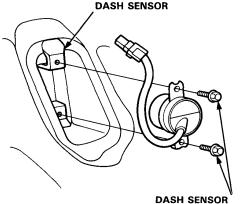


8 mm x 1.25



### CAUTION:

- Be sure to install the harness wires so that they are not pinched or interfering with other car parts.
- Carefully inspect the new dash sensor(s) for signs of being dropped or improperly handled, such as dents, cracks or deformation.
- For the SRS to function properly, the right and left sensors must be installed on the proper sides.
- 6. Install the sensor securely.



MOUNTING BOLTS 8 mm x 1.25 22 N·m (2.2 kg-m, 16 lb-ft) Replace.

7. Reinstall all other removed parts.

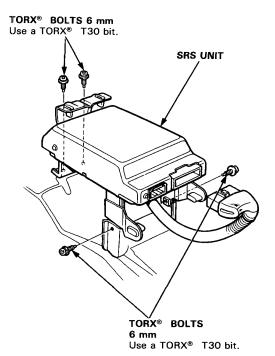
- 8. Remove the short connectors from the front passenger's airbag connector, and from the SRS main harness connector.
- 9. Reconnect the front passenger's airbag 3-P connector to the SRS main harness connector.
- Remove the short connectors from the driver's airbag connector and from the cable reel 3-P connector.
- Reconnect the driver's airbag 3-P connector to the cable reel 3-P connector. Attach the short connector (RED) to the access panel, then reinstall the panel on the steering wheel.
- 12. Remove the short connectors (RED) from the seat belt pretensioners, then attach them to their holders.
- 13. Reconnect the side wire harness 3-P connector to the driver's seat belt pretensioner and the main wire harness 3-P connector to the front passenger's seat belt pretensioner.
- 14. Reinstall the "B" pillar lower panel.
- 15. Reconnect the battery positive cable, then the negative cable.
- 16. After installing the dash sensor, confirm proper system operation: Turn the ignition ON (II): The instrument panel SRS indicator light should go on for about six seconds and then go off.

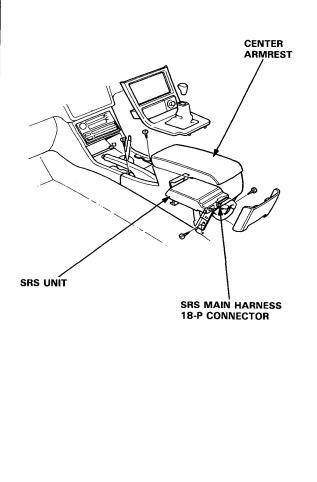
## SRS Unit Replacement -

### CAUTION:

- Before disconnecting any part of the SRS wire harness, connect the short connectors on the airbags and seat belt pretensioners.
- Do not damage the SRS unit terminals or connectors.
- Do not disassemble the SRS unit; it has no serviceable parts.
- Store the SRS unit in a clean, dry area.
- Do not use any SRS unit which has been subjected to water damage or shows signs of being dropped or improperly handled, such as dents, cracks or deformation.
- 1. Disconnect the battery negative cable, then the positive cable.
- Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- 3. Remove the center armrest, then disconnect the SRS main harness 18-P connector from the SRS unit.

4. Remove the four SRS unit TORX<sup>®</sup> bolts, then remove the SRS unit.



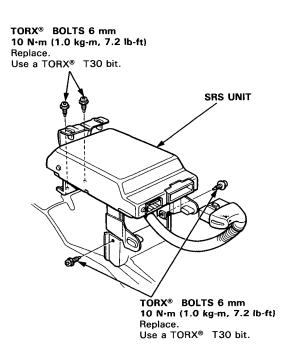


23-90

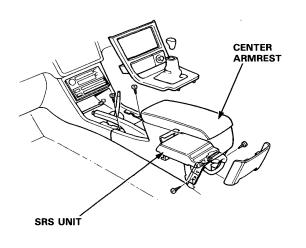


# CAUTION: Be sure to install the SRS wiring so that it is not pinched or interfering with other car parts.

5. Install the new SRS unit.



- Connect the SRS main harness 18-P connector to the SRS unit, push it into position until it clicks.
- 7. Install the center armrest.



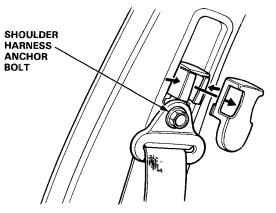
- 8. Remove the short connectors from the front passenger's airbag connector and from the SRS main harness connector.
- 9. Reconnect the front passenger's airbag 3-P connector to the SRS main harness connector.
- 10. Remove the short connectors from the driver's airbag connector and from the cable reel 3-P connector.
- Reconnect the driver's airbag 3-P connector to the cable reel 3-P connector. Attach the short connector (RED) to the access panel, then reinstall the panel on the steering wheel.
- 12. Remove the short connectors (RED) from the seat belt pretensioners, then attach them to their holders.
- Reconnect the side wire harness 3-P connector to the driver's seat belt pretensioner and the main wire harness 3-P connector to the front passenger's seat belt pretensioner.
- 14. Reinstall the "B" pillar lower panel.
- 15. Reconnect the battery positive cable, then the negative cable.
- 16. After installing the SRS unit, confirm proper system operation: Turn the ignition ON (II): The instrument panel SRS indicator light should go on for about six seconds and then go off.

## - Seat Belt Pretensioner Replacement

### CAUTION:

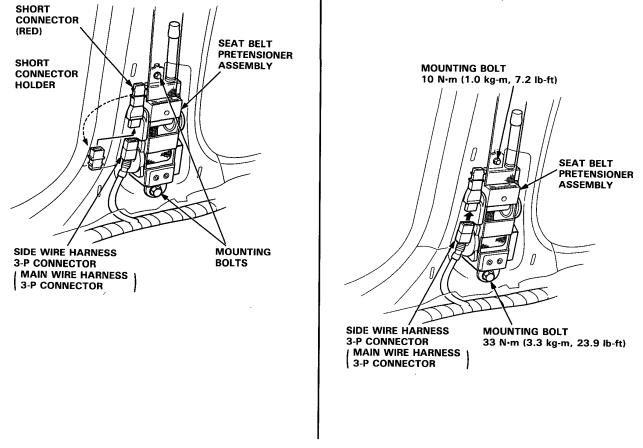
- Do not install used SRS parts from another car: use only new SRS parts.
- Carefully inspect the seat belt pretensioner before installing it. Do not install a pretensioner that shows signs of being dropped or improperly handled, such as dents, cracks or deformation.
- The shoulder harness anchor bolt must be removed before you remove the pretensioner.
- After completing repair work, be sure to remove SRS short connector A.
- Before disconnecting any part of the SRS wire harness, connect the short connectors (see page 23-54).
- 2. Remove the "B" pillar trim panel.
- Disconnect the 3-P connector from the seat belt pretensioner, then connect the short connector (RED) to the seat belt pretensioner 3-P connector.

4. Remove the shoulder harness anchor bolt, then remove the two seat belt pretensioner mounting bolts and pretensioner.



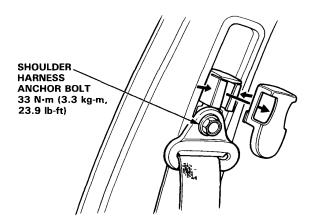
CAUTION: Be sure to install the harness wires so that they are not pinched or interfering with other parts.

5. Install the new seat belt pretensioner.

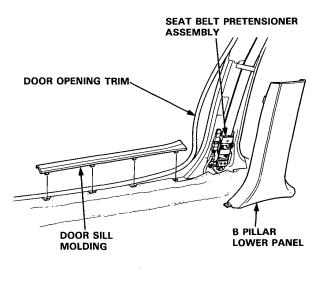




6. Reinstall the shoulder harness anchor bolt.



- 7. Remove the short connectors (RED) from the seat belt pretensioners, then attach them to their holders.
- 8. Reconnect the side wire harness 3-P connector to the driver's seat belt pretensioner and the main wire harness 3-P connector to the front passenger's seat belt pretensioner.
- 9. Reinstall the "B" pillar lower panel, door opening trim, and door sill molding.



- 10. Remove the short connectors from the front passenger's airbag connector and from the SRS main harness connector.
- 11. Reconnect the front passenger's airbag 3-P connector to the SRS main harness connector.
- 12. Remove the short connectors from the driver's airbag connector and from the cable reel 3-P connector.
- Reconnect the driver's airbag 3-P connector to the cable reel 3-P connector. Attach the short connector (RED) to the access panel, then reinstall the panel on the steering wheel.
- 14. Reconnect the battery positive cable, then the negative cable.
- 15. After installing the SRS unit, confirm proper system operation: Turn the ignition ON (II):
  - The instrument panel SRS indicator light should go on for about six seconds and then go off.
  - Make sure the seat belt retractor work.