

INTRODUCTION

Product: 2006-2009 Acura CSX Car Service Repair Workshop Manual

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

Each section includes:

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

Safety Messages

Your safety, and the safety of others, is very important. To help you make informed decisions, we have provided safety messages, and other safety information throughout this manual. Of course, it is not practical or possible to warn you about all the hazards associated with servicing this vehicle. You must use your own good judgment.

You will find important safety information in a variety of forms including:

- **Safety Labels** — on the vehicle.
- **Safety Messages** — preceded by a safety alert symbol  and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:

▲ DANGER You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.

▲ WARNING You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

▲ CAUTION You CAN be HURT if you don't follow instructions.

- **Instructions** — how to service this vehicle correctly and safely.

All information contained in this manual is based on the latest product information available at the time of printing. We reserve the right to make changes at anytime without notice. No part of this publication may be reproduced, or stored in a 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.

As you read this manual, you will find information that is preceded by a **NOTICE** symbol. The purpose of this message is to help prevent damage to your vehicle, other property, or the environment.

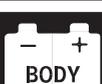
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Specifications apply to Canada

HONDA MOTOR CO., LTD.
Service Publication Office

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

Sample of manual Downloaded At www.arepairmanual.com/ 2890 pages

<https://www.arepairmanual.com/downloads/2006-2009-acura-csx-car-service-repair-workshop-manual/>

General Information	
Specifications	
Maintenance	
*Engine Electrical	
Engine Mechanical	
Engine Cooling	
Fuel and Emissions	
*Transaxle	
*Steering	
Suspension (Including TPMS)	
Brakes (Including VSA)	
*Body	
*Heating, Ventilation, and Air Conditioning	
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*Audio, Navigation, and Telematics	
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General Information

Chassis and Paint Codes

'06 Model

Vehicle Identification Number

2HH FD5 6 5 * 6 H 200001



a. Manufacturer, Make and Type of Vehicle

2HH: Honda of Canada Mfg.,
Honda Canada Inc.
Acura passenger vehicle

b. Line, Body and Engine Type

FD5: Acura CSX/K20Z2

c. Body Type and Transmission Type

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

d. Vehicle Grade (Series)

5: TOURING
7: PREMIUM

e. Check Digit

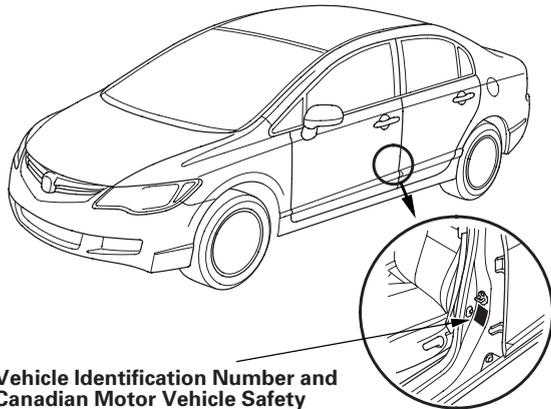
f. Model Year

6: '06

g. Factory Code

H: Alliston, Ontario Factory in Canada

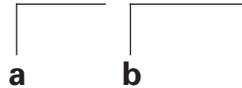
h. Serial Number



Vehicle Identification Number and Canadian Motor Vehicle Safety Standard Certification Label.

Engine Number

K20Z2 - 1300001



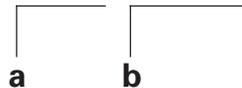
a. Engine Type

K20Z2: 2.0 L DOHC i-VTEC Sequential Multiport
Fuel-injected engine

b. Serial Number

Transmission Number

RPD6 - 1000001



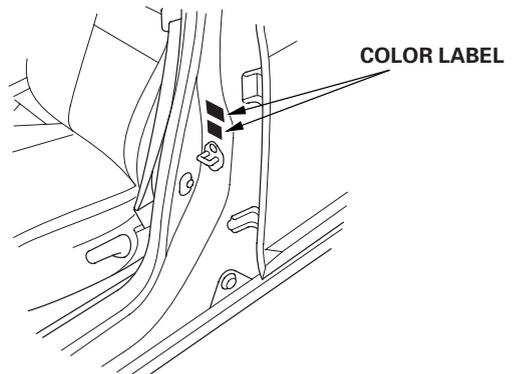
a. Transmission Type

RPD6: 5-speed Manual
MPMA: 5-speed Automatic

b. Serial Number

Paint Code

Code	Color
NH-578	Taffeta White
NH-700M	Alabaster Silver Metallic
NH-701M	Galaxy Gray Metallic
B-92P	Nighthawk Black Pearl
B-536P	Royal Blue Pearl
B-537M	Neutron Blue Metallic
YR-557P	Habanero Red Pearl





'07 Model

Vehicle Identification Number

2HH FD5 6 5 * 7 H 200001



a. Manufacturer, Make and Type of Vehicle

2HH: Honda of Canada Mfg.,
Honda Canada Inc.
Acura passenger vehicle

b. Line, Body and Engine Type

FD5: Acura CSX/K20Z2, K20Z3

c. Body Type and Transmission Type

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

6: 4-door Sedan/5-speed Automatic

d. Vehicle Grade (Series)

5: TOURING

7: PREMIUM

9: TYPE S

e. Check Digit

f. Model Year

7: '07

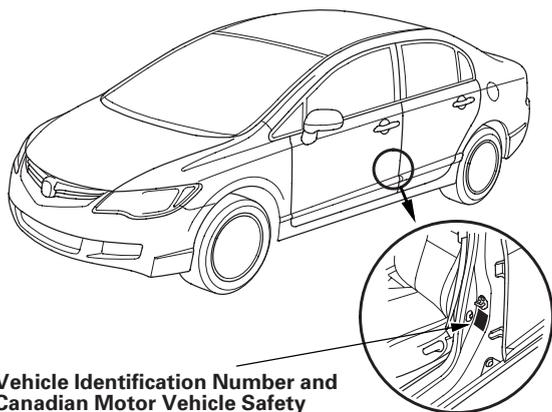
g. Factory Code

H: Alliston, Ontario Factory in Canada

h. Serial Number

200001—: K20Z2 engine model

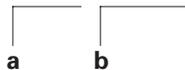
250001—: K20Z3 engine model



Vehicle Identification Number and Canadian Motor Vehicle Safety Standard Certification Label.

Engine Number

K20Z2 - 2300001



a. Engine Type

K20Z2: 2.0 L DOHC i-VTEC Sequential Multiport
Fuel-injected engine

K20Z3: 2.0 L DOHC i-VTEC Sequential Multiport
Fuel-injected engine

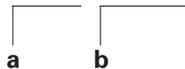
b. Serial Number

2300001—: K20Z2

2000001—: K20Z3

Transmission Number

RPD5 - 1500001



a. Transmission Type

RPD5: 5-speed Manual

PNN3: 6-speed Manual

MPMA: 5-speed Automatic

b. Serial Number

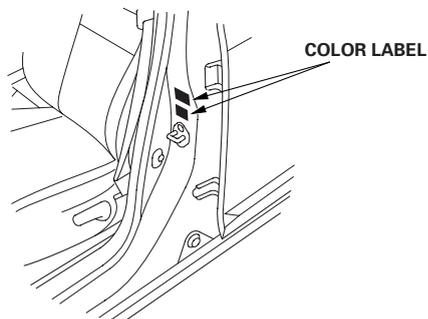
1000001—: PNN3

1500001—: RPD5

2000001—: MPMA

Paint Code

Code	Color
NH-578	Taffeta White
NH-700M	Alabaster Silver Metallic
NH-701M	Galaxy Gray Metallic
B-92P	Nighthawk Black Pearl
B-529P	Fiji Blue Pearl
B-536P	Royal Blue Pearl
B-537M	Neutron Blue Metallic
YR-557P	Habanero Red Pearl



General Information

Chassis and Paint Codes (cont'd)

'08 Model

Vehicle Identification Number

2HH FD5 6 5 * 8 H 200001



a. Manufacturer, Make and Type of Vehicle

2HH: Honda of Canada Mfg.,
Honda Canada Inc.
Acura passenger vehicle

b. Line, Body and Engine Type

FD5: Acura CSX/K20Z2, K20Z3

c. Body Type and Transmission Type

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

d. Vehicle Grade (Series)

5: CSX
7: PREMIUM
9: TYPE S

e. Check Digit

f. Model Year

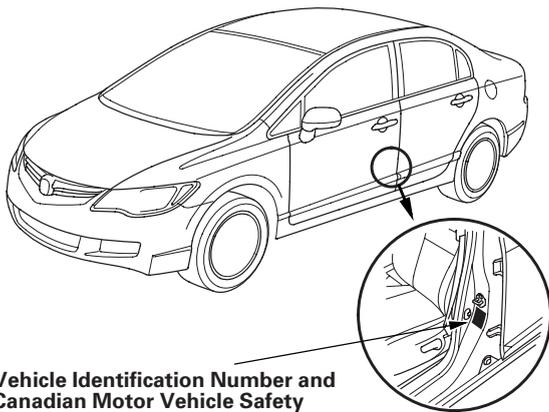
8: '08

g. Factory Code

H: Alliston, Ontario Factory in Canada

h. Serial Number

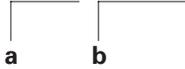
200001—: K20Z2 engine model
250001—: K20Z3 engine model



Vehicle Identification Number and Canadian Motor Vehicle Safety Standard Certification Label.

Engine Number

K20Z2 - 3300001



a. Engine Type

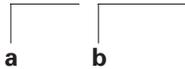
K20Z2: 2.0 L DOHC i-VTEC Sequential Multiport
Fuel-injected engine
K20Z3: 2.0 L DOHC i-VTEC Sequential Multiport
Fuel-injected engine

b. Serial Number

3300001—: K20Z2
3000001—: K20Z3

Transmission Number

RPD5 - 2500001



a. Transmission Type

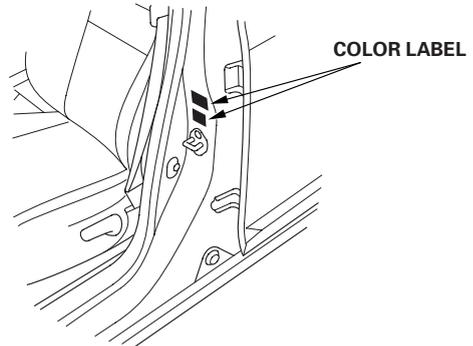
RPD5: 5-speed Manual
PNN3: 6-speed Manual
MPMA: 5-speed Automatic

b. Serial Number

2000001—: PNN3
2500001—: RPD5
3000001—: MPMA

Paint Code

Code	Color
NH-578	Taffeta White
NH-700M	Alabaster Silver Metallic
NH-701M	Galaxy Gray Metallic
B-92P	Nighthawk Black Pearl
B-529P	Fiji Blue Pearl
B-536P	Royal Blue Pearl
R-525P	New Red Pearl





'09 Model

Vehicle Identification Number

2HH FD5 6 5 * 9 H 200001



a. Manufacturer, Make and Type of Vehicle

2HH: Honda of Canada Mfg.,
Honda Canada Inc.
Acura passenger vehicle

b. Line, Body and Engine Type

FD5: Acura CSX/K20Z2, K20Z3

c. Body Type and Transmission Type

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

6: 4-door Sedan/5-speed Automatic

d. Vehicle Grade (Series)

5: CSX

7: TECH PKG

9: TYPE S

e. Check Digit

f. Model Year

9: '09

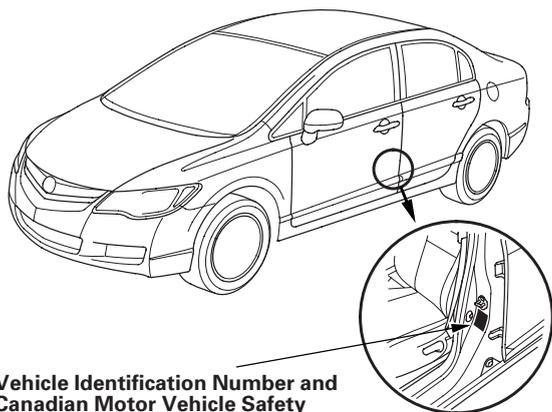
g. Factory Code

H: Alliston, Ontario Factory in Canada

h. Serial Number

200001—: K20Z2 engine model

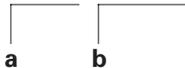
250001—: K20Z3 engine model



Vehicle Identification Number and Canadian Motor Vehicle Safety Standard Certification Label.

Engine Number

K20Z2 - 5300001



a. Engine Type

K20Z2: 2.0 L DOHC i-VTEC Sequential Multiport
Fuel-injected engine

K20Z3: 2.0 L DOHC i-VTEC Sequential Multiport
Fuel-injected engine

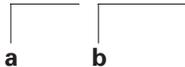
b. Serial Number

5300001—: K20Z2

4000001—: K20Z3

Transmission Number

SPTM - 4000001



a. Transmission Type

SPTM: 5-speed Manual

SPNM: 6-speed Manual

MPMA: 5-speed Automatic

b. Serial Number

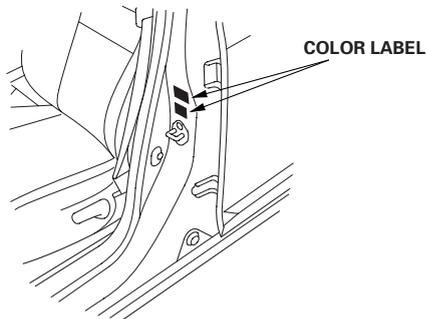
4000001—: SPTM

4000001—: SPNM

4000001—: MPMA

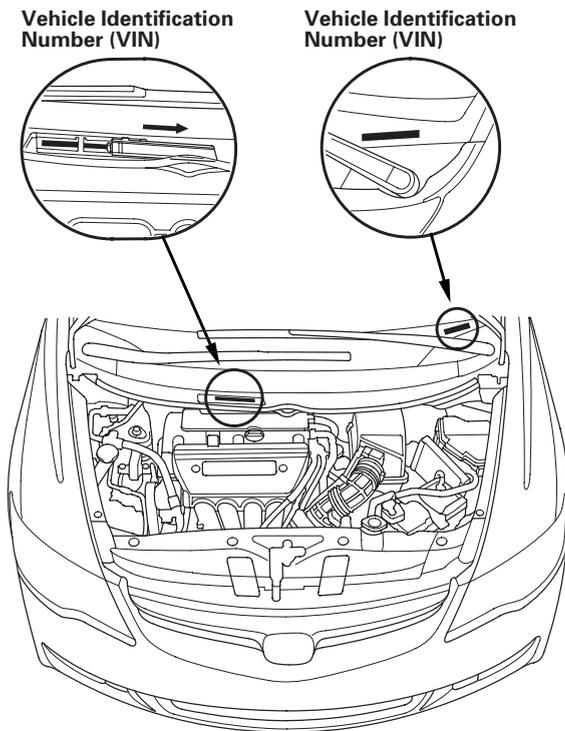
Paint Code

Code	Color
NH-578	Taffeta White
NH-700M	Alabaster Silver Metallic
NH-731P	Crystal Black Pearl
NH-737M	Polished Metal Metallic
B-561P	Dyno Blue Pearl
YR-578M	Urban Titanium Metallic
B-536P	Royal Blue Pearl
R-525P	New Red Pearl

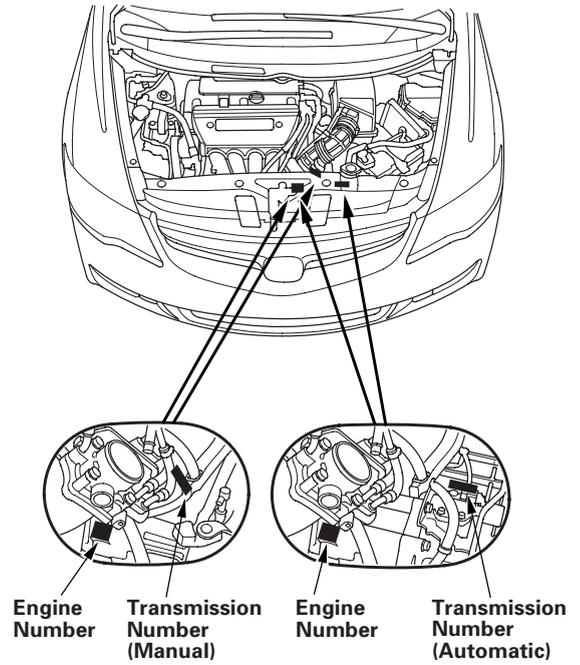


General Information

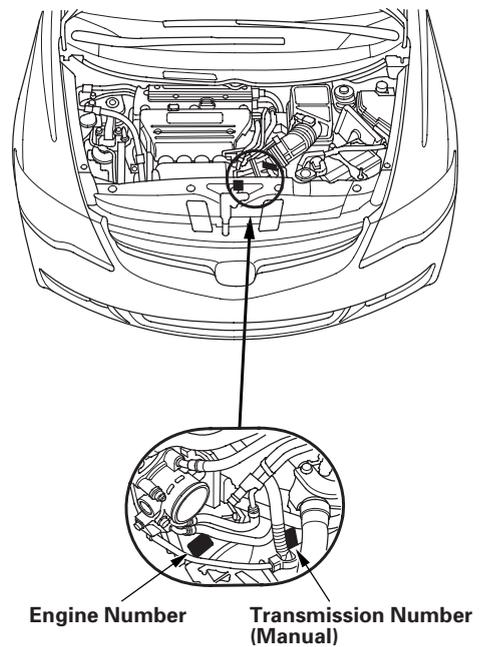
Identification Number Locations



K20Z2 engine Model:



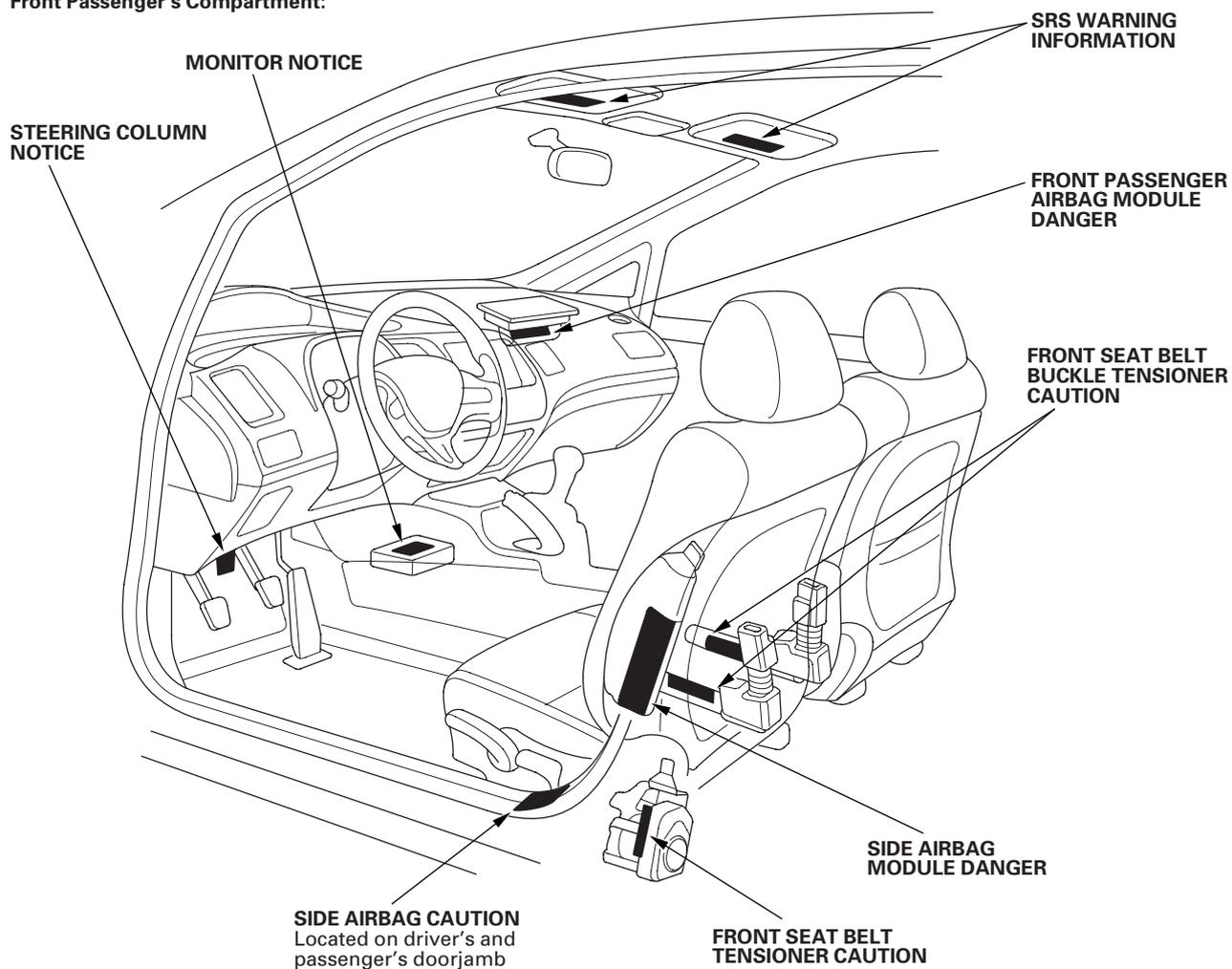
K20Z3 engine Model:



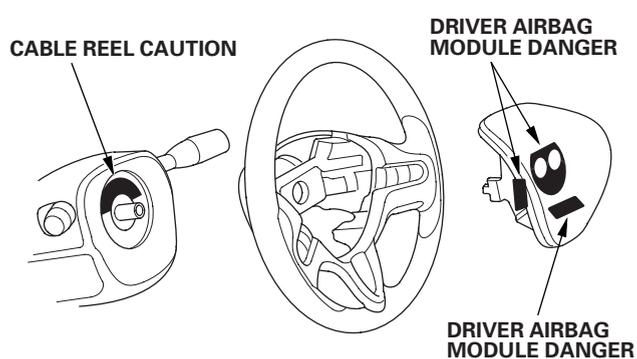


Danger/Warning/Caution Label Locations

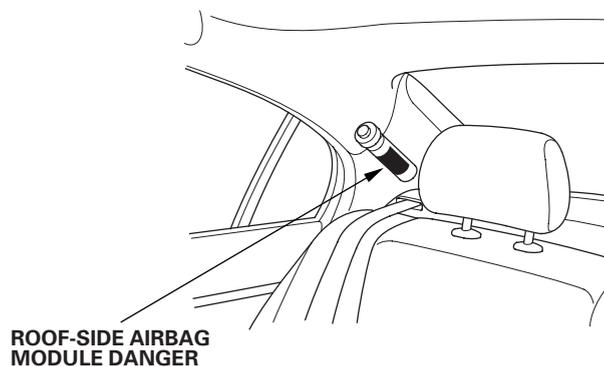
Front Passenger's Compartment:



Steering Wheel:



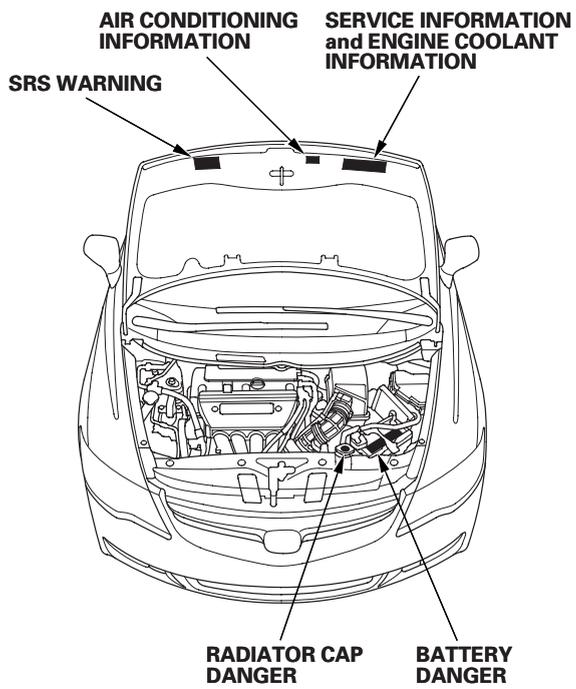
Rear Passenger's Compartment:



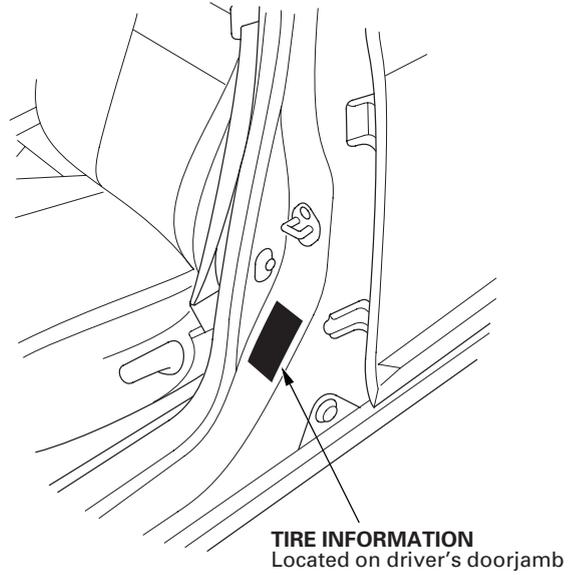
(cont'd)

General Information

Danger/Warning/Caution Label Locations (cont'd)



Doorjamb Area





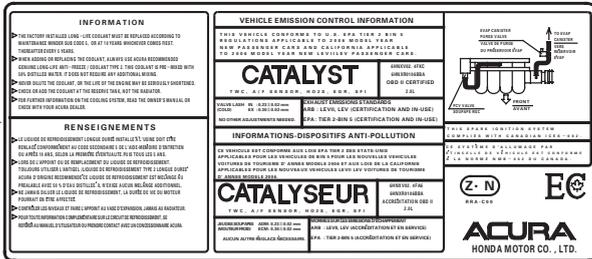
Under-hood Emission Control Label

Emission Group Identification

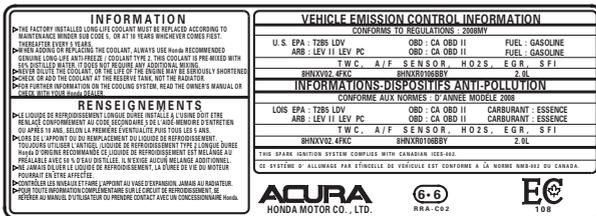
K20Z2 engine Model:

Example:

'06-'07 Models



'08-'09 Models



'06 Model

THIS VEHICLE CONFORMS TO U.S. EPA TIER 2 BIN 5 REGULATIONS APPLICABLE TO 2006 MODEL YEAR NEW PASSENGER CARS AND CALIFORNIA REGULATIONS APPLICABLE TO 2006 MODEL YEAR NEW LEV II LEV PASSENGER CARS.

'07 Model

THIS VEHICLE CONFORMS TO U.S. EPA TIER 2 BIN 5 REGULATIONS APPLICABLE TO 2007 MODEL YEAR NEW PASSENGER CARS AND CALIFORNIA REGULATIONS APPLICABLE TO 2007 MODEL YEAR NEW LEV II LEV PASSENGER CARS.

'08 Model

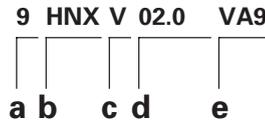
CONFORMS TO REGULATIONS: 2008 MY

'09 Model

CONFORMS TO REGULATIONS: 2009 MY

Test Group and Evaporative Family

Test Group:



a. Model Year

6: '06

7: '07

8: '08

9: '09

b. Manufacturer Subcode

HNX: HONDA

c. Family Type

V: LDV

d. Displacement Group

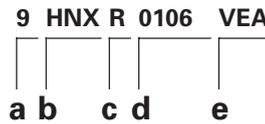
e. Sequence Characters

FKC: '06 model, '08 model

HKC: '07 model

VA9: '09 model

Evaporative Family:



a. Model Year

6: '06

7: '07

8: '08

9: '09

b. Manufacturer Subcode

HNX: HONDA

c. Family Type

R: EVAP/ORVR

d. Canister Working Capacity Group

e. Sequence Characters

BBA: '06 model

BBY: '07 model, '08 model

VEA: '09 model

General Information

Under-hood Emission Control Label (cont'd)

Emission Group Identification

K20Z3 engine Model:

Example:

'07 Model

'08-09 Models

'07 Model

THIS VEHICLE CONFORMS TO U.S. EPA TIER 2 BIN 5 REGULATIONS APPLICABLE TO 2007 MODEL YEAR NEW PASSENGER CARS AND CALIFORNIA REGULATIONS APPLICABLE TO 2007 MODEL YEAR NEW LEV II LEV PASSENGER CARS.

'08 Model

CONFORMS TO REGULATIONS: 2008 MY

'09 Model

CONFORMS TO REGULATIONS: 2009 MY

Test Group and Evaporative Family

Test Group:

9 HNX V 02.0 VA9
 | | | | |
 a b c d e

- a. Model Year
7: '07
8: '08
9: '09
- b. Manufacturer Subcode
HNX: HONDA
- c. Family Type
V: LDV
- d. Displacement Group
- e. Sequence Characters
HKC: '07 model
FKC: '08 model
VA9: '09 model

Evaporative Family:

9 HNX R 0106 VEA
 | | | | |
 a b c d e

- a. Model Year
7: '07
8: '08
9: '09
- b. Manufacturer Subcode
HNX: HONDA
- c. Family Type
R: EVAP/ORVR
- d. Canister Working Capacity Group
- e. Sequence Characters
BBY: '07 model, '08 model
VEA: '09 model

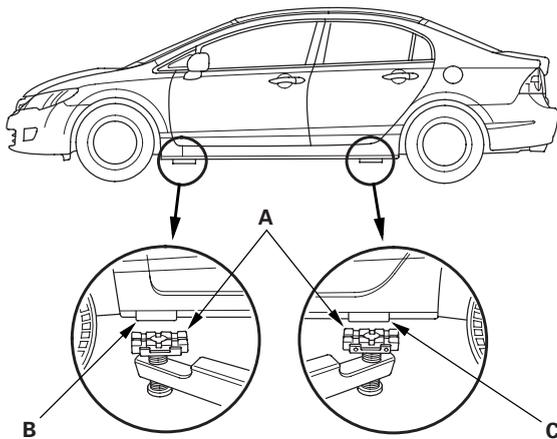


Lift and Support Points

NOTE: If you are going to remove heavy components such as suspension or the fuel tank from the rear of the vehicle, first support the front of the vehicle with tall safety stands. When substantial weight is removed from the rear of the vehicle, the center of gravity can change, causing the vehicle to tip forward on the lift.

Vehicle Lift

1. Position the lift blocks (A) under the vehicle's front support points (B) and rear support points (C).



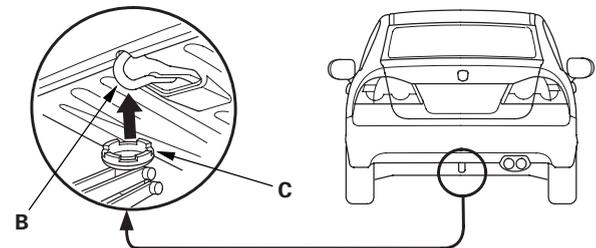
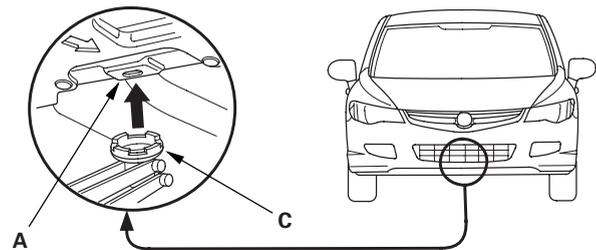
2. Raise the lift a few inches, and rock the vehicle gently to be sure it is firmly supported.
3. Raise the lift to its full height, and inspect the vehicle support points for solid contact with the lift blocks.

Safety Stands

To support the vehicle on safety stands, use the same support points as for a vehicle lift. Always use safety stands when working on or under any vehicle that is supported only by a jack.

Floor Jack

1. When lifting the front of the vehicle, set the parking brake. When lifting the rear of the vehicle, put the shift lever in reverse for manual transmission, or in P for automatic transmission.
2. Block the wheels that are not being lifted.
3. Position the floor jack under the front jacking bracket (A) or the rear jacking bracket (B). Center the jacking bracket on the jack lift platform (C), and jack up the vehicle high enough to fit the safety stands under it.



4. Position the safety stands under the support points, and adjust them so the vehicle is level.
5. Lower the vehicle onto the stands.

General Information

Towing

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

Emergency Towing

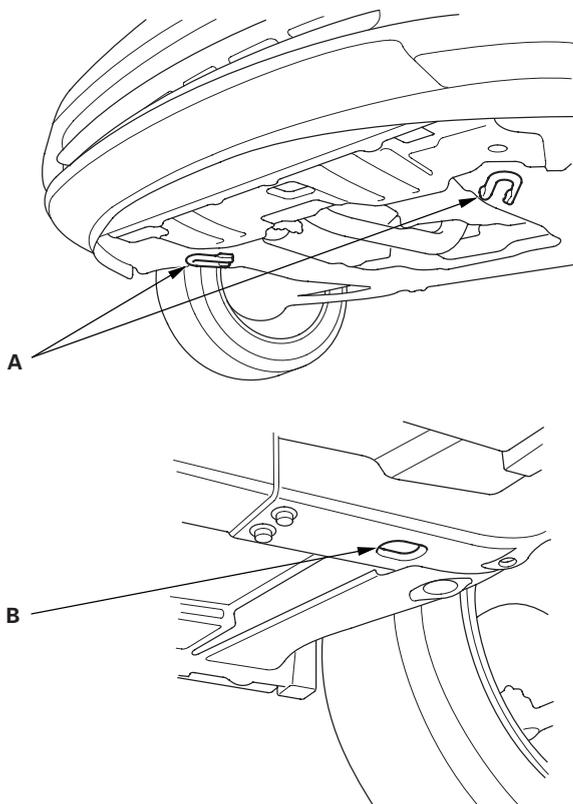
There are three popular methods of towing a vehicle.

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

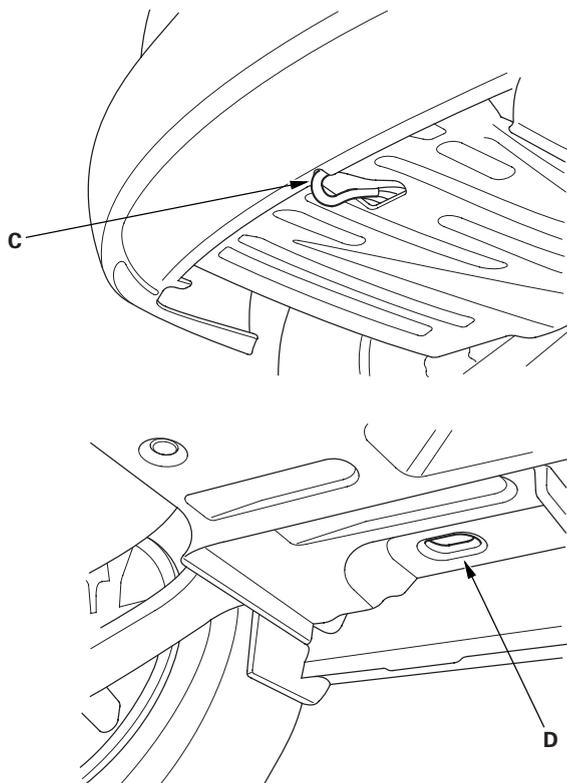
To accommodate flat-bed equipment, the vehicle is equipped with front towing hooks (A), front tie down hook slots (B), rear towing hook (C), and rear tie down hook slots (D).

The rear towing hook can be used with a winch to pull the vehicle onto the truck, and the tie down hook slots can be used to secure the vehicle to the truck.

Front:



Rear:





Wheel Lift Equipment — The tow truck uses two pivoting arms that go under the tires (front or rear) and lift them off the ground. The other two wheels remain on the ground. **This is an acceptable way of towing the vehicle.**

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

If the vehicle cannot be transported by a flat-bed, it should be towed with the front wheels off the ground. If the vehicle is damaged, and must be towed with the front wheels on the ground, or with all four wheels on the ground, do this:

Manual Transmission

- Release the parking brake.
- Shift the transmission to neutral.
- Leave the ignition switch in ACCESSORY (I) so the steering wheel does not lock.
- Make sure all accessories are turned off to minimize current battery draw.

Automatic Transmission

- Release the parking brake.
- Start the engine.
- Shift to D, then to N.
- Turn off the engine.
- Leave the ignition switch in ACCESSORY (I) so the steering wheel does not lock.
- Make sure all accessories are turned off to minimize current battery draw.

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

NOTICE

- Improper towing preparation will damage the transmission. Follow the above procedure exactly. If you cannot shift the transmission or start the engine (automatic transmission), the vehicle must be transported on a flat-bed.
- Trying to lift or tow the vehicle by the bumpers will cause serious damage. The bumpers are not designed to support the vehicle's weight.

General Information

Parts Marking

To deter vehicle theft, certain major components are marked with the vehicle identification number (VIN). Original parts have self-adhesive labels. Replacement body parts have generic self-adhesive labels. These labels should not be removed. The original engine or transmission VIN plates are not transferable to the replacement engine or transmission.

NOTE: Be careful not to damage the parts marking labels during body repair. Mask the labels before repairing the part.

Specifications

Standards and Service Limits

Engine Electrical	2-2
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Standards and Service Limits

Engine Electrical

Item	Measurement	Qualification	Standard or New	Service Limit
Ignition coil	Rated voltage		12 V	
	Firing order		1—3—4—2	
Spark plug	Type (K20Z2)		DENSO: SKJ20DR-M11	
	Type (K20Z3)		DENSO: SK22PR-M11S	
	Gap		1.0—1.1 mm (0.039—0.043 in.)	———
Ignition timing	At idle Check the <i>red</i> mark	M/T (in neutral), A/T (in N or P)	8±2 °BTDC	
Drive belt	Tension		Auto-tensioner	
Alternator	Output	At 13.5 V and normal engine temperature	105 A	
	Coil (rotor) resistance	20 °C (68 °F)	3.2—4.0 Ω	
	Slip ring O.D.		14.4 mm (0.57 in.)	14.0 mm (0.55 in.)
	Brush length		10.5 mm (0.41 in.)	1.5 mm (0.06 in.)
	Brush spring tension		3.2 N (0.33 kgf, 0.7 lbf)	
Starter	Output		1.6 kW	
	Commutator mica depth		0.40—0.50 mm (0.016—0.020 in.)	0.15 mm (0.006 in.)
	Commutator runout		0.02 mm (0.0008 in.) max.	0.05 mm (0.002 in.)
	Commutator O.D.		28.0—28.1 mm (1.102—1.106 in.)	27.5 mm (1.083 in.)
	Brush length		11.1—11.5 mm (0.44—0.45 in.)	4.3 mm (0.17 in.)

Engine Assembly

Item	Measurement	Qualification	Standard or New
Compression	Pressure	Minimum	930 kPa (9.5 kgf/cm ² , 135 psi)
	Check the engine with the starter cranking	Maximum variation	200 kPa (2.0 kgf/cm ² , 28 psi)

Cylinder Head

Item	Measurement	Qualification	Standard or New	Service Limit	
Head	Warpage		—	0.05 mm (0.002 in.)	
	Height		103.95—104.05 mm (4.093—4.096 in.)	—	
Camshaft	End play		0.05—0.20 mm (0.002—0.008 in.)	0.4 mm (0.02 in.)	
	Camshaft-to-holder oil clearance	No. 1 journal	0.030—0.069 mm (0.001—0.003 in.)	0.15 mm (0.006 in.)	
		No. 2, 3, 4, 5 journals	0.060—0.099 mm (0.002—0.004 in.)	0.15 mm (0.006 in.)	
	Total runout		0.03 mm (0.001 in.) max.	0.04 mm (0.002 in.)	
	Cam lobe height (K20Z2)	Intake (primary)		34.263 mm (1.3489 in.)	—
		Intake (secondary)		29.638 mm (1.1668 in.)	—
		Exhaust		34.092 mm (1.3422 in.)	—
	Cam lobe height (K20Z3)	Intake (primary)		32.791 mm (1.2910 in.)	—
		Intake (mid)		35.534 mm (1.3990 in.)	—
		Intake (secondary)		32.678 mm (1.2865 in.)	—
		Exhaust (primary)		32.772 mm (1.2902 in.)	—
		Exhaust (mid)		34.768 mm (1.3688 in.)	—
		Exhaust (secondary)		32.661 mm (1.2859 in.)	—
	Valve	Clearance (cold) (K20Z2)	Intake	0.21—0.25 mm (0.008—0.010 in.)	—
Exhaust			0.28—0.32 mm (0.011—0.013 in.)	—	
Clearance (cold) (K20Z3)		Intake	0.21—0.25 mm (0.008—0.010 in.)	—	
		Exhaust	0.25—0.29 mm (0.010—0.011 in.)	—	
Stem O.D.		Intake	5.475—5.485 mm (0.2156—0.2159 in.)	5.445 mm (0.214 in.)	
		Exhaust	5.450—5.460 mm (0.2146—0.2150 in.)	5.420 mm (0.213 in.)	
Stem-to-guide clearance		Intake	0.030—0.055 mm (0.0012—0.0022 in.)	0.08 mm (0.003 in.)	
	Exhaust	0.055—0.080 mm (0.0022—0.0031 in.)	0.11 mm (0.004 in.)		
Valve seat	Width	Intake	1.25—1.55 mm (0.049—0.061 in.)	2.00 mm (0.079 in.)	
		Exhaust	1.25—1.55 mm (0.049—0.061 in.)	2.00 mm (0.079 in.)	
	Stem installed height	Intake	44.0—44.5 mm (1.73—1.75 in.)	44.7 mm (1.76 in.)	
		Exhaust	44.1—44.6 mm (1.74—1.76 in.)	44.8 mm (1.76 in.)	
Valve spring	Free length	Intake	NIPPON HATSUJO: 47.57 mm (1.8728 in.)	—	
			CHUO HATSUJO: 47.58 mm (1.8732 in.)		
		Exhaust	NIPPON HATSUJO: 49.64 mm (1.954 in.)		
			CHUO HATSUJO: 49.63 mm (1.954 in.)		
Valve guide	I.D.	Intake	5.515—5.530 mm (0.2171—0.2177 in.)	5.55 mm (0.219 in.)	
		Exhaust	5.515—5.530 mm (0.2171—0.2177 in.)	5.55 mm (0.219 in.)	
	Installed height	Intake	15.2—16.2 mm (0.598—0.638 in.)	—	
		Exhaust	15.5—16.5 mm (0.610—0.650 in.)	—	
Rocker arm	Arm-to-shaft clearance (K20Z2)	Intake	0.025—0.052 mm (0.0010—0.0020 in.)	0.08 mm (0.003 in.)	
		Exhaust	0.018—0.056 mm (0.0007—0.0022 in.)	0.08 mm (0.003 in.)	
	Arm-to-shaft clearance (K20Z3)	Intake	0.025—0.052 mm (0.0010—0.0020 in.)	0.08 mm (0.003 in.)	
		Exhaust	0.025—0.052 mm (0.0010—0.0020 in.)	0.08 mm (0.003 in.)	

Standards and Service Limits

Engine Block

Item	Measurement	Qualification	Standard or New	Service Limit	
Block	Warpage of deck		0.07 mm (0.003 in.) max.	0.10 mm (0.004 in.)	
	Bore diameter	A or I	86.010—86.020 mm (3.3862—3.3866 in.)	86.070 mm (3.3886 in.)	
		B or II	86.000—86.010 mm (3.3858—3.3862 in.)	86.070 mm (3.3886 in.)	
	Bore taper		————	0.05 mm (0.002 in.)	
	Reboring limit		————	0.25 mm (0.01 in.)	
Piston	Skirt O.D. at 11 mm (0.4 in.) from bottom of skirt	No letter or A	85.980—85.990 mm (3.3850—3.3854 in.)	85.930 mm (3.3831 in.)	
		Letter B	85.970—85.980 mm (3.3846—3.3850 in.)	85.920 mm (3.3827 in.)	
	Clearance in cylinder		0.020—0.040 mm (0.0008—0.0016 in.)	0.05 mm (0.002 in.)	
Piston ring	Ring-to-groove clearance (K20Z2)	Top	0.035—0.060 mm (0.0014—0.0024 in.)	0.13 mm (0.005 in.)	
		Second	0.030—0.055 mm (0.0012—0.0022 in.)	0.13 mm (0.005 in.)	
	Ring-to-groove clearance (K20Z3)	Top	0.045—0.070 mm (0.0018—0.0028 in.)	0.13 mm (0.005 in.)	
		Second	0.040—0.065 mm (0.0016—0.0026 in.)	0.13 mm (0.005 in.)	
	Ring end gap (K20Z2)	Top	0.20—0.35 mm (0.008—0.014 in.)	0.60 mm (0.024 in.)	
		Second	0.40—0.55 mm (0.016—0.022 in.)	0.70 mm (0.028 in.)	
		Oil	0.20—0.70 mm (0.008—0.028 in.)	0.80 mm (0.031 in.)	
	Ring end gap (K20Z3)	Top	0.20—0.35 mm (0.008—0.014 in.)	0.60 mm (0.024 in.)	
		Second	0.50—0.65 mm (0.020—0.026 in.)	0.75 mm (0.030 in.)	
		Oil	0.20—0.70 mm (0.008—0.028 in.)	0.80 mm (0.031 in.)	
	Piston pin	O.D.		21.961—21.965 mm (0.8646—0.8648 in.)	21.953 mm (0.8643 in.)
		Pin-to-piston clearance		−0.005 to +0.002 mm (−0.00020 to +0.00008 in.)	0.005 mm (0.0002 in.)
Connecting rod	Pin-to-rod clearance		0.005—0.015 mm (0.0002—0.0006 in.)	0.02 mm (0.0008 in.)	
	Small-end bore diameter		21.970—21.976 mm (0.8650—0.8652 in.)	————	
	Large-end bore diameter (K20Z2)		48.0 mm (1.89 in.)	————	
	Large-end bore diameter (K20Z3)		51.0 mm (2.01 in.)	————	
	End play		0.15—0.30 mm (0.006—0.012 in.)	0.40 mm (0.016 in.)	
Crankshaft	Main journal diameter	No. 1, 2, 4, 5 journals	54.984—55.008 mm (2.1648—2.1657 in.)	————	
		No. 3 journal	54.976—55.000 mm (2.1644—2.1654 in.)	————	
	Rod journal diameter (K20Z2)		44.976—45.000 mm (1.7707—1.7717 in.)	————	
	Rod journal diameter (K20Z3)		44.976—45.000 mm (1.7707—1.7717 in.)	————	
	Rod/main journal taper		0.005 mm (0.0002 in.) max.	0.010 mm (0.0004 in.)	
	Rod/main journal out-of-round		0.005 mm (0.0002 in.) max.	0.010 mm (0.0004 in.)	
	End play		0.10—0.35 mm (0.004—0.014 in.)	0.45 mm (0.018 in.)	
Crankshaft bearing	Main bearing-to-journal oil clearance	No. 1, 2, 4, 5 journals	0.017—0.041 mm (0.0007—0.0016 in.)	0.050 mm (0.0020 in.)	
		No. 3 journal	0.025—0.049 mm (0.0010—0.0019 in.)	0.055 mm (0.0022 in.)	
	Connecting rod bearing-to-journal oil clearance (K20Z2)		0.020—0.050 mm (0.0008—0.0020 in.)	0.060 mm (0.0024 in.)	
	Connecting rod bearing-to-journal oil clearance (K20Z3)		0.032—0.066 mm (0.0013—0.0026 in.)	0.077 mm (0.0030 in.)	
	Runout		0.03 mm (0.0012 in.) max.	0.04 mm (0.0016 in.)	

Engine Lubrication

Item	Measurement	Qualification	Standard or New	Service Limit	
Engine oil	Capacity (K20Z2)	Engine overhaul	5.3 L (5.6 US qt)		
		Oil change including filter	4.2 L (4.4 US qt)		
		Oil change without filter	4.0 L (4.2 US qt)		
	Capacity (K20Z3)	Engine overhaul	5.5 L (5.8 US qt)		
		Oil change including filter	4.4 L (4.6 US qt)		
		Oil change without filter	4.2 L (4.4 US qt)		
Oil pump	Inner-to-outer rotor clearance		0.06—0.16 mm (0.002—0.006 in.)	0.20 mm (0.008 in.)	
	Pump housing-to-outer rotor clearance		0.15—0.21 mm (0.006—0.008 in.)	0.23 mm (0.009 in.)	
	Pump housing-to-rotor axial clearance		0.035—0.070 mm (0.0014—0.0028 in.)	0.12 mm (0.005 in.)	
	Balancer shafts, journal diameter	No. 1 journal, front shaft		19.938—19.950 mm (0.7850—0.7854 in.)	19.92 mm (0.784 in.)
		No. 1 journal, rear shaft		23.938—23.950 mm (0.9424—0.9429 in.)	23.92 mm (0.942 in.)
		No. 2 journal, front and rear shaft		32.949—32.961 mm (1.2972—1.2977 in.)	32.93 mm (1.296 in.)
	Balancer shafts, journal taper		0.005 mm (0.0002 in.) max.	—	
	Balancer shafts, end play	Front		0.063—0.108 mm (0.0025—0.0043 in.)	0.14 mm (0.0055 in.)
		Rear		0.063—0.108 mm (0.0025—0.0043 in.)	0.14 mm (0.0055 in.)
	Balancer shafts, shaft-to-bearing clearance	No. 1 journal, front shaft		0.050—0.082 mm (0.0020—0.0032 in.)	0.10 mm (0.004 in.)
		No. 1 journal, rear shaft		0.050—0.082 mm (0.0020—0.0032 in.)	0.10 mm (0.004 in.)
		No. 2 journal, front and rear shaft		0.060—0.120 mm (0.0024—0.0047 in.)	0.15 mm (0.006 in.)
	Balancer shaft bearings, I.D.	No. 1 journal, front shaft		20.000—20.020 mm (0.7874—0.7882 in.)	20.03 mm (0.789 in.)
		No. 1 journal, rear shaft		24.000—24.020 mm (0.9449—0.9457 in.)	24.03 mm (0.946 in.)
		No. 2 journal, front and rear shaft		33.021—33.069 mm (1.3000—1.3019 in.)	33.09 mm (1.303 in.)
	Relief valve, oil pressure with oil temperature at 80 °C (176 °F)	At idle		70 kPa (0.7 kgf/cm ² , 10 psi) min.	
		At 3,000 rpm		300 kPa (3.1 kgf/cm ² , 44 psi) min.	

Standards and Service Limits

Cooling System

Item	Measurement	Qualification	Standard or New
Radiator	Coolant capacities (including engine, heater, hoses, and reservoir) Use Honda Long Life Antifreeze/ Coolant Type 2 (K20Z2)	M/T: engine overhaul	6.6 L (1.74 US gal)
		M/T: coolant change	4.3 L (1.14 US gal)
		A/T: engine overhaul	6.5 L (1.72 US gal)
		A/T: coolant change	4.2 L (1.11 US gal)
	Coolant capacities (includes engine, heater, hoses, and reservoir) Use Honda Long Life Antifreeze/ Coolant Type 2 (K20Z3)	Engine overhaul	6.8 L (1.80 US gal)
		Coolant change	4.5 L (1.19 US gal)
Coolant reservoir	Coolant capacity		0.4 L (0.11 US gal)
Radiator cap	Opening pressure		93–123 kPa (0.95–1.25 kgf/cm ² , 14–18 psi)
Thermostat	Opening temperature	Begins to open	76–80 °C (169–176 °F)
		Fully open	90 °C (194 °F)
	Valve lift at fully open		8.0 mm (0.31 in.)

Fuel and Emissions

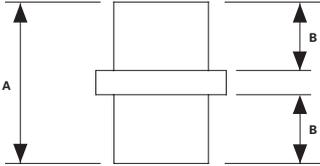
Item	Measurement	Qualification	Standard or New
Fuel pressure regulator	Pressure with fuel pressure gauge connected		330—380 kPa (3.4—3.9 kgf/cm ² , 48—55 psi)
Fuel tank	Capacity		50 L (13.2 US gal)
Engine idle (K20Z2)	Idle speed without load	M/T (in neutral)	700±50 rpm
		A/T (in N or P)	800±50 rpm
	Idle speed with high electrical load (A/C switch ON, temperature set to max cool, blower fan on High, rear window defogger ON, and headlights on high beam)	M/T (in neutral)	780±50 rpm
		A/T (in N or P)	800±50 rpm
Engine idle (K20Z3)	Idle speed without load	M/T (in neutral)	750±50 rpm
	Idle speed with high electrical load (A/C switch ON, temperature set to max cool, blower fan on High, rear window defogger ON, and headlights on high beam)	M/T (in neutral)	750±50 rpm

Clutch

Item	Measurement	Qualification	Standard or New	Service Limit
Clutch pedal	Height from floor	Except Type S	159.3 mm (6.27 in.)	_____
		Type S	161.3 mm (6.35 in.)	_____
	Stroke		130—140 mm (5.12—5.51 in.)	_____
Flywheel	Runout on clutch mating surface		0.05 mm (0.002 in.) max.	0.15 mm (0.006 in.)
Clutch disc	Rivet head depth		1.65—2.25 mm (0.065—0.089 in.)	0.7 mm (0.03 in.)
	Thickness		8.3—8.9 mm (0.33—0.35 in.)	6.0 mm (0.24 in.)
Pressure plate	Warpage		0.03 mm (0.001 in.) max.	0.15 mm (0.006 in.)
	Evenness of the height of the diaphragm spring fingers		0.6 mm (0.02 in.) max.	0.8 mm (0.03 in.)

Standards and Service Limits

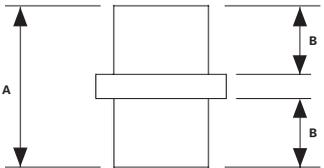
Manual Transmission and M/T Differential (5-speed)

Item	Measurement	Qualification	Standard or New	Service Limit
Manual transmission fluid	Capacity	Fluid change	1.5 L (1.6 US qt)	
	Use Acura MTF	Overhaul	1.7 L (1.8 US qt)	
Mainshaft	End play		0.11—0.17 mm (0.004—0.007 in.)	Adjust
	Diameter of ball bearing contact area (transmission housing side)		27.987—28.000 mm (1.1018—1.1024 in.)	27.93 mm (1.100 in.)
	Diameter of 4th/5th gear distance collar contact area		31.984—32.000 mm (1.2592—1.2598 in.)	31.93 mm (1.257 in.)
	Diameter of needle bearing contact area		38.984—39.000 mm (1.5348—1.5354 in.)	38.93 mm (1.533 in.)
	Diameter of ball bearing contact area (clutch housing side)		27.977—27.990 mm (1.1015—1.1020 in.)	27.92 mm (1.099 in.)
	Diameter of bushing contact area		20.80—20.85 mm (0.819—0.821 in.)	20.75 mm (0.817 in.)
	Runout		0.02 mm (0.001 in.) max.	0.05 mm (0.002 in.)
Mainshaft 3rd, 4th, and 5th gear	I.D.		44.009—44.025 mm (1.7326—1.7333 in.)	44.08 mm (1.735 in.)
	End play		0.06—0.16 mm (0.002—0.006 in.)	0.25 mm (0.010 in.)
	Thickness		23.92—23.97 mm (0.942—0.944 in.)	23.80 mm (0.937 in.)
Mainshaft 4th/5th gear distance collar	I.D.		32.00—32.01 mm (1.2598—1.2602 in.)	32.02 mm (1.261 in.)
	O.D.		38.989—39.000 mm (1.5350—1.5354 in.)	38.94 mm (1.533 in.)
	Length	A	51.95—52.05 mm (2.045—2.049 in.)	—
		B	24.03—24.08 mm (0.946—0.948 in.)	—
				
MBS distance collar	I.D.		28.00—28.10 mm (1.102—1.106 in.)	—
	Length		23.95—24.05 mm (0.943—0.947 in.)	—
Countershaft	Diameter of ball bearing contact area (transmission housing side)		30.020—30.033 mm (1.1819—1.1824 in.)	29.97 mm (1.180 in.)
	Diameter of 1st gear distance collar contact area		39.937—39.950 mm (1.5723—1.5728 in.)	39.88 mm (1.570 in.)
	Diameter of needle bearing contact area (clutch housing side)		40.000—40.015 mm (1.5748—1.5754 in.)	39.95 mm (1.573 in.)
	Runout		0.02 mm (0.001 in.) max.	0.05 mm (0.002 in.)
	35 mm shim-to-bearing inner race clearance		0.04—0.10 mm (0.0016—0.0039 in.)	Adjust
Countershaft 1st and 2nd gear	I.D.		52.010—52.029 mm (2.0476—2.0484 in.)	52.08 mm (2.050 in.)
	End play		0.06—0.16 mm (0.002—0.006 in.)	0.25 mm (0.010 in.)
	Thickness	1st	22.92—22.97 mm (0.902—0.904 in.)	22.87 mm (0.900 in.)
		2nd	27.92—27.97 mm (1.099—1.101 in.)	27.87 mm (1.097 in.)
Countershaft 1st and 2nd gear distance collar	I.D.		39.95—39.96 mm (1.5728—1.5732 in.)	39.97 mm (1.574 in.)
	O.D.		46.989—47.000 mm (1.8500—1.8504 in.)	46.94 mm (1.848 in.)
	Length	1st	23.03—23.08 mm (0.907—0.909 in.)	—
		2nd	28.03—28.08 mm (1.104—1.106 in.)	—

Item	Measurement	Qualification	Standard or New	Service Limit
Reverse idler gear	I.D.		20.016—20.043 mm (0.7880—0.7891 in.)	20.90 mm (0.832 in.)
	Gear-to-reverse gear shaft clearance		0.036—0.084 mm (0.0014—0.0033 in.)	0.16 mm (0.006 in.)
Synchro ring	Ring-to-gear clearance	Ring pushed against gear	0.70—1.49 mm (0.028—0.059 in.)	0.4 mm (0.016 in.)
Triple cone synchro	Outer synchro ring-to-synchro cone clearance	Ring pushed against gear	0.70—1.19 mm (0.028—0.047 in.)	0.3 mm (0.012 in.)
	Synchro cone-to-gear clearance	Ring pushed against gear	0.50—1.04 mm (0.020—0.041 in.)	0.3 mm (0.012 in.)
	Outer synchro ring-to-gear clearance	Ring pushed against gear	0.95—1.68 mm (0.037—0.066 in.)	0.6 mm (0.024 in.)
Shift fork	Finger thickness		7.4—7.6 mm (0.29—0.30 in.)	——
	Fork-to-synchro sleeve clearance		0.35—0.65 mm (0.014—0.026 in.)	1.0 mm (0.039 in.)
Reverse shift fork	Finger width		13.4—13.7 mm (0.528—0.539 in.)	——
	Fork-to-reverse idler gear clearance		0.20—0.59 mm (0.008—0.023 in.)	1.3 mm (0.051 in.)
Shift arm	I.D.		13.973—14.000 mm (0.5501—0.5512 in.)	——
	Finger width		16.9—17.0 mm (0.665—0.669 in.)	——
	Shift arm-to-shift fork clearance		0.2—0.5 mm (0.008—0.020 in.)	0.62 mm (0.024 in.)
Select lever	Finger width		14.85—14.95 mm (0.585—0.589 in.)	——
Change lever	Shaft-to-select lever clearance		0.05—0.25 mm (0.002—0.010 in.)	0.50 mm (0.020 in.)
	Groove width		15.00—15.10 mm (0.591—0.594 in.)	——
	Shaft-to-shift arm clearance		0.013—0.070 mm (0.0005—0.0028 in.)	0.1 mm (0.004 in.)
M/T differential carrier	Pinion shaft contact area I.D.		18.010—18.028 mm (0.7091—0.7098 in.)	——
	Carrier-to-pinion shaft clearance		0.027—0.057 mm (0.0011—0.0022 in.)	0.1 mm (0.004 in.)
	Driveshaft contact area I.D.		28.025—28.045 mm (1.1033—1.1041 in.)	——
M/T differential pinion gear	Backlash		0.05—0.15 mm (0.002—0.006 in.)	——
	I.D.		18.042—18.066 mm (0.7103—0.7113 in.)	——
	Pinion gear-to-pinion shaft clearance		0.059—0.095 mm (0.0023—0.0037 in.)	0.15 mm (0.006 in.)
M/T differential 80 mm shim	80 mm shim-to-bearing outer race clearance in transmission housing		0—0.10 mm (0—0.039 in.)	Adjust

Standards and Service Limits

Manual Transmission and M/T Differential (6-speed)

Item	Measurement	Qualification	Standard or New	Service Limit
Manual transmission fluid	Capacity	Fluid change	1.5 L (1.6 US qt)	
	Use Honda MTF	Overhaul	1.7 L (1.8 US qt)	
Mainshaft	End play		0.11—0.17 mm (0.004—0.007 in.)	Adjust
	Diameter of ball bearing contact area (transmission housing side)		27.987—28.000 mm (1.1018—1.1024 in.)	27.93 mm (1.100 in.)
	Diameter of 4th/5th gear distance collar contact area		31.984—32.000 mm (1.2592—1.2598 in.)	31.93 mm (1.257 in.)
	Diameter of needle bearing contact area		38.984—39.000 mm (1.5348—1.5354 in.)	38.93 mm (1.533 in.)
	Diameter of ball bearing contact area (clutch housing side)		27.977—27.990 mm (1.1015—1.1020 in.)	27.92 mm (1.099 in.)
	Diameter of bushing contact area		20.80—20.85 mm (0.819—0.821 in.)	20.75 mm (0.817 in.)
	Runout		0.02 mm (0.001 in.) max.	0.05 mm (0.002 in.)
Mainshaft 3rd, 4th, and 5th gear	I.D.		44.009—44.025 mm (1.7326—1.7333 in.)	44.08 mm (1.735 in.)
	End play		0.06—0.16 mm (0.002—0.006 in.)	0.25 mm (0.010 in.)
	Thickness		23.92—23.97 mm (0.942—0.944 in.)	23.80 mm (0.937 in.)
Mainshaft 6th gear	I.D.		40.009—40.025 mm (1.5752—1.5758 in.)	40.08 mm (1.578 in.)
	End play		0.06—0.16 mm (0.002—0.006 in.)	0.25 mm (0.010 in.)
	Thickness		23.92—23.97 mm (0.942—0.944 in.)	23.80 mm (0.937 in.)
Mainshaft 4th/5th gear distance collar	I.D.		32.00—32.01 mm (1.2598—1.2602 in.)	32.02 mm (1.261 in.)
	O.D.		38.989—39.000 mm (1.5350—1.5354 in.)	38.94 mm (1.533 in.)
	Length	A	51.95—52.05 mm (2.045—2.049 in.)	—
		B	24.03—24.08 mm (0.946—0.948 in.)	—
				
Mainshaft 6th gear distance collar	I.D.		28.00—28.01 mm (1.102—1.103 in.)	28.02 mm (1.103 in.)
	O.D.		34.989—35.000 mm (1.3775—1.3780 in.)	34.940 mm (1.3756 in.)
	Length		24.03—24.08 mm (0.946—0.948 in.)	—
Countershaft	Diameter of ball bearing contact area (transmission housing side)		30.020—30.033 mm (1.1819—1.1824 in.)	29.97 mm (1.180 in.)
	Diameter of 1st gear distance collar contact area		39.937—39.950 mm (1.5723—1.5728 in.)	39.883 mm (1.5702 in.)
	Diameter of needle bearing contact area (clutch housing side)		35.000—35.015 mm (1.3780—1.3785 in.)	34.95 mm (1.376 in.)
	Runout		0.02 mm (0.001 in.) max.	0.05 mm (0.002 in.)
	35 mm shim-to-bearing inner race clearance		0.04—0.10 mm (0.0016—0.0039 in.)	Adjust
Countershaft 1st and 2nd gear	I.D.		52.010—52.029 mm (2.0476—2.0484 in.)	52.08 mm (2.050 in.)
	End play		0.06—0.16 mm (0.002—0.006 in.)	0.25 mm (0.010 in.)
	Thickness	1st	22.92—22.97 mm (0.902—0.904 in.)	22.87 mm (0.900 in.)
2nd		27.92—27.97 mm (1.099—1.101 in.)	27.87 mm (1.097 in.)	
Countershaft 1st and 2nd gear distance collar	I.D.		39.95—39.96 mm (1.5728—1.5732 in.)	39.97 mm (1.574 in.)
	O.D.		46.989—47.000 mm (1.8500—1.8504 in.)	46.94 mm (1.848 in.)
	Length	1st	23.03—23.08 mm (0.907—0.909 in.)	—
2nd		28.03—28.08 mm (1.104—1.106 in.)	—	

Item	Measurement	Qualification	Standard or New	Service Limit
Reverse idler gear	I.D.		20.016—20.043 mm (0.7880—0.7891 in.)	20.90 mm (0.823 in.)
	Gear-to-reverse idler gear shaft clearance		0.036—0.084 mm (0.0014—0.0033 in.)	0.16 mm (0.006 in.)
Synchro ring	Ring-to-gear clearance	Ring pushed against gear	0.70—1.49 mm (0.028—0.059 in.)	0.4 mm (0.016 in.)
Double cone synchro and triple cone synchro	Outer synchro ring-to-synchro cone clearance	Ring pushed against gear	0.70—1.19 mm (0.028—0.047 in.)	0.3 mm (0.012 in.)
	Synchro cone-to-gear clearance	Ring pushed against gear	0.50—1.04 mm (0.020—0.041 in.)	0.3 mm (0.012 in.)
	Outer synchro ring-to-gear clearance	Ring pushed against gear	0.95—1.68 mm (0.037—0.066 in.)	0.6 mm (0.024 in.)
Shift fork	Finger thickness		7.4—7.6 mm (0.29—0.30 in.)	———
	Fork-to-synchro sleeve clearance		0.35—0.65 mm (0.014—0.026 in.)	1.0 mm (0.039 in.)
Reverse shift fork	Finger width		13.4—13.7 mm (0.528—0.539 in.)	———
	Fork-to-reverse idler gear clearance		0.20—0.59 mm (0.008—0.023 in.)	1.3 mm (0.051 in.)
Shift arm	I.D.		13.973—14.000 mm (0.5501—0.5512 in.)	———
	Finger width		16.9—17.0 mm (0.665—0.669 in.)	———
	Shift arm-to-shift fork clearance		0.2—0.5 mm (0.008—0.020 in.)	0.62 mm (0.024 in.)
Select lever	Finger width		14.85—14.95 mm (0.585—0.589 in.)	———
Change lever	Shaft-to-select lever clearance		0.05—0.25 mm (0.002—0.010 in.)	0.50 mm (0.020 in.)
	Groove width		15.00—15.10 mm (0.591—0.594 in.)	———
	Shaft-to-shift arm clearance		0.013—0.070 mm (0.0005—0.0028 in.)	0.1 mm (0.004 in.)
M/T differential 80 mm shim	80 mm shim-to-bearing outer race clearance in transmission housing		0—0.10 mm (0—0.039 in.)	Adjust

Standards and Service Limits

Automatic Transmission and A/T Differential

Item	Measurement	Qualification	Standard or New	Service Limit
Automatic transmission fluid	Capacity	Fluid change	2.9 L (3.1 US qt)	
	Use Acura ATF-Z1	Overhaul	6.5 L (6.9 US qt)	
ATF pressure	Line pressure	At 2,000 rpm in P or N	900—960 kPa (9.2—9.8 kgf/cm ² , 130—140 psi)	850 kPa (8.7 kgf/cm ² , 120 psi)
	1st clutch pressure	At 2,000 rpm in 1st gear in S	890—970 kPa (9.1—9.9 kgf/cm ² , 130—140 psi)	840 kPa (8.6 kgf/cm ² , 120 psi)
	2nd clutch pressure	At 2,000 rpm in 2nd gear in S	890—970 kPa (9.1—9.9 kgf/cm ² , 130—140 psi)	840 kPa (8.6 kgf/cm ² , 120 psi)
	3rd clutch pressure	At 2,000 rpm in 3rd gear in S	890—970 kPa (9.1—9.9 kgf/cm ² , 130—140 psi)	840 kPa (8.6 kgf/cm ² , 120 psi)
	4th clutch pressure	At 2,000 rpm in 4th gear in S	890—970 kPa (9.1—9.9 kgf/cm ² , 130—140 psi)	840 kPa (8.6 kgf/cm ² , 120 psi)
	5th clutch pressure	At 2,000 rpm in 5th gear in S	890—970 kPa (9.1—9.9 kgf/cm ² , 130—140 psi)	840 kPa (8.6 kgf/cm ² , 120 psi)
Torque converter	Stall speed Check with vehicle on level ground		2,150 rpm	2,000—2,300 rpm
Clutch	Clearance between clutch end-plate and top disc	1st	1.23—1.43 mm (0.048—0.056 in.)	————
		2nd	0.75—0.95 mm (0.030—0.037 in.)	————
		3rd	0.83—1.03 mm (0.033—0.041 in.)	————
		4th, 5th	0.73—0.93 mm (0.029—0.037 in.)	————
	Clutch return spring free length	1st, 2nd, 3rd	50.8 mm (2.00 in.)	48.8 mm (1.92 in.)
		4th, 5th	33.5 mm (1.32 in.)	31.5 mm (1.24 in.)
	Clutch disc thickness		1.94 mm (0.076 in.)	————
	Clutch plate thickness	1st, 2nd, 3rd	2.0 mm (0.079 in.)	When discolored
		4th, 5th	2.3 mm (0.091 in.)	When discolored
	Clutch wave-plate phase difference		0.07—0.20 mm (0.003—0.008 in.)	0.05 mm (0.002 in.)
	1st, 3rd clutch end-plate thickness	Mark 1	2.3 mm (0.091 in.)	When discolored
		Mark 2	2.4 mm (0.094 in.)	When discolored
		Mark 3	2.5 mm (0.098 in.)	When discolored
		Mark 4	2.6 mm (0.102 in.)	When discolored
		Mark 5	2.7 mm (0.106 in.)	When discolored
		Mark 6	2.8 mm (0.110 in.)	When discolored
		Mark 7	2.9 mm (0.114 in.)	When discolored
		Mark 8	3.0 mm (0.118 in.)	When discolored
		Mark 9	3.1 mm (0.122 in.)	When discolored
		Mark 10	3.2 mm (0.126 in.)	When discolored
Mark 11		3.3 mm (0.130 in.)	When discolored	
Mark 12		3.4 mm (0.134 in.)	When discolored	
2nd clutch end-plate thickness	Mark 1	2.6 mm (0.102 in.)	When discolored	
	Mark 2	2.7 mm (0.106 in.)	When discolored	
	Mark 3	2.8 mm (0.110 in.)	When discolored	
	Mark 4	2.9 mm (0.114 in.)	When discolored	
	Mark 5	3.0 mm (0.118 in.)	When discolored	
	Mark 6	3.1 mm (0.122 in.)	When discolored	
	Mark 7	3.2 mm (0.126 in.)	When discolored	
	Mark 8	3.3 mm (0.130 in.)	When discolored	
	Mark 9	3.4 mm (0.134 in.)	When discolored	

Item	Measurement	Qualification	Standard or New	Service Limit
Clutch (cont'd)	4th, 5th clutch end-plate thickness	Mark 1	2.1 mm (0.083 in.)	When discolored
		Mark 2	2.2 mm (0.087 in.)	When discolored
		Mark 3	2.3 mm (0.091 in.)	When discolored
		Mark 4	2.4 mm (0.094 in.)	When discolored
		Mark 5	2.5 mm (0.098 in.)	When discolored
		Mark 6	2.6 mm (0.102 in.)	When discolored
		Mark 7	2.7 mm (0.106 in.)	When discolored
		Mark 8	2.8 mm (0.110 in.)	When discolored
		Mark 9	2.9 mm (0.114 in.)	When discolored
Mainshaft	Diameter of needle bearing contact area	At stator shaft	22.984—23.000 mm (0.905—0.906 in.)	When worn or damaged
		At 5th gear	51.975—51.991 mm (2.046—2.047 in.)	When worn or damaged
		At 4th gear collar	33.975—33.991 mm (1.3376—1.3382 in.)	When worn or damaged
	I.D. of gears	5th gear	57.000—57.019 mm (2.2441—2.2448 in.)	When worn or damaged
		4th gear	40.000—40.016 mm (1.5748—1.5754 in.)	When worn or damaged
	End play of gears	5th gear ('06-07 models)	0.03—0.11 mm (0.001—0.004 in.)	————
		5th gear ('08-09 models)	0.04—0.10 mm (0.002—0.004 in.)	————
		4th gear	0.10—0.22 mm (0.004—0.009 in.)	————
	41 x 68 mm thrust washer thickness ('06-07 models)	No. 1	6.35 mm (0.250 in.)	When worn or damaged
		No. 2	6.40 mm (0.252 in.)	When worn or damaged
		No. 3	6.45 mm (0.254 in.)	When worn or damaged
		No. 4	6.50 mm (0.256 in.)	When worn or damaged
		No. 5	6.55 mm (0.258 in.)	When worn or damaged
		No. 6	6.60 mm (0.260 in.)	When worn or damaged
	41 x 68 mm thrust washer thickness ('08-09 models)	No. 1	4.450 mm (0.1752 in.)	When worn or damaged
		No. 2	4.475 mm (0.1762 in.)	When worn or damaged
		No. 3	4.500 mm (0.1772 in.)	When worn or damaged
		No. 4	4.525 mm (0.1781 in.)	When worn or damaged
		No. 5	4.550 mm (0.1791 in.)	When worn or damaged
		No. 6	4.575 mm (0.1801 in.)	When worn or damaged
		No. 7	4.600 mm (0.1811 in.)	When worn or damaged
		No. 8	4.625 mm (0.1821 in.)	When worn or damaged
		No. 9	4.650 mm (0.1831 in.)	When worn or damaged
		No. 10	4.675 mm (0.1841 in.)	When worn or damaged
		No. 11	4.700 mm (0.1850 in.)	When worn or damaged
		No. 12	4.725 mm (0.1860 in.)	When worn or damaged
		No. 13	4.750 mm (0.1870 in.)	When worn or damaged
No. 14		4.775 mm (0.1880 in.)	When worn or damaged	
No. 15		4.800 mm (0.1890 in.)	When worn or damaged	
4th gear collar length		66.3—66.4 mm (2.610—2.614 in.)	————	
Length of 4th gear collar flange from end		19.15—19.30 mm (0.754—0.760 in.)	When worn or damaged	
Sealing ring thickness		1.91—1.97 mm (0.0752—0.0776 in.)	1.86 mm (0.0732 in.)	
Width of sealing ring groove		2.025—2.060 mm (0.0797—0.0811 in.)	2.080 mm (0.0819 in.)	
Clutch feed pipe O.D.		7.97—7.98 mm (0.3138—0.3142 in.)	7.95 mm (0.313 in.)	
Clutch feed pipe bushing I.D.		8.000—8.015 mm (0.3150—0.3156 in.)	8.030 mm (0.3161 in.)	

(cont'd)

Standards and Service Limits

Automatic Transmission and A/T Differential (cont'd)

Item	Measurement	Qualification	Standard or New	Service Limit
Countershaft	Diameter of needle bearing contact area	At torque converter housing	36.005—36.015 mm (1.4175—1.4179 in.)	When worn or damaged
		At 4th gear collar	34.982—34.998 mm (1.3772—1.3779 in.)	When worn or damaged
		At reverse gear collar	39.979—40.000 mm (1.5740—1.5748 in.)	When worn or damaged
	I.D. of gears	4th gear	41.000—41.016 mm (1.6142—1.6148 in.)	When worn or damaged
		Reverse gear	46.000—46.016 mm (1.8110—1.8117 in.)	When worn or damaged
	End play of gears	5th gear	0—0.48 mm (0—0.019 in.)	———
		4th gear	0.04—0.12 mm (0.002—0.005 in.)	———
		Reverse gear	0.10—0.25 mm (0.004—0.010 in.)	———
	Distance collar length		54.22—54.30 mm (2.135—2.138 in.)	———
	Reverse selector hub width		25.45—25.65 mm (1.002—1.010 in.)	———
Reverse selector hub O.D.		55.87—55.90 mm (2.200—2.201 in.)	When worn or damaged	
Secondary shaft	Diameter of needle bearing contact area	At 1st gear	39.986—39.999 mm (1.5742—1.5748 in.)	When worn or damaged
		At 2nd gear	39.986—39.999 mm (1.5742—1.5748 in.)	When worn or damaged
		At 3rd gear collar	36.975—36.991 mm (1.4557—1.4563 in.)	When worn or damaged
	I.D. of gears	1st gear	47.000—47.016 mm (1.8504—1.8510 in.)	When worn or damaged
		2nd gear	46.000—46.016 mm (1.8110—1.8117 in.)	When worn or damaged
		3rd gear	43.000—43.016 mm (1.6929—1.6935 in.)	When worn or damaged
	End play of gears	1st gear	0.04—0.12 mm (0.002—0.005 in.)	———
		2nd gear	0.04—0.12 mm (0.002—0.005 in.)	———
		3rd gear	0.10—0.22 mm (0.004—0.009 in.)	———
	37 x 58 mm thrust washer thickness	No. 1	3.900 mm (0.154 in.)	When worn or damaged
		No. 2	3.925 mm (0.155 in.)	When worn or damaged
		No. 3	3.950 mm (0.156 in.)	When worn or damaged
		No. 4	3.975 mm (0.156 in.)	When worn or damaged
		No. 5	4.000 mm (0.157 in.)	When worn or damaged
		No. 6	4.025 mm (0.158 in.)	When worn or damaged
		No. 7	4.050 mm (0.159 in.)	When worn or damaged
		No. 8	4.075 mm (0.160 in.)	When worn or damaged
		No. 9	4.100 mm (0.161 in.)	When worn or damaged
		No. 10	4.125 mm (0.162 in.)	When worn or damaged
		No. 11	4.150 mm (0.163 in.)	When worn or damaged
		No. 12	4.175 mm (0.164 in.)	When worn or damaged
		No. 13	4.200 mm (0.165 in.)	When worn or damaged
		No. 14	4.225 mm (0.166 in.)	When worn or damaged
		No. 15	4.250 mm (0.167 in.)	When worn or damaged
		No. 16	4.275 mm (0.168 in.)	When worn or damaged
		No. 17	4.300 mm (0.169 in.)	When worn or damaged
		No. 18	4.325 mm (0.170 in.)	When worn or damaged
		No. 19	4.350 mm (0.171 in.)	When worn or damaged
		No. 20	4.375 mm (0.172 in.)	When worn or damaged
	40 x 51.5 mm thrust washer thickness	No. 1	4.80 mm (0.189 in.)	When worn or damaged
No. 2		4.85 mm (0.191 in.)	When worn or damaged	
No. 3		4.90 mm (0.193 in.)	When worn or damaged	
No. 4		4.95 mm (0.195 in.)	When worn or damaged	
No. 5		5.00 mm (0.197 in.)	When worn or damaged	
No. 6		5.05 mm (0.199 in.)	When worn or damaged	

Item	Measurement	Qualification	Standard or New	Service Limit	
Secondary shaft (cont'd)	3rd gear collar length		43.9—44.0 mm (1.728—1.732 in.)	——	
	Length of 3rd gear collar flange from end		5.25—5.40 mm (0.207—0.213 in.)	When worn or damaged	
	Sealing ring thickness		1.91—1.97 mm (0.0752—0.0776 in.)	1.86 mm (0.0732 in.)	
	Width of sealing ring groove		2.025—2.060 mm (0.0797—0.0811 in.)	2.080 mm (0.0819 in.)	
	Clutch feed pipe O.D.		3rd clutch feed pipe	11.47—11.48 mm (0.4516—0.4520 in.)	11.45 mm (0.4508 in.)
			1st clutch feed pipe	6.97—6.98 mm (0.2744—0.2748 in.)	6.95 mm (0.2736 in.)
	Clutch feed pipe bushing I.D.		3rd clutch feed pipe	11.500—11.518 mm (0.4528—0.4535 in.)	11.530 mm (0.4539 in.)
			1st clutch feed pipe	7.018—7.030 mm (0.2763—0.2768 in.)	7.045 mm (0.2774 in.)
		ATF guide of sealing ring contact I.D.		29.000—29.021 mm (1.1417—1.1426 in.)	29.05 mm (1.144 in.)
Idler gear shaft	Diameter of needle bearing contact area	End cover side	32.003—32.013 mm (1.2600—1.2604 in.)	When worn or damaged	
	Thickness of cotters		1.39—1.42 mm (0.0547—0.0559 in.)	——	
Reverse idler gear	Reverse idler gear shaft diameter at needle bearing contact area		14.99—15.00 mm (0.5902—0.5906 in.)	When worn or damaged	
	I.D.		20.007—20.020 mm (0.7877—0.7882 in.)	When worn or damaged	
	I.D. of reverse idler gear shaft contact area on transmission housing		14.800—14.818 mm (0.5827—0.5834 in.)	——	
	I.D. of reverse idler gear shaft holder		14.800—14.824 mm (0.5827—0.5836 in.)	When worn or damaged	
ATF pump	ATF pump thrust clearance		0.03—0.06 mm (0.001—0.002 in.)	0.07 mm (0.003 in.)	
	Clearance between ATF pump gear and body	Drive gear	0.210—0.265 mm (0.0083—0.0104 in.)	——	
		Driven gear	0.070—0.125 mm (0.0028—0.0049 in.)	——	
	ATF pump driven gear I.D.		14.016—14.034 mm (0.5518—0.5525 in.)	When worn or damaged	
	ATF pump driven gear shaft O.D.		13.980—13.990 mm (0.5504—0.5508 in.)	When worn or damaged	
Stator shaft	Needle bearing contact I.D.	Torque converter side	27.000—27.021 mm (1.063—1.064 in.)	When worn or damaged	
		ATF pump side	29.000—29.021 mm (1.1417—1.1426 in.)	——	
	Sealing ring contact area I.D.		29.000—29.021 mm (1.1417—1.1426 in.)	29.05 mm (1.144 in.)	
Reverse shift fork	Fork finger thickness		5.90—6.00 mm (0.232—0.236 in.)	5.40 mm (0.213 in.)	
Park gear and pawl			——	When worn or damaged	
Servo body	Shift fork shaft bore I.D.		14.000—14.010 mm (0.5512—0.5516 in.)	——	
	Shift fork shaft valve bore I.D.		37.000—37.039 mm (1.4567—1.4582 in.)	37.045 mm (1.4585 in.)	
Regulator valve body	Sealing ring contact I.D.		29.000—29.021 mm (1.1417—1.1426 in.)	29.05 mm (1.144 in.)	