# GI-2

# **General Information**

## **General Information**

### FUNDAMENTAL PROCEDURES SYMBOLS

Symbol	Meaning	Туре
OIL	Apply oil	New engine oil, gear oil, etc. as appro- priate
BRAKE FLUID	Apply brake fluid	Only brake fluid
ATF	Apply automatic transmission fluid (AT- F)	Only ATF
امانه (مسئولیت محدود)	Apply grease شرکت دیجیتال خودرو س	Appropriate grease
ميركاران Sealant الران	اولین سامانه در حیتال زم Apply sealant	Appropriate sealant
P	Apply petroleum jelly	Appropriate petroleum jelly

### 

Whenever special oil or grease is required, it will be identified in figure.

### NOTICE, CAUTIONS AND WARNINGS

The following items contain general procedures you should always follow when working on a vehicle:

### **PROTECTION OF VEHICLE**



LA6C002A

### A WORD ABOUT SAFETY

1. Block the wheels.

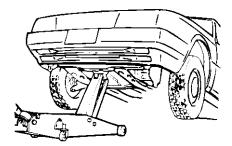
## WWW.DIGITALKHODRO.COM

## 021 62 99 92 92

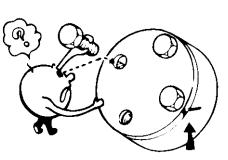
GI-3

# **General Information**

- 2. Use only the specified jacking positions.
- 3. Support the vehicle with safety stands.



DISASSEMBLY



LA6C006A

LA6C007A





تا LA6C004A رو سامانه (مسئولیت محدود)

SPECIAL SERVICE TOOLS (SST'S)

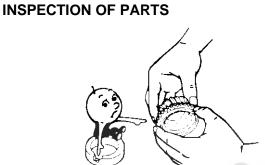


BA2C010J

**REMOVAL OF PARTS** 



LA6C005A



ARRANGEMENT OF PARTS



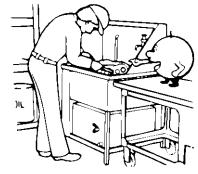


BA2C010N

**CLEANING PARTS FOR REUSE** 

REASSEMBLY

1. Oil seals

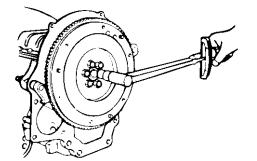


LA6C008A

## WWW.DIGITALKHODRO.COM

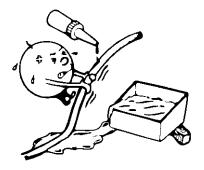
# GI-4

- 2. O-rings
- 3. Cotter pins
- 4. Gaskets
- 5. Lock washers
- 6. Nylon nuts



### **DEPENDING ON LOCATION:**

- 1. Sealant should be applied or new gaskets installed.
- 2. Oil should be applied to the moving components of parts.
- 3. Specified oil or grease should be applied at the appropriate locations (such as oil seals) before reassembly.



**General Information** 

BA2C010S

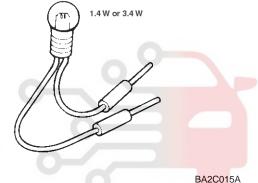
# ELECTRICAL TROUBLESHOOTING TOOLS (TEST LIGHT)

The test light is used for simple voltage checks and in checking for short circuits.

### 

BA2C010P

When checking the engine control module (ECM), never use a bulb exceeding 3.4W.



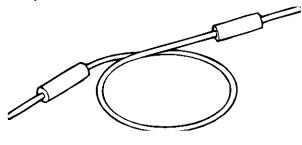
# اولين ساه

TROUBLESHOOTING

#### ELECTRICAL TOOLS(JUMPER WIRE)

### 

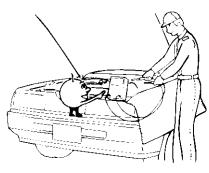
Do not connect a jumper wire from the power source line to a body ground. Such a connection may cause damage to harnesses or electronic components.



BA2C015B

### VOLTMETER

### ADJUSTMENTS



BA2C010R

LA6C009A

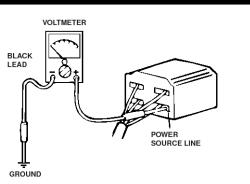
## WWW.DIGITALKHODRO.COM

**RUBBER PARTS AND TUBING** 

## 021 62 99 92 92

**GI-5** 

# **General Information**

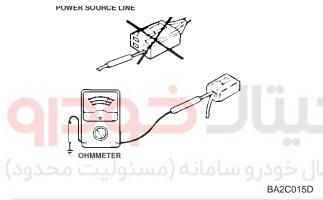


LA6C010A

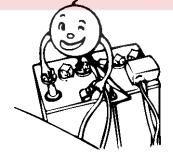
### OHMMETER

#### 

Do not attempt to connect the ohmmeter to any circuit in which voltage is applied. Such a connection may damage the ohmmeter.



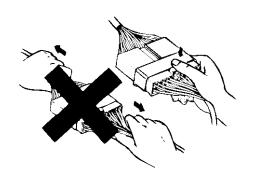




BA2C015E

### < REMOVAL OF CONNECTOR >

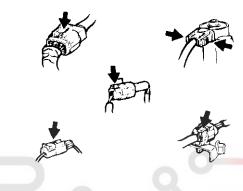
1. Never pull on the wiring harness when disconnecting connectors.



BA2C015F

BA2C015G

2. Connectors can be removed by pressing or pulling lock lever.



#### < LOCKING A CONNECTOR >

Listen for a click when locking connectors. This sound indicates that they are securely locked.



BA2C015H

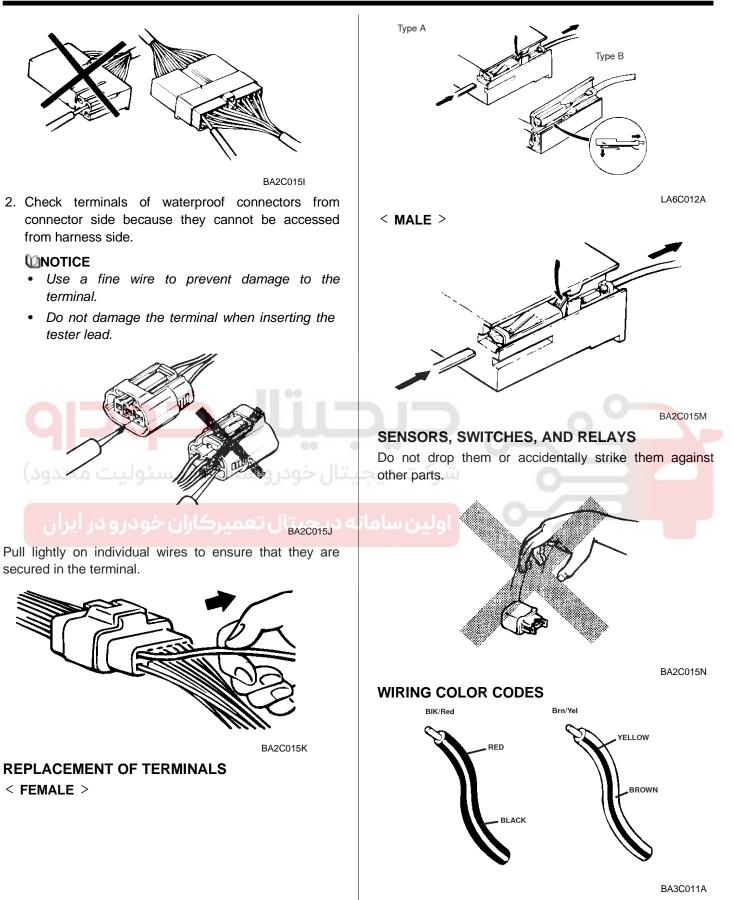
#### < INSPECTION OF CONNECTORS >

1. When a tester is used to check for continuity or to measure voltage, insert tester probe from wire harness side.

### 021 62 99 92 92

**General Information** 

# GI-6



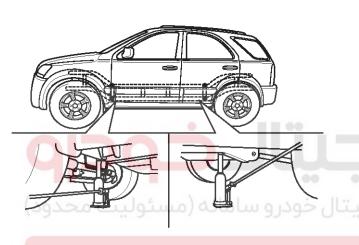
## WWW.DIGITALKHODRO.COM

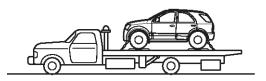
**GI-7** 

## **General Information**

CODE	COLOR	CODE	COLOR
В	BLACK	Р	PINK
BR	BROWN	R	RED
G	GREEN	S	SILVER(LIGHT BLUE)
GY	GRAY	Т	TAWNY
L	BLUE	V	VIOLET
LG	LIGHT GREEN	W	WHITE
0	ORANGE	Y	TELLOW

# VEHICLE LIFT (2-SUPPORT TYPE) AND SAFETY STAND POSITIONS







سامانه دیجیتال تعمیرکاران خودرو در ایران

LAAC020A

TOWING

#### LAAC030A

If emergency towing is necessary, we recommend having it done by an authorized KIA dealer or a commercial tow-truk service. Proper lifting and towing procedures are necessary to prevent damage to the vehicle.

It is recommended that your vehicle be towed with a wheel lift or flatbed eguipment. Do not tow with a slingbelt. Our company has not approved a slingbelt towing procedure.

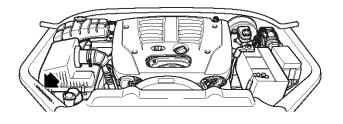
On  $4 \times 4$  vehicles, it is recommended that your vehicle be towed with a wheel lift and do llies or flatbed ehuipment with all the wheels off the ground.

#### VIN LOCATIONS

## WWW.DIGITALKHODRO.COM

# GI-8

# **General Information**



LAAC040A

### VIN SYSTEM (GENERAL)

VEHICLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Diesel 2.5 L TCI MT	к	Ν	A	J	С	5	2	1	5	2	5	×	×	×	×	×	×
Gasoline 2.4L MT	к	Ν	A	J	С	5	2	2	5	2	5	×	×	×	×	×	×
Gasoline 3.5L A- T	К	Ν	A	J	С	5	2	3	8	2	5	×	×	×	×	×	×

### 1 - 3 : World Manufacturer's Identification

KNA = Kia Motors Corporation

#### 4 - 5 : Vehicle Type JC = Kia SORENTO

- 6 -7 : Body Type
- اولین سامانه دیجیتال تعمیرکاران خودر s2 = 4 door wagon
- 8 : Engine Type
- 1 = 2.5L Diesel, 2 = 2.4L Gasoline, 3 = 3.5L Gasoline
- 9 : Transmission type
- 5 = 5 speed manual (4×), 8 = 4 speed automatic (4 × 4)
- 10 : Model Year
- 2 = 2002, 3 = 2003
- 11 : Plant Location
- 5 = Hwasung Plant

12 - 17 : Sequential Number

### VIN SYSTEM (MIDDLE EAST)

VEHICLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Diesel 2.5 L TCI MT	К	N	А	J	С	5	2	1		2	5	×	×	×	×	×	×
Gasoline 2.4L MT	К	N	А	J	С	5	2	2		2	5	×	×	×	×	×	×
Gasoline 3.5L A- T	к	N	А	J	С	5	2	3		2	5	×	×	×	×	×	×



## GI-9

# **General Information**

1 - 3	:	World Manufacturer's Identification
-------	---	-------------------------------------

KNA = Kia Motors Corporation

- 4 5 : Vehicle Type
- JC = Kia SORENTO
- 6 -7 : Body Type
- 52 = 4 door Wagon
- 8 : Engine Type
- 1 = 2.5L Diesel, 2 = 2.4L Gasoline, 3 = 3.5L Gasoline
- 9 : Check Digit
- 10 : Model Year
- 2 = 2002, 3 = 2003
- 11 : Plant Location
- 5 = Hwasung Plant
- 12 17 : Sequential Number

### VIN SYSTEM (EUROPE)

VEHICLE	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	0
Diesel 2.5 L T- CI MT	-	к	N	Е	J	С	5	2	1	5	2	5	×	×	×	×	×	×	-
Diesel 2.5L T- CI AT		к	N	E	J	С	5	2	1	8	2	5	×	×	×	×	×	×	-
Gasolin <mark>e</mark> 2.4L MT	<u>.</u>	к	N)	ماله	ل سار	درو	5	2	2	5	2 شرک	5	×	×	×	×	×	×	
Gasoline 3.5L AT	-	к	N	E	J	С	5	2	3	8	2	5	×	×	×	×	×	×	-

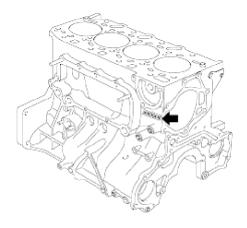
0 : "-" symbol according to No.3.1.2 sentence 4 of 76/114/EEC

### 1 - 3 : World Manufacturer's Identification

- KNE = Kia Motors Corporation
- 4 5 : Vehicle Type
- JC = Kia SORENTO
- 6 7 : Body Type
- 52 = 4 Door Wagon
- 8 : Engine Type
- 1 = 2.5L Diesel, 2 = 2.4L Gasoline, 3 = 3.5L Gasoline
- 9 : Transmission type
- 5 = 5 speed manual (4  $\times$  4), 8 = 4 speed automatic (4  $\times$  4)
- 10 : Model Year or Dummy "0"
- 2 = 2002, 3 = 2003
- 11 : Plant location
- 5 = Hwasung Plant
- 12 17 : Sequential Number

### ENGINE NUMBER LOCATIONS





LAAD050A

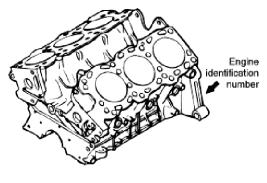
## WWW.DIGITALKHODRO.COM

### 021 62 99 92 92

## GI-10

# **General Information**

3.5 V6 Gasoline



LAAD050C

2.4 l4 Gasoline



## **General Information**

### ENGLISH/METRIC CONVERSION TABLE

Multiply	by	to get equivalent number of:	Multiply	by	to get equivalent number of:		
	Length			Accelerati	ion		
Inch (in) Foot (ft)	25.4 0.3048	millimeters (mm) meters (m)	Foot/sec <sup>2</sup> Inch/sec <sup>2</sup>	0.3048 0.0254	meter/sec² (m/s²) meter/sec² (m/s²)		
Yard	0.9144	meters (m)	monrood	0.0234 Torque	12 <b>1</b> 802		
Mile	1.609	Kilometers (km)	Inch-pound	0.11298	newton-meters (N·m		
Mile	1.003	Kilometers (Kill)	Foot-pound	1.3558	newton-meters (N·m		
	Area			Power			
Inch <sup>2</sup> (in <sup>2</sup> )	645.2	millimeters <sup>2</sup> (mm <sup>2</sup> )	Horsepower (HP)	0.746	kilowatts (kw)		
	6.45	centimeters <sup>2</sup> (cm <sup>2</sup> )		Pressu			
Foot (ft <sup>2</sup> )	0.0929	meters <sup>2</sup> (m <sup>2</sup> )	Pounds/inch² (psi)	6.895	kilopascals (kPa)		
Yard	0.8361	meters <sup>2</sup> (m <sup>2</sup> )	(F - 7				
	Volume			Energ	iy		
Inch <sup>a</sup> (in <sup>a</sup> )	16387	mm <sup>3</sup>	Foot-pound	1.3558	joules (J)		
	16.387	cm <sup>3</sup>	Kilowatt-hour	3,600,000	joules (J)		
	0.0164	liters (I)					
Quart (qt)	0.9464	liters (I)					
Gallon	3.7854	liters (I)	شردت ديج				
Yard	0.7646	meters <sup>a</sup> (m <sup>a</sup> )					
	Mass	ه دیجیتال تعم	اولين سامان	Fuel perfor	mance		
Pound (Ib)	0.4536	kilograms (kg)	Miles/gal (mpg)	0.4251	kilometers/liter (km/l)		
Ton	907.18	kilograms (kg)					
	FORCE			Velo	city		
Kilogram	9.807	newtons (N)	Miles/hour (mph)	1.6093	kilometers/hour		
Ounce (oz)	0.2780	newtons (N)					
Pound (Ib)	4.448	newtons (N)					
			erature				
	convert fahrenh			onvert celsius			
	perature to cels		to fahrer		ure, use formula:		
tempe	erature, use forn C= 5/9 (F-32)	nula:		F= 9/5 C	+ 32		

LAAD060A

## 021 62 99 92 92

**GI-11** 

### 021 62 99 92 92

**General Information** 

# GI-12

### UNITS

ft-lb or in-lb (N⋅m)	Torque
rpm	Rotational speed
A	Amperes
rpm ·····	Volts
Ω	Resistance
psi (kPa) ·····	Pressure
inHg (mmHg) ·····	Pressure (usually
	negative vacuum)
W	Watts
	(electrical power)
US qt (liters)·····	Volume
in (mm)	Length

#### LAAC070A

### ABBREVIATIONS

ABDC After bottom dead center   ABS Anti-lock braking system   A/C Air conditioner   ACC Accessories   A/T Automatic transaxle   ATDC Atter top dead center   ATF Automatic transmission   fluid BBDC   BBDC Before bottom dead   CMP Camshaft position sensor   CKP Crankshaft position sensor   DIS Distributorless ignition system   DLC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force   distribution Engine control module   ECT Engine control module   ECT Engine control module   ECT Engine colant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IAT Intake			1
A/C Air conditioner   ACC Accessories   A/T Automatic transaxle   ATDC After top dead center   ATF Automatic transmission   fluid BBDC   BBDC Before bottom dead   center Before top dead center   CMP Carnshaft position sensor   CKP Crankshaft position sensor   DIS Distributorless ignition system   DLC Data link connector   DOHC Data link connector   DOHC Data link connector   DOHC Electronic brake-force   distribution Engine coolant   ECM Engine coolant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature	ABDC	After bottom dead center	
ACC Accessories   A/T Automatic transaxle   ATDC After top dead center   ATF Automatic transmission   fluid BBDC   BBDC Before bottom dead   center Before top dead center   CMP Camshaft position sensor   CKP Crankshaft position sensor   DIS Distributorless ignition system   DLC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force distribution   ECM Engine control module   ECT Engine control module   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Int	ABS ·····	Anti-lock braking system	
A/T Automatic transaxle   ATDC After top dead center   ATF Automatic transmission   fluid BBDC   BBDC Before bottom dead   center Before top dead center   CMP Camshaft position sensor   CKP Crankshaft position sensor   DIS Distributorless ignition system   DLC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force   distribution Engine coolant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IA Intake air temperature   IGN Ignition   IN Intake air temperature	A/C	Air conditioner	
ATDC After top dead center   ATF Automatic transmission   ATF Automatic transmission   BBDC Before bottom dead   center Before top dead center   CMP Camshaft position sensor   CKP Crankshaft position sensor   DIS Distributorless ignition system   DLC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force distribution   clipie control module Ergine control module   ECT Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	ACC ·····	Accessories	
ATF Automatic transmission fluid   BBDC Before bottom dead center   BTDC Before top dead center   CMP Camshaft position sensor   CKP Crankshaft position sensor   DIS Distributorless ignition system   DLC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force distribution   ECM Engine control module   ECT Engine colant temperature   E/L Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake air temperature	A/T	Automatic transaxle	
Alternationate definitional data initiational data initiatinitiational data initininitiational data initiational data initiat	ATDC	After top dead center	
BBDC Before bottom dead center   BTDC Before top dead center   CMP Camshaft position sensor   CKP Crankshaft position sensor   DIS Distributorless ignition system   DLC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force distribution   ECM Engine control module   ECT Engine colant temperature   E/L Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	ATF	Automatic transmission	
BTDC Center   Before top dead center Camshaft position sensor   CKP Crankshaft position sensor   DIS Distributorless ignition system   DLC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force distribution   ECM Engine control module   ECT Engine colant temperature   E/L Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake		fluid	
BTDC Before top dead center   CMP Camshaft position sensor   CKP Crankshaft position   DIS Distributorless ignition   system Data link connector   DOHC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force   distribution Engine control module   ECT Engine colant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	BBDC	Before bottom dead	
CMP Camshaft position sensor   CKP Crankshaft position   DIS Sensor   DIC Distributorless ignition   System Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force   distribution Engine control module   ECT Engine coolant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake		center	
CMP Camshaft position sensor   CKP Crankshaft position   DIS Sensor   DIC Distributorless ignition   System Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force   distribution Engine control module   ECT Engine coolant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	BTDC ·····	Before top dead center	
CKP Crankshaft position sensor   DIS Distributorless ignition system   DLC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force distribution   ECM Engine control module   ECT Engine coolant temperature   E/L Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	CMP		
DISsensorDISDistributorless ignition systemDLCData link connectorDOHCDual overhead CamshaftEBDElectronic brake-force distributionECMEngine control moduleECTEngine coolant temperatureE/LElectrical loadEXExhaustGNDGroundHLAHydraulic lash adjusterHO2SHeated oxygen sensorIATIntake air temperatureIGNIgnitionINIntake	СКР		• ••
DLC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force   distribution Engine control module   ECT Engine coolant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	(	sensor	1.++
DLC Data link connector   DOHC Dual overhead Camshaft   EBD Electronic brake-force   distribution Engine control module   ECT Engine coolant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	DIS	Distributorless ignition	ت دیجینا
DOHC Dual overhead Camshaft   EBD Electronic brake-force   distribution Engine control module   ECT Engine coolant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   Ignition Intake			
EBD Electronic brake-force   distribution   ECM Engine control module   ECT Engine coolant   temperature   E/L Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	DLC	Data link connector	
EBD Electronic brake-force   distribution   ECM Engine control module   ECT Engine coolant   temperature   E/L Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	DOHC ·····	Dual overhead Camshaft	· سامانه د
ECM Engine control module   ECT Engine coolant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake			
ECT Engine coolant   temperature Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake		distribution	
E/L Eilectrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	ECM	Engine control module	
E/L Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake	ECT ·····	Engine coolant	
E/L Electrical load   EX Exhaust   GND Ground   HLA Hydraulic lash adjuster   HO2S Heated oxygen sensor   IAT Intake air temperature   IGN Ignition   IN Intake		0	
GND Ground HLA Hydraulic lash adjuster HO2S Heated oxygen sensor IAT Intake air temperature IGN Intake	E/L		
HLA Hydraulic lash adjuster HO2S Heated oxygen sensor IAT Intake air temperature IGN Intake	EX	Exhaust	
HO2S Hydratio tach adjuster HO2S Heated oxygen sensor IAT Intake air temperature IGN Ignition IN Intake	GND ·····	Ground	
HO2S Heated oxygen sensor IAT Intake air temperature IGN Ignition IN Intake	HLA ·····	Hydraulic lash adjuster	
IAT ·····Intake air temperature IGN ·····Ignition IN ·····	HO2S		
IGN ····· IN ·····	IAT	, .	
IN Intake	IGN	•	
INT Intermittent	IN	0	
	INT	Intermittent	

LA6C015A

**GI-13** 

## **General Information**

474	LA6C015B	
	catalyst	
WU-TWC ·····	Warm-up three-way	
TWC ·····	Three way catalyst	
TPS ·····	Throttle position sensor	
TNS	Tail number side	
TDC	Top dead center	
TCS ·····	Traction control unit	
ТСМ	Transaxle control module	
SW	Switch	
SST ·····	Special service tool	
	system	
SFI	Sequential fuel injection	
BH	Right hand	
P/W	Power window	
PRC	Pressure regulator control	
P/S	Power steering	
	ventilation	
PCV	Positive crankcase	
ON	Switch on	
OFF	Switch off	
OBD ·····	On-board diagnosis	
M/T	Manual transaxle	
M/S	Manual steering	
MIL	Malfunction indicator light	
MAF	Mass air flow	
M	Motor	
LH	Left hand	
IAC ·····	Idle air control	

## GI-14

## **General Information**

### MAINTENANCE SCHEDULE

MAINTENANCE		Nu	mber of mo	nths or drivin	ng distance,	whichever co	omes first						
INTERVALS	Months	12	24	36	48	60	72	84	96				
	Milesx1,000	10	20	30	40	50	60	70	80				
MAINTENANCE ITEM	Kmx1,000	15	30	45	60	75	90	105	120				
Drive belts		I	I	1	I	I	I	I	I				
Factor of and Factor of films	Gasoline	R	R	R	R	R	R	R	R				
Engine oil and Engine oil filter	Diesel	R	R	R	R	R	R	R	R				
Manual transmission fluid		I	I	1	I	I	I	I	1				
As the transmission divid	For europe	I	I	1	I	I	R	I	1				
Auto transmission fluid	Except europe	I	I	1	I	I	I	I	1				
Front and rear	With LSD	Inspe	ct every 20,0	000 km (12,5	00 miles) an	d replace eve	ry 40,000 k	m (25,000 m	iles)				
differential fluid	W/out LSD					d replace eve							
Transfer case fluid (4WD)		I	I	1	I	I	I	I	1				
Engine timing belt					I		R						
	Gasoline		R		R		R		R				
Air cleaner element	Diesel		R		R		R		R				
Canada a luma	Leaded			Replace	every 40,00	0 km (25,000 i	miles)	. <u> </u>	1				
Spark plugs	Unleaded		Replace every 100,000 km (60,000 miles)										
Cooling system (Including coolant level adjust	ment)	I.	1	1	I	I	I	I	I				
Engine coolant		Repla		) months or 1	00.000km: a	fter that repla	ce everv 24	months or 4	0.000km				
Vapor hose and fuel filler c	ар				I		, I	0	1				
Vacuum and crankcase vent	-		1					-					
	Gasoline				B				B				
Fuel filter	Diesel	، سامان	SBC D	بحيثال	S CRO L	ŵ	R		R				
Fuel lines and hoses			1		1		- I		1				
Battery condition					1				1				
All electrical systems	کاران خر	تعميره	يحيبتال	امانه د ا	ولين س				1				
Brake lines, Hoses and con	nnections	1	1	-	1	1	1	1	1				
Brake pedal			1		1		1	*	1				
Parking brake		I	l	1		I	I		1				
		· · · · · · · · · · · · · · · · · · ·						· · · · · · · · · · · · · · · · · · ·					
Ciulon pedal		I		1		1	1	1	· ·				
	1			· ·			-		1				
Brake and clutch fluid		I	I	1									
Brake and clutch fluid Disc brake		l			I			 I	I				
Brake and clutch fluid Disc brake Power steering fluid	1 hoses	1						I	1				
Brake and clutch fluid Disc brake Power steering fluid Power steering system and		I			 	I	1	I	I				
Brake and clutch fluid Disc brake Power steering fluid Power steering system and Tire (Pressure & Tread wea	ar)	1			 		1	1	1				
Clutch pedal Brake and clutch fluid Disc brake Power steering fluid Power steering system and Tire (Pressure & Tread wea Front suspension ball joints Air conditioner refrigerant (	ar) s	1			 	I		     	I				

I : Inspect and if necessary, adjust, correct, clean or replace.

R : Replace or change

LAAD090A

# **General Information**

GI-15

#### Μ

#### AINTENANCE UNDER SEVERE USAGE CONDITIONS

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

R : Replace I : Inspect and if necessary, adjust, correct, clean or replace

MAINTENANCE	MAINTENANCE ITEM		Maintenance intervals	Driving condition
Engine oil and filter		R	Every 7,500 km (5,000 Miles)	A, B, C, F, H
Air cleaner element		R	More frequently	C, E
Timing belt	Gasoline ENG.	R	Every 60,000 km (40,000 Miles) or 48 months	D, E, F, G
Spark plug	Gasoline ENG.	R	More frequently	В, Н
Automatic transmission fluid	For europe	R	Every 45,000 km (30,000 Miles)	A, C, E, F, G, H, I
Automatic transmission nulu	Except europe	R	Every 40,000 km (25,000 Miles)	A, C, E, F, G, H, I
Manual transmission fluid		R	Every 100,000 km (60,000 Miles)	C, D, E, G, H, I, J
Transfer case fluid (4WD)		R	Every 100,000 km (60,000 Miles)	C, E, G, I
Bear differential fluid	Without LSD	R	Every 40,000 km (25,000 Miles)	C, E, G, I
near uncrenual liulu	With LSD	R	Every 80,000 km (50,000 Miles)	0, 2, 0, 1

#### Severe Driving Conditions

- A : Repeated short distance driving
- B : Extensive idling
- C : Driving in dusty, rough roads
- D : Driving in areas using salt or other corrosive materials or in very cold weather E : Driving in sandy areas
- F : More than 50% driving in heavy city traffic during hot weather above 32°C (90°F)
- G : Driving in mountainous arears.
- H : Towing a trailer
  - I : Driving for patrol car, taxi, commercial car or vehicle towing J : Driving over 170 km/h (106 Mile/h)

سلمانه ديرجي تاليتهم بيكابان خمديرمدير ليران

LAAC090B