

## GROUP 01

01

## SCHEDULED MAINTENANCE SERVICES

## CONTENTS

Maintenance .....	01-2
Automatic Transmission Fluid .....	01-7
Brake Lines and Connections .....	01-7
Changing Engine Oil .....	01-2
Changing Engine Oil Filter .....	01-5
Chassis/Body Nuts and Bolts .....	01-7
Cooling System .....	01-7
Disc Brakes .....	01-7
Drum Brakes .....	01-7
Engine Accessory Drive Belts .....	01-6
Engine Oil Viscosity .....	01-5
Environmental Safety .....	01-5
Front Differential Fluid .....	01-6
Fuel Line and Hoses .....	01-7
Idle Speed .....	01-7
Locks and Hinges .....	01-7
Maintenance for Off-Road Driving .....	01-2
Maintenance Service Schedules .....	01-2
Manual Transmission Fluid .....	01-6
Rear Differential Fluid .....	01-7
Selecting Engine Oil .....	01-5
Spark Plugs .....	01-6
Transfer Case Oil .....	01-6
Specifications .....	01-7
Refill Capacities for 2.0L Engine .....	01-7
Service Parts .....	01-7
Tire Pressure .....	01-7

## MAINTENANCE

The scheduled maintenance services are based on the following:

1. Vehicle travel distance with passenger and/or cargo will be within the distance limits specified on the vehicle certification label located on the edge of the driver's door.
2. The road surface on which the vehicle travels is reasonable and the driving is within the legal operating limits.
3. Unleaded gasoline is used for the vehicle.

## MAINTENANCE SERVICE SCHEDULES

Two maintenance service schedules are provided. Follow "Schedule 1 - Normal Maintenance" if the vehicle is operated mainly where none of the following conditions apply. If any of the following conditions apply, follow "Schedule 2 - Severe Maintenance."

- Repeated short distance driving
- Driving in dusty conditions
- Driving with an extensive use of brakes
- Driving in areas where salt or other corrosive materials are being used
- Driving on rough or muddy roads
- Extended periods of idling or low speed operation
- Driving for a prolonged period in cold temperatures and/or extremely humid climates

*After 60 months or 60,000 miles (96 000 km) continue to follow the prescribed maintenance intervals*

## MAINTENANCE FOR OFF-ROAD DRIVING

Frequent maintenance of the following is required whenever the vehicle is driven off-road through mud, water or sand:

- Air cleaner filter
- Brake lining and drums
- Brake lines and hoses
- Brake pads and discs
- Clutch housing
- Differential, transaxle and transfer oil
- Drive shafts and halfshafts
- Steering linkage
- Wheel bearing grease and free running hub grease

## CHANGING ENGINE OIL

Use engine oil of proper viscosity only. Always use SG or SH designated engine oil.

**Capacity: 4.375 quarts (4.14L)**

Schedule 1 - Normal Maintenance

MAINTENANCE INTERVALS  MAINTENANCE ITEM		Number of months or miles (kilometers), whichever comes first								
		Months	7.5	15	22.5	30	37.5	45	52.5	60
		Miles	7,500	15,000	22,500	30,000	37,500	45,000	52,500	60,000
		(km)	(12 000)	(24 000)	(36 000)	(48 000)	(60 000)	(72 000)	(84 000)	(96 000)
Drive belts (tension)						I				I
Engine oil		R	R	R	R	R	R	R	R	R
Engine oil filter		R	R	R	R	R	R	R	R	R
Engine timing belt (1)	Outside California	Replace every 60,000 miles (96 000 km)								
	California	Inspect at 60,000 miles (96 000 km) and 90,000 miles (144 000 km)(2) Replace every 105,000 miles (168 000 km)								
Air cleaner element						R				R
Spark plugs						R				R
Transfer case oil (if equipped)			I			R, I		I		R
Manual (automatic) transmission fluid		I	I	I	R	I	I (R)	I	I	I
Front differential fluid (if equipped)		I	I	I	R	I	I	I	I	I
Rear differential fluid		I	I	I	R	I	I	I	I	I
Cooling system						I				I
Engine coolant						R				R
PCV valve										I
Ignition wires										I
Idle speed						I (2)				I (1)
Fuel filter						R (1)				R (1)
Fuel line and hoses						I (2)				I
Fuel line and hoses (California)						I (2)				I (2)
Hose and tube for emission	Outside of California									I
	California									I (2)
		Replace every 105,000 miles (168 000 km)								
Brake lines and connections						I				I
Drum brakes						I				I
Disc brakes			I			I				I
Steering operations and linkage						I				I
Front suspension ball joints						I				I
Driveshaft dust boots			I			I		I		I
Front and rear driveshaft u-joints			L			L		L		L
Chassis/body nuts and bolts						I				I
Exhaust system heat shield						I				I
All locks and hinges		L	L	L	L	L	L	L	L	L
Air conditioner refrigerant (if equipped)		Inspect refrigerant amount annually								
Air conditioner compressor (if equipped)		Inspect operation annually								

- I: Inspect and, if necessary, adjust, correct, clean or replace.
- L: Lubricate.
- R: Replace or change.

- (1) This maintenance is required in all states except California. However, we recommend that it also be performed on California vehicles.
- (2) This maintenance is recommended by Kia. However, it is not necessary for emission warranty coverage or manufacturer recall liability.

# 01-4 SCHEDULED MAINTENANCE SERVICES

## Schedule 2 - Severe Maintenance

MAINTENANCE INTERVALS  MAINTENANCE ITEM		Number of months or miles (kilometers), whichever comes first												
		Months	5	10	15	20	25	30	35	40	45	50	55	60
		Miles (x 1,000)	5	10	15	20	25	30	35	40	45	50	55	60
		(km x 1,000)	(8)	(16)	(24)	(32)	(40)	(48)	(56)	(64)	(72)	(80)	(88)	(96)
Drive belts (tension)							I						I	
Engine oil		R	R	R	R	R	R	R	R	R	R	R	R	
Engine oil filter		R	R	R	R	R	R	R	R	R	R	R	R	
Engine timing belt (1)		Outside California	Replace every 60,000 miles (96 000 km)											
		California	Inspect at 60,000 miles (96 000 km) and 90,000 miles (144 000 km)(2) Replace every 105,000 miles (168 000 km)											
Air cleaner element				I (2&3)			R			I (2&3)			R	
Spark plugs							R						R	
Transfer case oil (if equipped)		I	I	R	I	I	R	I	I	R	I	I	R	
Manual (automatic) transmission fluid		I (1)	I (1)	R (1)	I (1)	I (R)	R (1)	I (1)	I (1)	R (1)	I (R)	I (1)	R (1)	
Front differential fluid (if equipped)		I	I	R	I	I	R	I	I	R	I	I	R	
Rear differential fluid		I	I	R	I	I	R	I	I	R	I	I	R	
Cooling system							I						I	
Engine coolant							R						R	
PCV valve													I	
Ignition wires													I	
Idle speed							I (2)						I (1)	
Fuel filter							R (1)						R (1)	
Fuel line and hoses							I (2)						I	
Fuel line and hoses (California)							I (2)						I (2)	
Hose and tube for emission		Outside of California											I	
		California											I (2)	
		Replace every 105,000 miles (168 000 km)												
Brake lines and connections							I						I	
Drum brakes							I						I	
Disc brakes				I			I			I			I	
Steering operations and linkage							I						I	
Front suspension ball joints							I						I	
Driveshaft dust boots							I						I	
Chassis/body nuts and bolts				I			I			I			I	
Exhaust system heat shield							I						I	
All locks and hinges		L	L	L	L	L	L	L	L	L	L	L	L	
Air conditioner refrigerant (if equipped)		Inspect refrigerant amount annually												
Air conditioner compressor (if equipped)		Inspect operation annually												
Front and rear driveshaft u-joints			L		L		L		L		L		L	

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

L: Lubricate.

R: Replace or change.

(1) This maintenance is required in all states except California. However, we recommend that it also be performed on California vehicles.

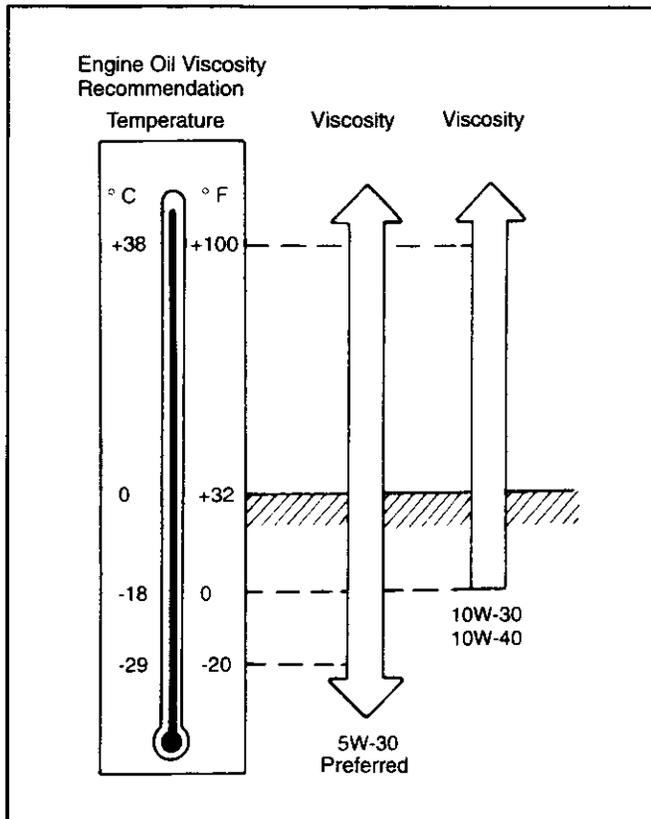
(2) This maintenance is recommended by Kia. However, it is not necessary for emission warranty coverage or manufacturer recall liability.

(3) Inspect, and if necessary, replace.

## ENGINE OIL VISCOSITY (Thickness)

The viscosity of engine oil affects engine operation and fuel economy. Engine oil flow in cold-weather operation is delayed.

- Low viscosity (5W-30) engine oil should be used in cold weather.
- High viscosity (10W-30 or 10W-40) engine oil should be used in hot weather.



## SELECTING ENGINE OIL

1. Consider the temperature conditions the vehicle will be operating in.
2. Select the oil viscosity from SAE recommended in the figure.

\* **Notice**  
Use of improper engine oil could result in engine damage.

## CHANGING ENGINE OIL FILTER

Capacity: 0.21 quart (0.20L)

### Removal

1. Drain old engine oil.
2. Remove the old engine oil filter cartridge by turning it counterclockwise.

### Installation

1. Lightly oil gasket with clean engine oil.
2. Install clean engine oil filter.

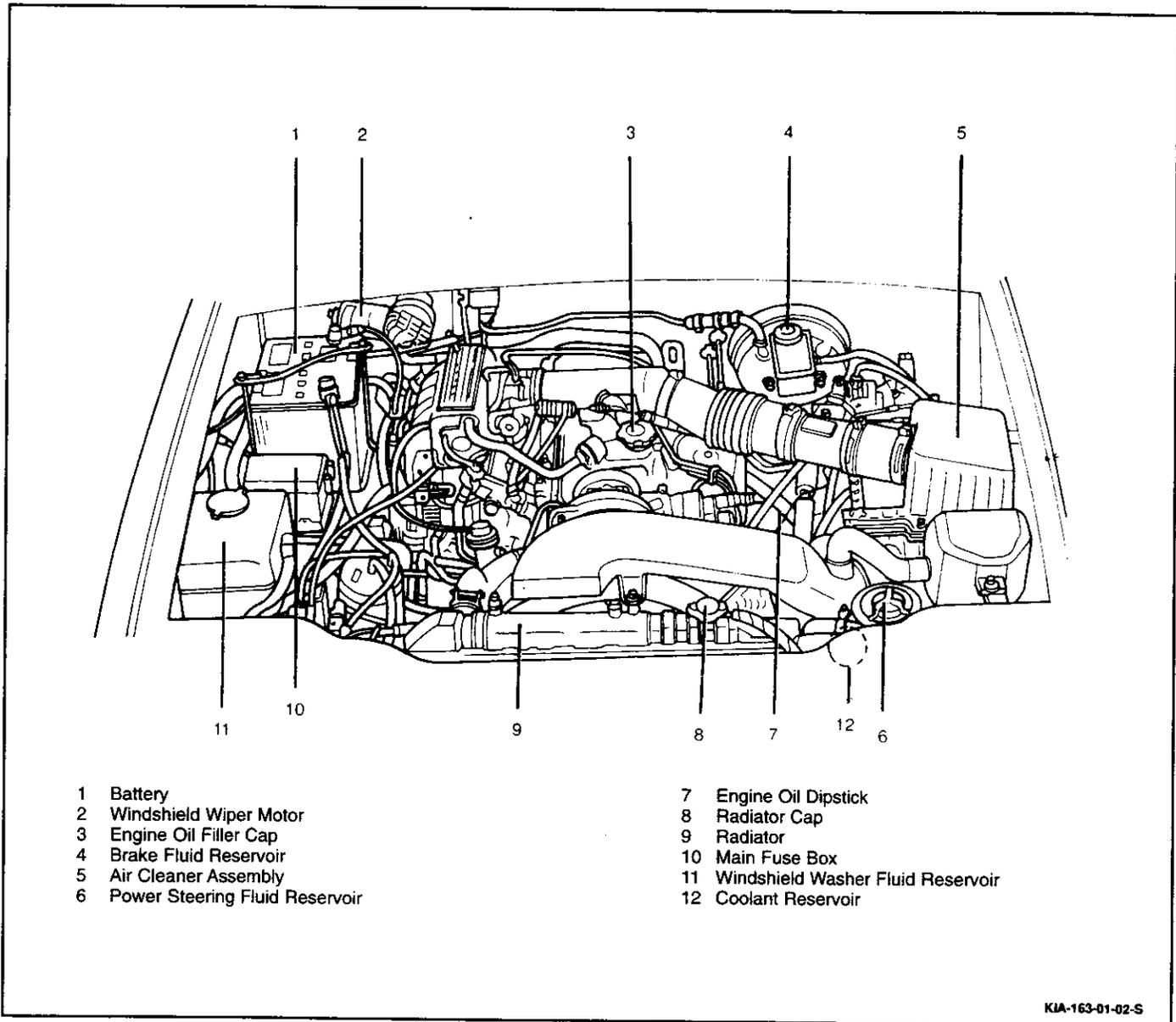
### ⚠ WARNING

**ENGINE OIL CONTAINS CERTAIN ELEMENTS WHICH MAY BE UNHEALTHY FOR YOUR SKIN AND MAY CAUSE CANCER. DO NOT LET USED ENGINE OIL STAY ON SKIN FOR A LONG TIME. CLEAN HANDS PROPERLY AND DISPOSE OF ANY CLOTHING OR RAGS SOILED WITH USED ENGINE OIL.**

3. Refill engine with clean engine oil.

## ENVIRONMENTAL SAFETY

Used engine oil is threatening to the environment. Do not dispose of used engine oil in the trash or on the ground. Consult your local recycling center for help.



- |                                  |                                      |
|----------------------------------|--------------------------------------|
| 1 Battery                        | 7 Engine Oil Dipstick                |
| 2 Windshield Wiper Motor         | 8 Radiator Cap                       |
| 3 Engine Oil Filler Cap          | 9 Radiator                           |
| 4 Brake Fluid Reservoir          | 10 Main Fuse Box                     |
| 5 Air Cleaner Assembly           | 11 Windshield Washer Fluid Reservoir |
| 6 Power Steering Fluid Reservoir | 12 Coolant Reservoir                 |

KIA-163-01-02-S

## ENGINE ACCESSORY DRIVE BELTS

Inspect generator and water pump drive belts along with power steering and air conditioner drive belt, if equipped, for cracks or excessive wear and proper tension. Adjust or replace if necessary.

## SPARK PLUGS

Plug type: BKR6E-11

Gap: 0.039-0.043 inch (1.0-1.1 mm)

## TRANSFER CASE OIL

Capacity: 1.4 quarts (1.3L)

## MANUAL TRANSMISSION FLUID

Capacity: 1.32 quarts (1.25L)

## FRONT DIFFERENTIAL FLUID

**\*** Notice

Replacement of the differential fluid is required at every 24,000 miles (40 000 km) after the initial replacement at 6,000 miles (10 000 km). Failure to replace the differential fluid could result in damage to the differential.

Capacity: 1.3 quarts (1.2L)

## REAR DIFFERENTIAL FLUID

**\* Notice**

Replacement of the differential fluid is required at every 24,000 miles (40 000 km) after the initial replacement at 6,000 miles (10 000 km). Failure to replace the differential fluid could result in damage to the differential.

Capacity: 1.3 quarts (1.2L)

## COOLING SYSTEM

Check coolant hoses for cracks or excessive wear.  
Check coolant level.

Capacity: 7.9 quarts (7.5L)

## IDLE SPEED

Verify that idle speed is within specifications.

Idle speed: 750-850 rpm

## FUEL LINE AND HOSES

Check fittings, connections, and components for leaks.

## BRAKE LINES AND CONNECTIONS

Verify proper attachment and tight connections.

## DRUM BRAKES

Inspect brake lining for damage or excessive wear. Verify lining thickness and drum inner diameter.

Lining thickness: 0.04 inch (1.0 mm) minimum

Drum inner diameter: 9.89 inches (251.2 mm) maximum

## DISC BRAKES

Inspect and verify disc rotor thickness and pad thickness.

Disc rotor thickness: 0.88 inch (22.4 mm) minimum

Pad thickness: 0.08 inch (2.0 mm) minimum

## CHASSIS/BODY NUTS AND BOLTS

Inspect all chassis and body nuts and bolts and tighten if necessary.

## LOCKS AND HINGES

Adjust and lubricate as necessary.

# SPECIFICATIONS

## REFILL CAPACITIES FOR 2.0L ENGINE

Engine Cooling System .....	7.9 qt (7.5 L)
Engine Oil w/ Filter Change .....	4.4 qt (4.2 L)
Manual Transmission .....	1.3 qt (1.25 L)
Automatic Transmission .....	2.7 qt (2.5L)
Transfer Case Oil .....	1.4 qt (1.3 L)
Power Steering .....	0.74 qt (0.7 L)
Fuel Tank .....	15.8 gal (60 L)
Windshield Washer Reservoir .....	2 qt (1.89 L)

## SERVICE PARTS

Air Filter .....	0K011-13-Z40
Fuel Filter .....	0K03X-20-490A
Oil Filter Cartridge .....	OFE3R-14-302
Battery .....	UK011-18-520A
Spark Plug .....	0KOIC-18-110
Type .....	NGK: BKR6E-11
Gap .....	0.039-0.043 in. (1.0- 1.1 mm)
PCV Valve .....	KB603-13-890

## TIRE PRESSURE

Tire Pressure (front and rear) .....	26 psi (179 kPa)
Full Size Spare .....	35 psi (240 kPa)