# HYUNDAI 1990 Owner's Manual

# **NEW VEHICLE WARRANTY**

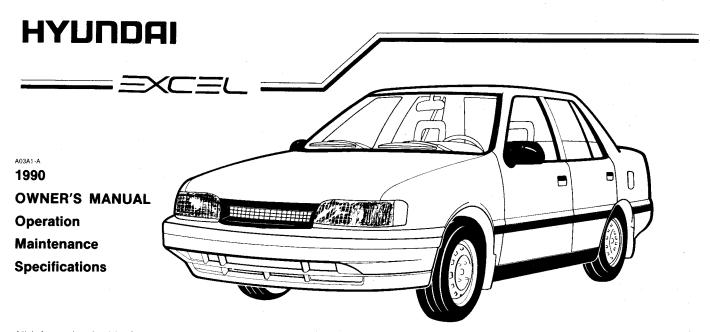
Your new Hyundai is covered by the following limited warranties:

- o New Vehicle Limited Warranty
- o Anti-Perforation Limited Warranty
- o Emission Control Systems Warranty (see your Owner's Handbook for additional information)

A02A1-A

# RESPONSIBILITY FOR MAINTENANCE

The maintenance requirements for your new Hyundai are found in Section 5. As the owner, it is your responsibility to see that all maintenance operations specified by the manufacturer are carried out at the appropriate intervals. When the vehicle is used in severe driving conditions, more frequent maintenance is required for some operations. Maintenance requirements for severe operating conditions are also included in Section 5.



All information in this Owner's Manual is current at the time of publication. However, Hyundai reserves the right to make changes at any time so that our policy of continual product improvement may be carried out.

This manual applies to all 1990 Hyundai Excel models and includes descriptions and explanations of optional as well as standard equipment. As a result, you may find material in this manual that does not apply to your specific vehicle.

# **FOREWORD**

Thank you for choosing Hyundai. We are pleased to welcome you to the growing number of discriminating people who drive Hyundais. The advanced engineering and high-quality construction of each Hyundai we build is something of which we're very proud.

Your Owner's Manual will introduce you to the features and operation of your new EXCEL. It is suggested that you read it carefully since the information it contains can contribute greatly to the satisfaction you receive from your new car.

The manufacturer also recommends that all service and maintenance on your car be performed by an authorized Hyundai dealer. Hyundai dealers are prepared to provide high-quality service, maintenance and any other assistance that may be required.

A04B1-A

# **HYUNDAI MOTOR COMPANY**

**Note:** Because future owners will also need the information included in this manual, if you sell this Hyundai, please leave the manual in the vehicle for their use. Thank you.

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# TABLE OF CONTENTS

ECTION PA	GE
1. A GUIDED TOUR Features of Your Hyundai Excel	1-1
2. BEHIND THE WHEEL Driving Your Hyundai Excel	2-1
3. TROUBLE ON THE ROAD What to do in an Emergency	3-1
4. KEEPING THOSE GOOD LOOKS Corrosion Prevention & Appearance Care	4-1
5. THE KEY TO TROUBLE-FREE OPERATION Vehicle Maintenance Requirements	5-1
6. SATURDAY MECHANICS Do-It-Yourself Maintenance	6-1
7. EMISSION CONTROL SYSTEMS	7-1
8. THINGS YOU SHOULD KNOW Consumer Information	8-1
9. VEHICLE SPECIFICATIONS	9-1
0. INDEX 1	10-1

A06A1-A

# CAUTION: MODIFICATIONS TO YOUR HYUNDAI EXCEL

Your Hyundai should not be modified in any way. Such modifications may adversely affect the performance, safety or durability of your Hyundai and may, in addition, violate conditions of the limited warranties covering the vehicle. Certain modifications may also be in violation of regulations established by the U.S. Department of Transportation and other federal or state agencies.

A07A1-A

# TWO-WAY RADIO INSTALLATION CAUTION

Your vehicle is equipped with electronic fuel injection and other electronic components. It is possible for an improperly installed/adjusted two-way radio to adversely affect electronic systems. For this reason, we recommend that you carefully follow the radio manufacturers' instructions or consult your Hyundai dealer for precautionary measures or special instructions.

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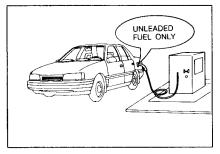
# FUEL RECOMMENDATIONS

#### Use Unleaded Gasoline

Unleaded gasoline with a Pump Octane Rating of 87 (Research Octane Number 91) or higher must be used in your Hyundai.

If leaded gasoline is used, it will cause the catalytic converter to become ineffective and the emission control system to malfunction. This can also result in increased maintenance expense.

To avoid accidental use of leaded fuel, the larger nozzle used with leaded gasoline at service stations cannot be inserted into the fuel tank opening of your Hyundai.



B01B1-A

# What about Gasohol?

Gasohol (a mixture of 90% unleaded gasoline and 10% ethanol or grain alcohol) may be used in your Hyundai. However, if your engine develops driveability problems, the use of 100% unleaded gasoline is recommended.

Use of fuels with unspecified quantities of alcohol, or alcohols other than ethanol, should not be used.

B01C1-A

## Do not Use Methanol

Fuels containing methanol (wood alcohol) should not be used in your Hyundai. This type of fuel can reduce vehicle performance and damage components of the fuel system.

#### **CAUTION:**

Your Hyundai's New Vehicle Limited Warranty may not cover damage to the fuel system and performance problems that are caused by the use of methanol or fuels containing methanol.

B01D1-A

# Operation in Foreign Countries

If you are going to drive your Hyundai in another country, be sure to:

- o Observe all regulations regarding registration and insurance.
- Determine that acceptable fuel is available.

B02A1-A

# BREAKING IN YOUR NEW HYUNDA! During the First 1200 Miles (2000 km)

No formal "break-in" procedure is required with your new Hyundai. However, you can contribute to the economical operation and durability of your Hyundai by observing the following recommendations during the first 1200 miles (2000 km).

- o Don't drive faster than 55 MPH (88 kph).
- o While driving, keep your engine speed (rpm, or revolutions per minute) between 2000 and 4000 rpm.
- Use moderate acceleration. Don't use full-throttle starts.
- o For the first 200 miles (300 km), try to avoid hard stops.
- Don't lug the engine (in other words, don't drive so slowly in too-high a gear that the engine "bucks": shift to a lower gear).
- Whether going fast or slow, vary your speed from time to time.
- Don't let the engine idle longer than 3 minutes.

B03A1-A

# KEYS

For greater convenience, the same key operates all the locks in your Hyundai. However, because the doors can be locked without a key, carrying a spare key is recommended in case you lock one key inside the car.

B03B1-A

## Record Your Key Number

A code number is stamped on the number plate that came with the keys to your Hyundai. This key number plate should not be left with the keys but kept in a safe place, not in the vehicle. The key number should also be recorded in a place where it can be found in an emergency.

If you need additional keys, or if you should lose your key, your authorized Hyundai dealer can make new keys if you can supply the key number.

B04A1-A

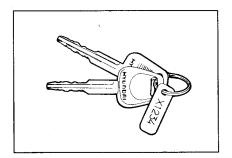
# DOOR LOCKS

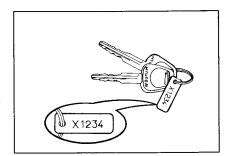
Before you drive away -- especially if there are children in the car -- be sure that all the doors are securely closed and locked. This helps assure that doors will not be opened accidentally. Also, when combined with the proper use of seat belts, locking the doors helps keep occupants from being ejected from the car in the case of an accident.

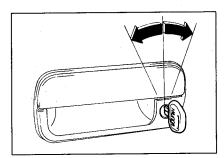
B04B1-A

# Locking Using the Key

Lock the door by turning the key toward the front of the car and unlock it by turning it toward the rear.







B04C1-A

# Locking from Outside

There are two steps to locking the door from the outside without using the key:

- 1. Push the lock button down.
- When locking the front door, hold the handle up as you close the door. When locking the rear door, it is not necessary to hold the handle up.

## **CAUTION:**

Be careful not to lock your key in the vehicle.

B04D1-A

## Locking from Inside

To lock your Hyundai from inside, simply close the door and push the lock button down.

When this is done, the door cannot be opened using either the inside or the outside door handle.

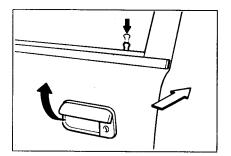
B05A1-A

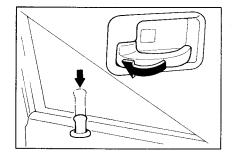
# CHILD-PROTECTOR REAR DOOR LOCK

Your Hyundai is equipped with a "child-protector" rear door. When this is engaged, the rear door cannot be opened from inside. Its use is recommended whenever there are children in the rear seat.

To engage the child-protector feature so that the door cannot be opened from inside, move the child-protector lever to the lock position and close the door. Move the lever to the FREE position when normal door operation is desired.

If you wish to be able to open the door from the outside, pull the outside door handle to its upward position.







B0641-A

## **ADJUSTABLE FRONT SEATS**

#### WARNING

Never attempt to adjust the seat while the vehicle is moving. This could result in loss of control, and an accident causing injury to the occupants.

B06B1-A

# **Adjusting Seat Forward and Rearward**

To move the seat toward the front or rear, pull the lock release lever toward the center of the car. This releases the seat on its track so you can move it forward or rearward to the desired position. When you find the position you want, release the lever and slide the seat forward or rearward on its track until it locks into position and cannot be moved further.

B06C1-A

## **Adjusting Seatback Angle**

To release the seatback, lean forward to take your weight off it, then pull up on the recliner control lever at the outside edge of the seat. Now lean back until the desired seatback angle is achieved. To lock the seatback into position, release the recliner control lever.

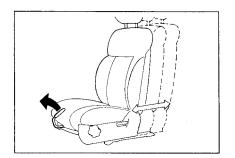
B06D1-A

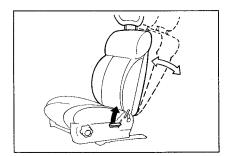
# **Adjustable Headrests**

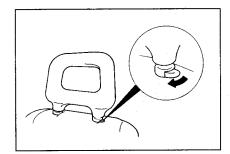
The headrests in your Hyundai may be raised or lowered by releasing the lock button on the headrest support. For maximum effectiveness in case of an accident the headrest should be adjusted so the top of the headrest is at the same height as the top of the occupant's ears. For this reason, the use of a cushion that holds the body away from the seatback is not recommended.

## **WARNING**

Do not operate vehicle with the headrests removed. Headrests may provide protection against neck injuries when properly adjusted.







B06E1-A

# Lumbar Support Control (If installed) (Driver's seat only)

The front seats in some Hyundais are equipped with adjustable lumbar support. To increase the amount of lumbar support, turn the handle forward. To decrease it, turn the handle toward the rear.

B06F1-A

# Seat Cushion Height Adjustment (If installed) (Driver's seat only)

To adjust the height of the seat cushion, turn the seat cushion control knob in the appropriate direction.

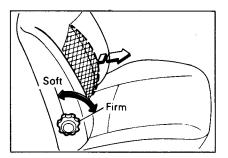
B06G1-A

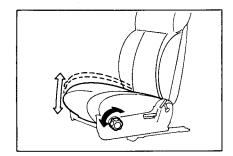
# Under Tray (if installed)

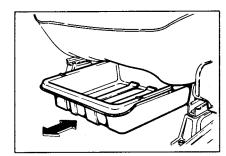
Pull the tray under the front passenger seat forward to use it for additional storage.

## NOTE:

Keep it in the closed position while driving.







B07A1-A

# REAR SEAT ENTRY (For 3-door model)

The front passenger seatback should be tilted to enter the rear seat.

By pulling up on the recliner control lever (1) at the outside of the front passenger seat, the seatback will tilt forward and the seat will automatically slide forward.

Rear seat occupants can tilt the front passenger seatback by depressing the foot lever (2) as shown in the drawing.

#### WARNING

Passengers sitting in the rear seat should be careful not to accidentally press the foot lever (2) while the vehicle is moving. As this may cause the seat back to move forward and injure a front seat occupant. B08A1-A

# WINDOW GLASS

To raise or lower the window, turn the window regulator handle clockwise or counter-clockwise.

#### NOTE:

When opening or closing the windows, make sure your passenger's arms and hands are safely out of the way.

B09A1-A

# SEAT BELT PRECAUTIONS AND WARNINGS

All occupants of the vehicle should wear their seat belts at all times. Your state's laws may require that some or all occupants of the vehicle use seat belts. The possibility of injury or the severity of injury in an accident will be decreased if this elementary safety precaution is observed. In addition, the following recommendations are made:

B09B1-A

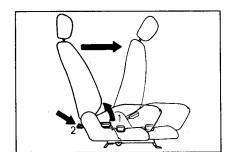
# **Baby or Small Child**

Some states require the use of child restraint systems for babies and small children. Whether this is required by law or not, it is strongly recommended that a child restraint seat or infant restraint system be used for babies or small children weighing less than 40 pounds. Information about the use of such restraints is included on page 1-13.

B09C1-A

# Larger Children

It is recommended that larger children occupy the rear seat and wear their seat belts. If the child is in the front seat, it should be securely restrained by the seat belt. Under no circumstances should the child be allowed to stand or kneel on the seat. Children are afforded the most safety in the event of an accident when they are restrained by a proper child restraint system.



B09D1-A

# **Pregnant Women**

The use of a seat belt is recommended for pregnant women to lessen the chance of injury in an accident. When a seat belt is used, it should be placed as low and snugly as possible on the hips, not across the abdomen. For specific recommendations, consult a physician.

B09E1-A

# Injured Person

A seat belt should be used when an injured person is being transported. When this is necessary, you should consult a physician for recommendations.

B09F1-A

## One Person Per Belt

Two people (including children) should never attempt to use a single seat belt. This could increase the severity of injuries in case of an accident.

B09G1-A

# Do Not Lie Down

To prevent injuries in the event of an accident, and to achieve maximum effectiveness of the seat belt system, all passengers should be sitting up and the front seats should be in an upright position when the car is moving. As seat belt cannot operate properly if the person is lying down in the rear seat or if the front seat is at or

near the fully reclined position.

ROGH1-A

# CARE OF SEAT BELTS

Seat belt systems should never be disassembled or modified. In addition, care should be taken to assure that seat belts and belt hardware are not damaged by seat hinges, doors or other abuse.

B09I1-A

# **Periodic Inspection**

It is recommended that all seat belts be inspected periodically for wear or damage of any kind. Parts of the system that are damaged should be replaced as soon as possible.

B09J1-A

# Keep Belts Clean and Dry

Seat belts should be kept clean and dry. If belts become dirty, they can be cleaned using a mild soap solution and warm water. Bleach, dye, strong detergents or abrasives should not be used because they may damage and weaken the fabric.

B09K1-A

# When to Replace Seat Belts

The entire seat belt assembly or assemblies should be replaced if the vehicle has been involved in an accident. This should be done even if no damage is visible. Additional questions concerning seat belt operation should be directed to your Hyundai Dealer.

B09L1-A

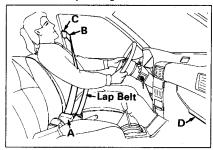
# PASSIVE SEAT BELTS (Fat seat)

Your Hyundai is equipped with a new safety seat belt system for the driver and the front seat passenger to be restrained automatically as they sit down and close the door. Your new safety seat belt system consists of a retractor (A), a tab (B), a buckle (C), a knee bolster (D) and a manual lap belt assembly. Always make sure that the metal tab is inserted into the buckle of the upper rear edge of the door before entering in your vehicle.

B09M1-A

## **WARNING**

- For full restraint system protection, securely fasten the manual lap belt in addition to the automatic shoulder belt whenever the car is moving.
- o Front seat passengers should not ride



in a moving vehicle with the seatback reclined. The safety seat belts operate securely only when the seatback is in an upright position.

- Both arms should not be under or over the belt. Rather, one should be over and the other under, as shown in the illustration.
- Do not wear the shoulder portion of the seat belt under your arm as this increases the possibility of serious injury to you in the event of an accident.
- o When wearing the passive seat belt, make sure that the belt is positioned midway over the shoulder-NEVER ACROSS THE NECK.
- o To operate the automatic seat belt system, the shoulder belt tongue should always remain inserted in the shoulder belt buckle.
- o Do not wear the lap belt across the shoulder belt.
- Be careful not to damage the belt webbing or hardware, and that they do not get caught or pinched in the seat or doors.
- o Hyundai recommends that children be seated in the rear seats.
- o Avoid wearing twisted seat belts.
- o Release the shoulder belt buckle from the tongue only in an emergency.
- o The retractors lock only on sudden impact or stops. The belt will allow

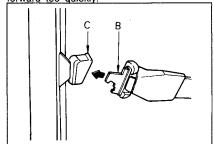
some freedom of movement if done slowly.

# How The Passive Seat Belt System Works

The metal tab (B) is inserted in the buckle (C) which is fastened firmly to the upper rear edge of the door. The other end of the belt is wound automatically on the Web Locking Retractor (A) under the seat.

When you open the front doors, it extends the belt from the retractor and provides access to the interior. When the door is closed, the belt automatically places itself diagonally across the chest.

The seat belt automatically adjusts to the proper length. If you lean forward in a slow, easy motion, the belt will extend and let you move around. If there is a sudden stop or impact, however, the belt will lock into position. It will also lock if you try to lean forward too quickly.



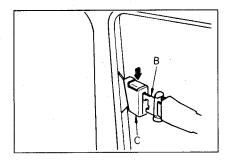
B0901-A

#### To Release The Seat Belt

If required, press the emergency release button on the buckle (C) marked PRESS EMERGENCY.

When it is released, the belt tab (B) should automatically drawback into the retractor.

For your safety, we recommend that you hold the belt tab (B) with your hand and allow it to retract gently.



B09P1-A

# SEAT BELT WARNING LIGHT AND CHIME

With the key in the "ON" position and the lap belt unfastened, the seat belt warning light will stay on and the chime will sound for six seconds. (Driver's only).

If the shoulder belt is disconnected while the key is in the "ON" position, the buzzer will sound for 6 seconds and the warning light will flash for 60 seconds. (Driver's only).

B09Q1-A

# LAP BELTS (2-Point Automatic Locking Retractor Type) (Front Seat)

# To Fasten Your Lap Belt

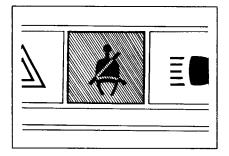
To fasten a 2-point type lap belt with an automatic locking retractor, pull it out of the retractor in one continuous motion and insert the metal tab into the buckle. The length of the lap belt is automatically locked into position when you stop pulling on it. Once it locks, it cannot be pulled out any further until it is allowed to retract completely. Then it can be pulled out again.

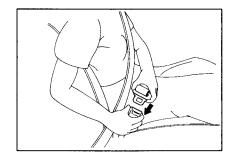
When you let go of the buckle, the excess length of the lap belt is retracted automatically so it adjusts to fit around you.

B09R1-A

# **Adjusting Your Lap Belt**

You should place the belt as low as possible on your hips, not on your waist. If located too high on your body, the chances of sliding out from under it and being injured are increased. Pull the belt toward the retractor to take up extra slack.







B09S1-A

# To Release the Lap Belt

When you want to release the lap belt, press the button in the locking buckle. The lap belt should then retract automatically. If it does not, make sure it is not twisted and try again.

#### NOTE:

Inspect both front seat lap belt receivers periodically or immediately after an accident to see if a red "REPLACE BELT" sticker is visible (see figure).

#### WARNING

If for any reason the red "REPLACE BELT" sticker is visible on the lap belt receiver, have the entire seat belt assembly replaced immediately.

Failure to replace the seat belt assembly may result in serious injury to the occupant in the event of a subsequent accident.

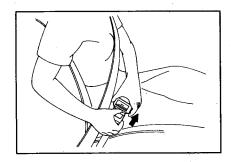
B09T1-A

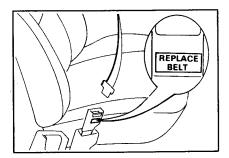
# SEAT BELTS (3-Point Webbing Clamp Locking Retractor) (Rearseat outboard)

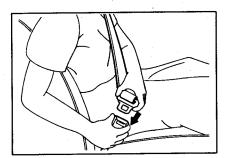
#### To Fasten Your Belt

To fasten your seat belt, pull it out of the retractor and insert the metal tab into the buckle. There will be an audible "click"when the tab locks into the buckle.

The seat belt automatically adjusts to the proper length only after the lap belt is adjusted manually so that it fits snugly around your hips. If you lean forward in a slow, easy motion, the belt will extend and let you move around. If there is a sudden stop or impact, however, the belt will lock into position. It will also lock if you try to lean forward too quickly.







B09U1-A

# **Adjusting Your Seat Belt**

You should place the belt as low as possible on your hips, not on your waist. If located too high on your body, the chances of sliding out from under it and being injured are increased. Both arms should not be under or over the belt. Rather, one should be over and the other under, as shown in the illustration.

B09V1-A

## To Release the Seat Beit

The seat belt is released by pressing the release button in the locking buckle. When it is released, the belt should automatically draw back into the retractor.

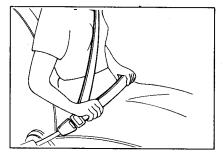
If this does not happen, check the belt to be sure it is not twisted, then try again.

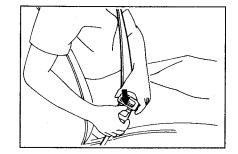
B09W1-A

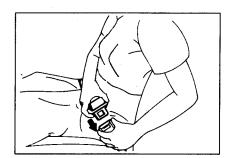
# SEAT BELTS (2-Point Static Type) (Rear Seat Center)

# To Fasten Your Belt

To fasten a 2-point static type belt, Insert the metal tab into the locking buckle. There will be an audible "click" when the tab locks into the buckle. Check to make sure the belt is properly locked and that the belt is not twisted.







B09X1-A

# **Adjusting Your Belt**

With this type of belt, the length must be adjusted manually so it fits snugly around your body. The belt should be placed as low as possible on your hips, not on your waist. If the belt is too high it could increase the possibility of your being injured in an accident because you could slide under it.

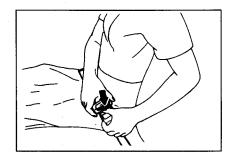
Too high

Shorten

B09Y1-A

## To Release the Belt

When you want to release the seat belt, press the button in the locking buckle.



B10A1-A

## CHILD RESTRAINT SYSTEM

Children riding in the car should sit in the rear seat and be restrained to minimize the risk of injury in an accident, sudden stop, or sudden maneuver. According to accident statistics provided by the National Highway Traffic Safety Administration (NHTSA), children are safer when properly restrained in the rear seating positions than in the front seat. Larger children should use one of the seat belts provided. For smaller children, we strongly recommend the use of a commercially available child restraint system that meets the requirements of the Federal Motor Vehicle Safety Standard, (FMVSS), because it offers the most protection against injury. All states now have laws which require that small children must be seated in a child passenger seat restraint system. Check local laws. All child restraint systems are designed to be secured by lap belts or the lap belt portion of a lap-shoulder belt.

Children could be injured in a crash if their restraints are not properly secured. For small children and babies we strongly recommend a child seat or infant seat. Before buying a particular child restraint system, make sure it fits your car seat and seat belts, and fits your child. Follow all the instructions provided by the manufacturer when installing the child restraint system.



B10B1-A

#### CAUTION:

- Since a safety belt or child restraint system can become very hot if it is left in a closed vehicle, be sure and check the seat cover and buckles before placing a child there.
- o When the child restraint system is not in use, store it in the trunk or fasten it with a safety belt so that it will not be thrown forward in the case of a sudden stop or accident.
- It is recommended that a child restraint system be placed in the vehicle's rear seat since this can make an important contribution to safety.
- o Children who are old enough to sit by themselves should sit in the rear seat and be restrained with the lap belt.
- o Never allow a child to stand up or kneel
- Never use an infant carrier or child safety seat that"hooks" over a seatback; it may not provide adequate security in an accident.
- o Never allow a child to be held in a person's arms while they are in a moving vehicle. As this could result in serious injury to the child in the event of an accident. Holding a child in a moving vehicle does not provide the child with any means of protection during an accident, even if the person holding the child is wearing a seat belt.

B10C1-A

# Using a Child Restraint System

To install a child hook holder, use a 5/16" 18 UNC thread bolt and 11mm spacer. You can damage the holder nut on your vehicle if you force a bolt with a different thread into the holder nut.

In addition to the bolt, you may also need a spacer and a locking clip depending on the vehicle or the position in which the child seat is installed.

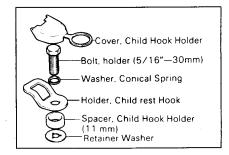
If these parts do not come with your child seat, you can purchase them from your Hyundai dealer.

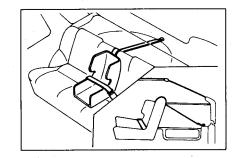
B10D2-A

# CHILD HOOK HOLDER NUT LOCATION

# (3 and 5 Door Model)

The child hook holder nut is located on the rear floor as shown below.





B10E1-A

# (4 Door Model)

The child hook holder nut is located on the rear package tray as shown below.

B10F1-A

# Installation on Rear Seat Center Position

Use the seat belt of the rear seat to install the child restraint system as illustrated. After installation of the child restraint system, shake the child seat back and forth, and side to side to see that it is positively secured with the seat belt. If the child seat moves, readjust the length of the seat belt.

Then, if equipped, insert the child restraint tether strap hook into the child hook holder and tighten to secure the seat. Always refer to the child restraint system manufacturers recommendation before installing your vehicle.

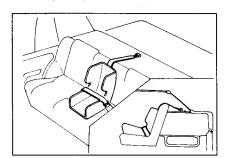
B10G1-A

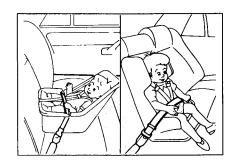
# Outboard Shoulder/Lap Belt

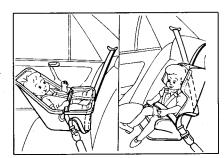
Secure the child restraint with the lap belt as illustrated. To prevent slack in the lap belt, it will be necessary to secure the lap/shoulder belt in place with a locking clip. If your child restraint has a top strap, install the child rest hook holder to the provided anchorage. Secure the child restraint with the outboard lap belt of the rear seat and latch the top strap hook onto the anchor bracket.

#### NOTE:

- o Before using the locking clip, read the instructions supplied by the manufacturer.
- Child restraint anchors are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.







B10H1-A

## Installation on Front Seat:

To install a child restraint system in the front of your vehicle, a seat belt locking clip is required.

Secure the child restraint system with the lap belt, as shown in the illustration, below. To prevent looseness of the lap belt, use a genuine Hyundai locking clip (available from your Hyundai dealer) or one of equivalent dimension and strength. To install the locking clip,insert the lap through the recesses of the locking clip near the top of the lap belt, as shown in the illustration. (Follow the instructions attached to the locking clip for its use).

When your child restraint system is not installed, the locking clip should be stored in the glove box to prevent it from being lost.

To use a child hook, pull out the rear seat belt and then let it rewind to where it locks. Latch the hook onto the tab of the rear seatbelt and tighten the strap of the child seat.

#### NOTE:

- Be sure to secure the child restraint system with the lap belt when using a child hook.
- o On passive restraint vehicles, it is not recommended that a child restraint system be placed in the front seat.
- You can find helpful instructions on your sun visor for your child restraint.

B10I1-A

# Adjusting The Lap Belt (Front seat)

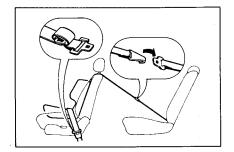
To prevent slack in the lap belt, it will be necessary to secure the lap belt when you use the child restraint system. Secure the child restraint with the lap belt as illustrated.

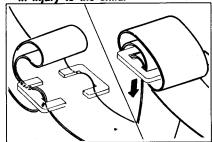
- 1. Pull the lap belt out fully.
- Tie up the slack of the lap belt using the locking clip at any convenient point along the lap belt. Make the loop as large as possible to remove any slack.
- After you have tied up the belt, pull on it in the direction of the arrows to make sure that it does not slip.

## WARNING

Never install the child restraint with the passive seat belt because it is not designed to secure the child restraint. Failure to follow this warning may result in injury to the child.

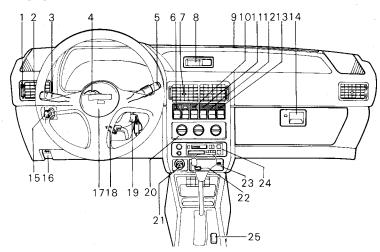






#### B11A1-A

## INSTRUMENTS AND CONTROLS



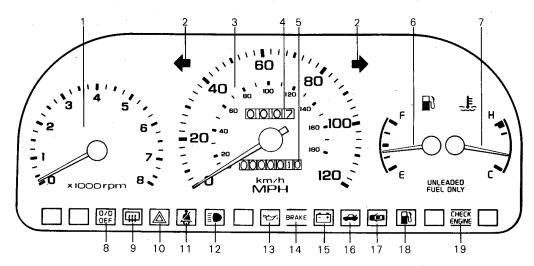
- 1. Side Air Vent Louver Knob
- 2. Side Air Vent Louver
- 3. Multi-Function Light Switch
- 4. Hazard Warning Switch
- 5. Windshield Wiper/Washer Switch
- 6. Remote Tail Lid Release Switch
- 7. Center Air Vent Louver
- 8. Digital Clock (If installed)
- 9. Defroster Ventilation Outlet

- 10. Air Conditioner Switch
- 11. Rear Defroster Switch
- 12. Rear Wiper Switch
- 13. Rear Washer Switch
- 14. Glove Box
- 15. Panel Brightness Control Knob (Rheostat switch)
- 16. Hood Release Lever
- 17. Horn Button

- 18. Steering Wheel Tilt Lever
- 19. Ignition Switch and Keys
- 20. Heater/Air Conditioner Control Panel
- 21. Cigarette Light
- 22. Overdrive Switch (Auto T/A only)
- 23. Ashtray
- 24. Audio System
- 25. Normal/Economy Switch (Auto T/A only)

B11B1-A

## INSTRUMENT CLUSTER AND INDICATOR



- 1. Tachometer (If installed)
- 2. Turn Signal Indicator Light
- 3. Speedometer
- 4. Trip Odometer
- Odometer
- 6. Fuel Gauge
- 7. Temperature Gauge

- 8. Overdrive Off Indicator Light (If installed)
- 9. Rear Window Defroster Indicator
- 10. Hazard Warning Indicator Light
- 11. Seat Belt Warning Light
- 12. High Beam Indicator Light
- 13. Oil Pressure Warning Light

- Parking Brake/Brake Fluid Level Warning Light
- 15. Charging System Warning Light
- 16. Trunk Lid Open Warning Light
- 17. Door Ajar Warning Light
- 18. Low Fuel Warning Light
- 19. Engine Warning Light

B11E1-A

# OVERDRIVE/OFF INDICATOR

When the overdrive switch is turned on and 4th gear is engaged, the overdrive off indicator will go out. This amber indicator will be illuminated when the overdrive switch is turned off.

B11F1-A



## REAR WINDOW DEFROSTER INDICATOR LIGHT

The rear window defroster indicator light comes on when the ignition switch is on and the rear window defroster is switched to "ON". The defroster will turn itself off in about 10 minutes.

B11G1-A



The blinking green arrow on the instrument panel shows the direction indicated by the turn signals. If the arrow comes on but does not blink, blinks more rapidly than normal, or does not blink at all, a malfunction in the turn signal system is indicated.

B11H1-A

# HAZARD WARNING **INDICATOR LIGHT**

When the hazard warning switch is turned on, the four turn signal lights, the turn signal indicator arrows and the hazard warning indicator light all blink at the same time.

B1111-A



# SEAT BELT REMINDER LIGHT AND CHIME

The seat belt reminder light comes on for 6-60 seconds when the ignition key is turned from the "OFF" position to "ON" or "START". If the driver's seat belt is not fastened, the warning chime will soundat the same time. B11J1-A



# HIGH BEAM INDICATOR LIGHT

The high beam indicator light comes on whenever the headlights are switched to high beam.

B11K1-A



# OIL PRESSURE WARNING OIL PF **CAUTION:**

If the oil pressure warning light stays on while the engine is running, serious engine damage may result. The oil pressure warning light comes whenever there is insufficient oil pressure. In normal operation, it should come on when the ignition switch is turned on, then go out when the engine is started. If the oil pressure warning light stays on while the engine is running, there is a serious malfunction.

If this happens, stop the car as soon as it is safe to do so, turn off the engine and check the oil level. If the oil level is low. fill engine oil to the proper level and start the engine again. If the light stays on with the engine running, turn the engine off immediately. In any instance where the oil light stays on when the engine is running, the engine should be checked by a Hyundai dealer before the car is driven again.

B11L1-A



# PARKING BRAKE/BRAKE FLUID LEVEL WARNING LIGHT

## CAUTION:

If you suspect brake trouble, have your brakes checked by a Hyundai dealer as soon as possible. Driving your car with a problem in either the brake electrical system or brake hydraulic system is dangerous, and could result in an accident.

# **Warning Light Operation**

The parking brake/brake fluid level warning light should come on when the parking brake is applied and the ignition switch is turned to "ON" or "START". After the engine is started, the light should go out when the parking brake is released.

If the parking brake is not applied, the warning light should come on when the ignition switch is turned to "ON" or "START". then go out when the engine starts. If the light comes on at any other time, you should slow the vehicle and bring it to a complete stop in a safe location off the roadway.

The brake warning light indicates that the

brake fluid level in the brake master cylinder is low and hydraulic brake fluid conforming to DOT 3 specifications should be added. After adding fluid, if no other trouble is found, the car should be carefully driven to a Hyundai dealer for inspection. If further trouble is experienced, the vehicle should not be driven at all but taken to a dealer by a professional towing service or some other safe method.

Your Hyundai is equipped with dual-diagonal braking systems. This means you still have braking on two wheels even if one of the dual systems should fail. With only one of the dual systems working, more than normal pedal travel and greater pedal pressure are required to stop the car. Also, the car will not stop in as short a distance with only half of the brake system working. If the brakes fail while you are driving, shift to a lower gear for additional engine braking and stop the car as soon as it is safe to do so.

B11M1-A



## CHARGING SYSTEM WARNING LIGHT

The charging system warning light should come on when the ignition is turned on, then go out when the engine is running. If the light stays on while the engine is running, there is a malfunction in the electrical charging system. If the light comes on while you are driving, stop, turn off the engine and check under the hood. First, make certain the alternator drive belt is in place. If it is, check

the tension of the belt. Do this as shown on page 6-13 by pushing down on the center of the belt. When you push hard with your finger, you should not be able to deflect the belt more than 0.32 inch. If the belt is loose, either tighten it so there is 0.27-0.32 in. (7-8.2 mm) deflection at apressure of 22 lbs (100 N) or see your Hyundai dealer.

B11N1-A



# TAIL GATE OPEN WARNING LIGHT

This light remains on unless the tail gate is completely closed.

B1101-A



# **DOOR AJAR WARNING LIGHT** AND CHIME

The door ajar warning light and chime warns you that a door is not completely closed.

# NOTE:

To remind you not to lock the key inside the car, the warning chime sounds and the warning light comes on whenever the key is in the"LOCK" position and the door is open. The chime sounds and the light remains on until the key is removed from the ignition.

B11P1-A



## LOW FUEL LEVEL WARNING LIGHT

The low fuel level warning light comes on when the fuel tank is approaching empty. When it comes on, you should add fuel as

soon as possible. Driving with the fuel level warning light on or with the fuel level below "E" can cause the engine to misfire and damage the catalytic converter.

B11Q1-A

## ECCC ENGINE WARNING LIGHT ENGINE

This light illuminates when there is a malfunction of an exhaust gas related component, and the system is not functioning properly so that the exhaust gas regulation values are not satisfied. This light will also illuminate when the ignition key is turned to the "ON" position, and then it will go out in a few seconds. If it illuminates while driving, or does not illuminate when the ignition key is turned to the "ON" position, take your car to your nearest authorized dealer and have the system checked.

B11R1-A

# **BRAKE PAD WEAR WARNING SOUND**

The front disc brake pads have wear indicators that should make a high-pitched squealing or scraping noise when new pads are needed. The sound may come and go or be heard all the time when the vehicle is moving. It may also be heard when the brake pedal is pushed down firmly. Expensive rotor damage will result if the pads are not replaced.

B11S1-A

## **FUEL GAUGE**

The needle on the gauge indicates the fuel level in the fuel tank. The fuel capacity is given in Section 9.

B11T1-A

#### **COOLANT TEMPERATURE GAUGE**

#### WARNING

Never remove the radiator cap when the engine is hot. The coolant is under pressure and could erupt and cause severe burns. Walt until the engine is cool before adding coolant.

The needle on the coolant temperature gauge should stay in the normal range. If it moves across the dial to "H" (Hot), pull over and stop as soon as possible and turn off the engine. Then open the hood and check the coolant level in the plastic tank at the right side of the engine compartment.

B11U1-A

## **SPEEDOMETER**

Your Hyundai's speedometer is calibrated in miles per hour (on the outer scale) and kilometers per hour (on the inner scale).

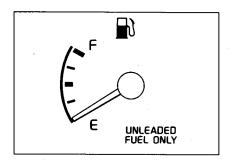
B11V1-A

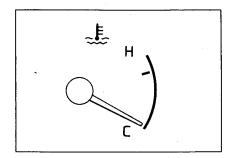
#### **ODOMETER**

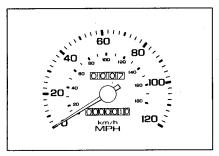
The odometer records the total distance traveled in miles and tenths of a mile. You will also find the odometer useful to determine when periodic maintenance should be performed.

#### NOTE:

Federal law forbids alteration of the odometer of any vehicle with the intent to change the number of miles indicated. Any alteration of the odometer may void your warranty coverage.







B11W1-A

#### TRIP ODOMETER

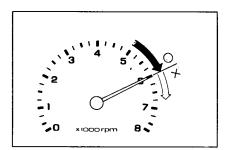
The trip odometer records distance in miles and tenths of a mile. It is equipped with a push-button reset feature. This allows you to return the trip odometer to zero by pushing in on the small knob beside the speedometer.

# TACHOMETER (If installed)

The tachometer registers the speed of your engine in revolutions per minute (rpm). It is useful to help you shift at the appropriate engine speed to avoid lugging or over-revving the engine.

#### **CAUTION:**

The engine should not be raced to such a speed that the needle enters the red zone on the tachometer face. This can cause severe engine damage.



B12A1-A

# COMBINATION TURN SIGNAL, HEADLIGHT AND LOW-BEAM SWITCH

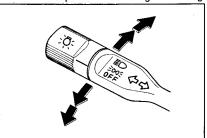
# **Turn Signal Operation**

Pulling down on the lever causes the turn signals on the left side of the car to blink. Pushing upwards on the lever causes the turn signals on the right side of the car to blink. As the turn is completed, the lever will automatically return to the center position and turn off the turn signals at the same time. If either turn signal indicator light blinks more rapidly than usual, goes on but does not blink, or does not go on at all, there is a malfunction in the system. Check for a burned-out fuse or bulb or see your Hyundai dealer.

B12B1-A

# Lane Change Signal

To indicate a lane change, move the lever up or down to a point where it begins flashing.

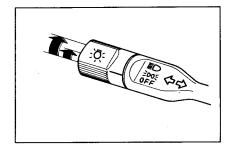


The lever will automatically return to the center position when released.

B12C1-A

#### **HEADLIGHT SWITCH**

To operate the headlights, turn the barrel on the end of the multi-function switch. The first position turns on the parking lights, side lights, tail lights and instrument panel lights. The second position turns on the headlights.



B12D1-A

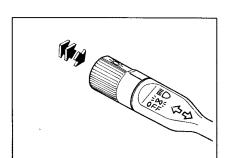
## **HIGH-BEAM SWITCH**

To turn on the headlight high beams, push the lever forward (away from you). The High Beam Indicator Light will come on at the same time. For low beams, pull the lever back toward you.

B12E1-A

#### **HEADLIGHT FLASHER**

To flash the headlights, pull the switch lever toward you, then release it. The headlights can be flashed even though the headlight switch is in the "OFF" position.



B13A1-A

# WINDSHIELD WIPER AND WASHER SWITCH

The windshield wiper switch has three positions:

- 1. Intermittent wiper operation
- 2. Low-speed operation
- 3. High-speed operation

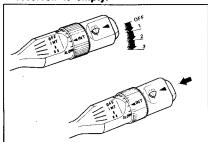
B13B1-A

# WINDSHIELD WASHER OPERATION

To use the windshield washer, press in on the button on the end of the wiper/washer lever. When the washer button is pressed, the wipers automatically make two passes across the windshield. The washer continues to operate as long as the button is depressed.

#### NOTE:

 Do not operate the washer more than 15 seconds at a time, or when the fluid reservoir is empty.

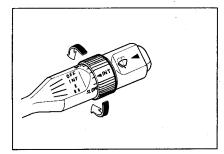


o In icy or snowy weather, be sure the wiper blades are not frozen to the glass prior to operating the wipers.

B14A1-A

# ADJUSTABLE INTERMITTENT WIPER OPERATION

To use the intermittent wiper feature, place the wiper switch in the "INT" position. With the switch in this position, the interval between wipes can be varied from 2 to 10 seconds by turning the Interval Adjuster Switch



B15A1-A

# REAR WINDOW WIPER AND WASHER (If installed)

The rear wiper is turned on by pushing in on the switch. Washer fluid is sprayed onto the glass as long as the switch is depressed. Do not operate the washer continuously for more than 20 seconds; this could damage the system.

Do not operate the wiper when the window is dry; this can result in scratching as well as premature wiper blade failure. For the same reason, do not operate the washer when the washer fluid reservoir is empty.

B16A1-A

# HAZARD WARNING SYSTEM

The hazard warning system should be used whenever you find it necessary to stop the car in a hazardous location. When you must make such an emergency stop, always pull off the roadway as far as possible.

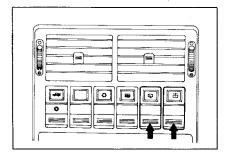
To turn on the hazard warning lights, push the hazard switch toward the right. This causes all turn signal lights to blink. The hazard warning lights will operate even though the key is not in the ignition. To turn off the hazard warning lights, push the hazard switch toward the left.

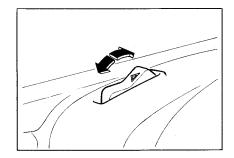
B17A1-A

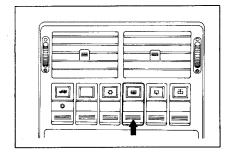
# REAR WINDOW DEFROSTER SWITCH

The rear window defroster is turned on by pushing in on the switch. At the same time, the rear window defroster indicator light is turned on. To turn the defroster off, push in on the switch a second time.

The rear window defroster automatically turns itself off after about 10 minutes. To restart the defroster cycle, push in on the switch again after it has turned itself off.







B19A1-A

# DIGITAL CLOCK (If installed)

There are three control buttons for the digital clock. Their functions are:

**HOUR** - Push "Hour" to advance the hour indicated.

**MIN** - Push "Min" to advance the minute indicated.

**SET -** Push "SET" to reset minutes to ":00" to facilitate resetting the clock to the correct time. When this is done:

Pressing "SET" between 10:30 and 11:29 changes the readout to 11:00 Pressing "SET" between 11:30 and 12:29 changes the readout to 12:00

B20A1-A

# INSTRUMENT PANEL LIGHT CONTROL (RHEOSTAT)

The instrument panel lights can be made brighter or dimmer by turning the instrument panel light control knob.

B21A1-A

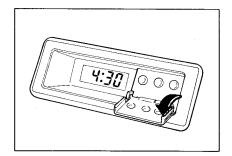
#### CIGARETTE LIGHTER

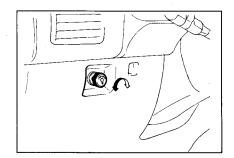
For the cigarette lighter to work, the key must be in the "ACC" position or the "ON" position.

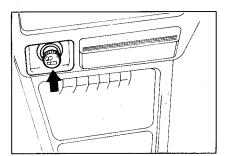
To use the cigarette lighter, push it all the way into its socket. When the element has heated, the lighter will pop out to the "ready" position.

Do not hold the cigarette lighter pressed in. This can damage the heating element and create a fire hazard.

If it is necessary to replace the cigarette lighter, use only a genuine Hyundai replacement or its approved equivalent.







B22A1-A

#### FRONT ASHTRAY

The front ashtray may be opened by pulling it out by its bottom edge. To remove the ashtray to empty or clean it, press down on the spring-loaded tab inside the ashtray and pull it all the way out. The ashtray lamp will only illuminate when the external lights are on.

B23A1-A

## **REAR ASHTRAY**

The rear ashtray may be opened by pulling it out by its top edge. To remove the ashtray to empty or clean it, press down on the spring-loaded tab inside the ashtray and pull it all the way out.

B24A1-A

# SUNROOF (If installed)

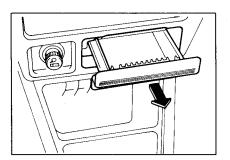
The sunroof can be electrically opened or closed. To open or to close, press and hold the button located in the front of the roof panel. Release the button when the sunroof reaches the desired position.

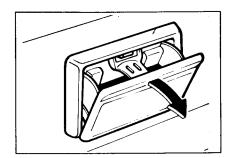
#### **CAUTION:**

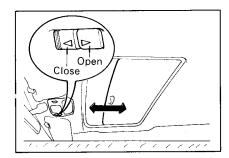
- Do not open the sunroof in severe cold temperature or when it is covered with ice or snow.
- o Periodically remove any dirt that may have accumulated on the guide rail.

## WARNING

Do not close a sunroof if anyone's hands, arms or other body parts, are between the sliding glass and the sunroof sash as this may cause an injury.







B24B1-A

# Sun Shade

Your Hyundai also is equipped with a sliding sunshade which you can manually adjust to let in light with the sunroof closed, or to block out light entirely.

If the sunroof does not electrically operate:

1. Remove the rectangular plastic tens in the

- Remove the rectangular plastic lens in the front of the roof panel.
- Insert the hexagonal head wrench into the socket. This wrench can be found in the vehicles glove box.
- Turn the wrench clockwise to open or counterclockwise to close.

B24C1-A

# INTERIOR LIGHT (With sunroof)

The lamp located in the control switch of the sunroof has three positions.

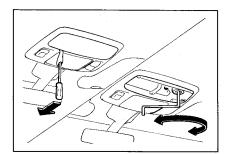
- 1. "ON": Light will remain on all the time.
- 2. "DR": Light will come on when a door is opened.
- 3. "•": Light is always off.

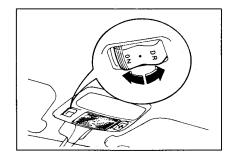
B25A1-A

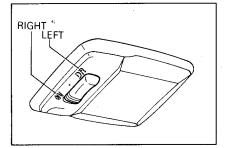
# INTERIOR LIGHT (Without sunroof)

The interior courtesy light has a 3-position switch. The three positions are:

- "DR" In the "LEFT" position, the interior courtesy light comes on when any door is opened, then goes out when it is closed.
- o "•" In the "MIDDLE" position, the light stays off even though a door is open.
- o "ON" In the "RIGHT" position, the light stays on at all times.







B26A1-A

#### **GLOVE BOX**

## WARNING

To avoid the possibility of injury in case of accident or a sudden stop, the glove box door should be kept closed when the car is in motion.

- o To open the glove box, pull on the glove box release lever.
- o The glove box door can be locked (and unlocked) with the key.

B27A1-A

## **OUTSIDE REAR VIEW MIRROR**

The outside rear view mirror on the driver's side is equipped with remote control for your convenience. It is operated by the control lever in the bottom front corner of the window. Before driving away, always check that your mirror is positioned so you can see directly behind you. When using the mirror, always exercise caution when attempting to judge the distance of vehicles behind you.

#### NOTE:

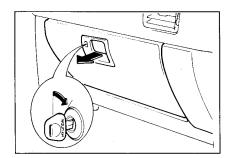
If the mirror control is jammed with ice, do not attempt to break it free using the control handle or by manipulating the face of the mirror. Use an approved spray de-icer (not radiator antifreeze) to release the frozen mechanism or move the vehicle to a warm place and allow the ice to melt.

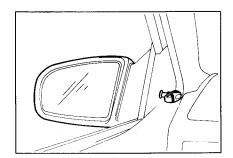
B28A1-A

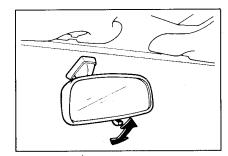
## DAY/NIGHT REAR VIEW MIRROR

Your Hyundai is equipped with a day/night inside rear view mirror.

The "night" position is selected by flipping the tab at the bottom of the mirror toward you. In the "night" position, the glare of headlights of cars behind you is reduced.







B29A1-A

# **PARKING BRAKE**

Always engage the parking brake before leaving the car. This also turns on the parking brake indicator light when the key is in the "ACC" or "ON" position. Before driving away, be sure that the parking brake is fully released and the indicator light is off.

- o To engage the parking brake, pull the lever up as far as possible.
- o To release the parking brake, pull up and press the thumb button. Then, while holding the button in, lower the brake lever.

B30A1-A

# FOLD DOWN REAR SEAT BACKS (If installed)

#### WARNING

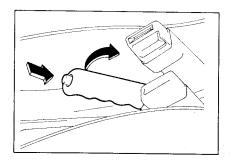
The purpose of the fold-down rear seat backs is to allow you to carry longer objects than could otherwise be accommodated.

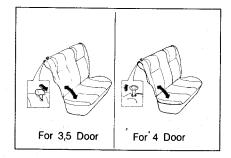
Do not allow passengers to sit on top of the folded-down seat back while the car is moving as this is not a proper seating position and no seat belts are available for use.

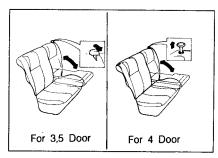
This could result in injury in case of an accident or sudden braking. Objects carried on the folded-down seat back should not extend higher than the top of the front seats. This could allow cargo to slide forward and cause injury or damage during sudden stops.

For greater convenience, the entire seatback may be folded down or the seat backs may be folded down individually.

- To unlock the seat back, pull the seat back locking knob, then pull forward on the seat back
- o When you return the seatback to its upright position, always be sure it has locked into position by pulling and pushing on the top of the seat back.







B31A1-A

# HATCHBACK DOOR/TRUNK LID

## WARNING

The hatchback door or trunk lid should always be kept completely closed while the vehicle is in motion. If it is left open or ajar, poisonous exhaust gases may enter the car resulting in sickness or serious injury to the occupants. See additional warnings concerning exhaust gases on page 2-2.

- The hatchback or trunk lid is opened by turning the key clockwise to release the lock, then raising the door manually.
- To close, lower the door, then press down on it until it locks. To be sure the door is securely fastened, always try to pull it up again.

B32A1-A

# CARGO AREA COVER (3 and 5 DOOR MODEL)

Nothing should be carried on top of the luggage cover. Loose materials could result in injury to vehicle occupants during sudden braking.

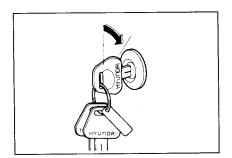
333A1-A

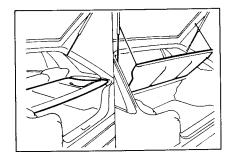
# REMOTE TRUNK LID RELEASE (If installed)

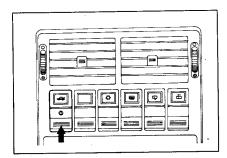
The hatchback or trunk lid is opened by pressing the button to release the lock, then raising the door manually. To close, lower the door, then press down on it until it locks. To be sure the door is securely fastened, always try to pull it up again.

## NOTE:

The trunk lid is released by a two step release switch. To release the trunk lid push the trunk lid switch once then push the switch firmly a second time.







B34A1-A

# HIGH-MOUNTED REAR STOP LIGHT

In addition to the lower-mounted rear stop lights on either side of the car, the high mounted rear stop light in the center of the rear window also comes on when the brakes are applied.

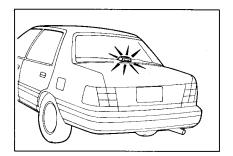
B35A1-A

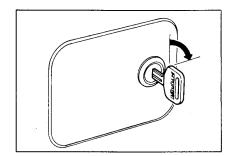
# FUEL FILLER CAP

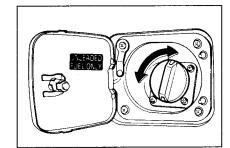
To remove the fuel filler cap, turn the cap clockwise until it can be removed. When installing the cap, always be sure that it is securely tightened.

WARNING

Gasoline vapors are dangerous. Before refueling, always stop the engine and never allow sparks, lit cigarettes or open flames near the filler area. If you need to replace the filler cap, it is recommended that you use a genuine Hyundai replacement part. If you open the fuel filler cap during high ambient temperatures, a slight "pressure sound" may be heard. This is normal and not a cause for concern.







B36A1-A

# REMOTE FUEL FILLER LID RELEASE (If installed)

The fuel-filler lid may be opened from inside the vehicle by pulling up on the fuel-filler lid release.

#### NOTE:

If the fuel-filler lid will not open because ice has formed around it, tap lightly or push on the lid to break the ice and release the lid. Do not pry on the lid. If necessary, spray around the lid with an approved de-icer fluid (do not use radiator anti-freeze) or move the vehicle to a warm place and allow the ice to melt.

B36B1-A

# Manual Fuel Filler Lid Release (Remote type only)

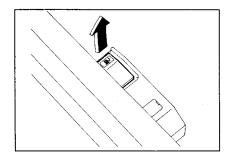
If the fuel filler lid cannot be opened by pushing the remote opener, a manual opener handle is located inside the trunk on the left side. Open the fuel filler lid by pulling on this handle as shown below.

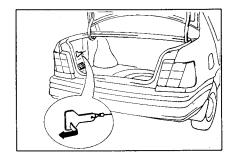
B37A1-A

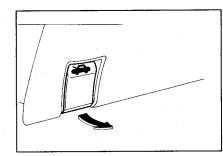
### HOOD RELEASE

- 1. Pull the release knob to unlatch the hood.
- Press the safety catch lever up and lift the hood.
- 3. Hold the hood open with the support rod.

Before closing the hood, return the support rod to its clip to prevent it from rattling. Lower the hood and make sure that it locks into place.







# **CAUTION:**

Make sure that the support rod has been released prior to closing the hood. Always double check to be sure the hood is firmly latched before driving away.

#### WARNING

The support rod must be inserted completely into the hole of the hood whenever you inspect the engine compartment to prevent the hood from falling and possibly injuring you. B38A1-A

#### SUN-VISOR

Your Hyundai is equipped with sun visor to give the driver and front passenger either frontal or side ward shade. The sun visors are fitted on both sides on standard models. To reduce glare or to shut out direct rays of the sun, turn the sun visor down to block the annoyance. A vanity mirror is provided on the back of the sun visor for the front passenger. A child restraint label containing useful information can be found on the sun visor as well. (Refer to pages (1-13)-(1-16) for additional information.)

#### **CAUTION:**

Do not place the sun visor in such a manner that it obscures visibility of the roadway, traffic or other objects.

B39A1-A

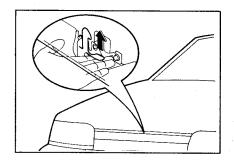
# STEERING WHEEL TILT LEVER (If installed)

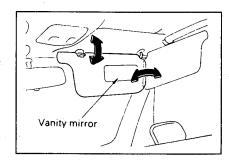
To adjust the steering wheel:

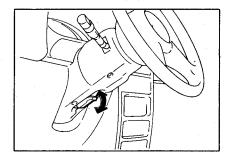
- 1. Push the lever downward to unlock.
- Raise or lower the steering wheel to the desired position.
- After adjustment, securely tighten the lever by pulling it upward.

### WARNING

Do not attempt to adjust the steering wheel while driving as this may result in loss of control of the vehicle and an accident.







B40A1-A

# QUARTER POCKET (3 Door Model) (If installed)

Your Hyundai is equipped with rear quarter pockets on each side for additional storage. Lift the door to open the pocket.

B41A1-A

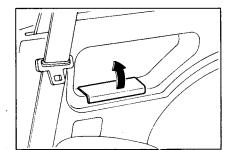
# REAR SIDE GLASS OPENER (3 Door Model)

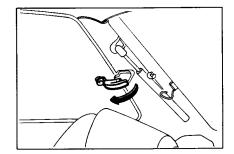
The rear side glass on each side can be opened by releasing the latch and pushing the glass. Pull the lever to close the glass. Be sure that the glass is securely closed.

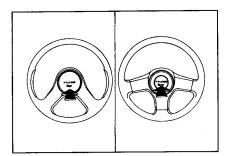
B42A1-A

# **HORN**

Press the center hub of the steering wheel to sound the horn.







B43A1-A

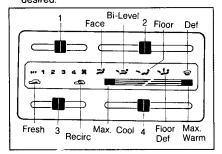
# HEATING AND VENTILATION LEVER TYPE (If installed)

There are four controls for the heating and cooling system. They are:

- Fan Speed Control.
   This is used to turn the fan on and select the fan speed.
- 2. Air Flow Control.

This is used to direct the flow of air. Air can be directed to the floor, dashboard outlets, or windshield. Five symbols are used to represent Face, Bi-Level, Floor, Floor-Defrost and Defrost air positions.

- Air Intake Control.
   This allows you to select fresh outside air or to recirculate inside air.
- Temperature Control.
   This is used to turn the heater on and off and to select the degree of heating desired.



R43R1-A

# **HEATING CONTROLS**

For normal heater operation, move the air intake control to the "Fresh" position and the air flow control to "Floor".

For faster heating, the air intake control should be placed in the intermediate position between "Fresh" and "Recirc".

For quickest heating, the control should be in the "Recirc" position.

If the windows fog up, move the air flow control to the "Def"(defroster) position and the air intake control to "Fresh".

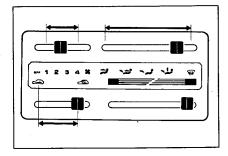
For maximum heat, move the temperature control to "Warm".

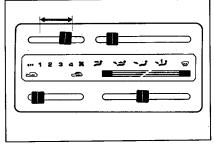
B43C1-A

# **BI-LEVEL HEATING**

Your Hyundai is equipped with bi-level heating controls. This makes it possible to have cooler air from the dashboard vents and warmer air from the floor outlets at the same time. To use this feature:

- o Set the air intake control to "Fresh".
- Set the air flow control at the "Bi-Level" position.
- o Set the temperature control between "Cool" and "Warm".





B43D1-A

### **VENTILATION**

To operate the ventilation system:

- o Set the air intake control on "Fresh".
- o To direct all intake air to the dashboard vents, set the airflow control to "Face".
- Adjust the fan speed control to the desired speed.
- o Set the temperature control between "Cool" and "Warm".

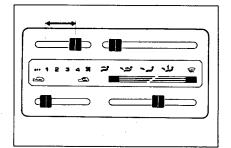
B43E1-A

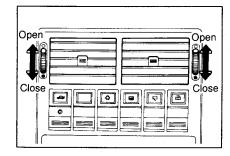
### **CENTER VENTILATOR**

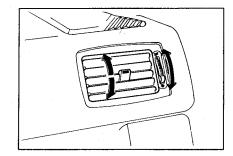
The center ventilators are located in the middle of the dashboard. To control the airflow, turn the air flow control knob on the side of the ventilator. To change the direction of the airflow, turn the control knob on the middle of the ventilator as desired.

B43F1-A
SIDE VENTILATOR

The side ventilators are located on each side of the dash board. The side vent knobs control the amount of outside air entering the vehicle through the side vents. These vents can also be closed, so no air enters through the side vents. To change the direction of the air flow, turn the control knob on the middle of the side ventilator as desired.







B43G1-A

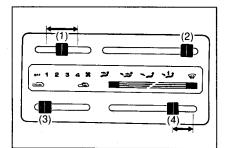
### **DEFROSTING/DEFOGGING**

To use the heating/ventilation system to defrost or defog the windshield:

- Set the air intake control (3) to the "Fresh" position.
- o Set the air distribution control (2) to the "Def" position.
- o Set the temperature control (4) to a comfortably warm position.
- Set the fan speed control (1) to position 3 or 4.
- o If vehicle is so equipped, turn on the A/C for increased defogging action.

### NOTE:

In high humidity areas the A/C can be used with the air intake in the "Recirc" position for increased defogging action.



B43H1-A

# **Operation Tips**

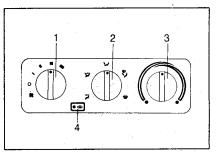
- o To keep dust or unpleasant fumes from entering the car through the ventilation system, temporarily set the air intake control at "Recirc". Be sure to return the control to "Fresh" when the irritation has passed to keep fresh air in the vehicle. This will help keep the driver alert and comfortable.
- Air for the heating/cooling system is drawn in through the grilles just ahead of the windshield. Care should be taken that these are not blocked by leaves, snow, ice or other obstructions.

B44A1-A

# **ROTARY TYPE (If installed)**

This model has four controls for the heating and cooling system.

- 1. Fan speed control
- 2. Air flow control
- 3. Temperature control
- 4. Air intake control



B44B1-A

# FAN SPEED CONTROL (BLOWER CONTROL)

This is used to turn the blower fan on and off and to select the fan speed.

Therefore the blower fan speed and the volume of air delivered from the system, may be controlled manually by setting the blower control between "I" and "IIII" position.

O 38

B44C1-A

#### AIR INTAKE CONTROL

This is used to select fresh outside air or to recirculate inside air.

Fresh

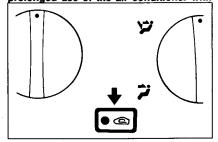
### \_\_\_\_ Recirculation

With the "fresh" mode selected, air enters the vehicle from outside and is heated or cooled according to the other functions selected.

With the "recirc" mode selected, air from within the passenger compartment is drawn through the heating system and heated or cooled according to the other functions selected.

#### NOTE:

It should be noted that prolonged operation of the heater in "recirc" mode will give rise to misting of the windshield and side windows and the air within the passenger compartment becoming stale. In addition prolonged use of the air conditioner with



the "Recirculate" mode selected may result in the air within the passenger compartment becoming excessively dry.

844D1-A

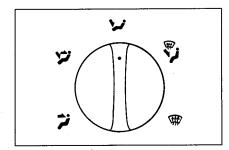
# AIR FLOW CONTROL

This is used to direct the flow of air. Air can be directed to the floor, dashboard outlets, or windshield. Five symbols are used to represent Face, Bi-Level, Floor, Floor-Defrost and Defrost air position.



# Face-Level

Selecting the "Face" mode will cause air to be discharged through the face level vents.





# **Bi-Level**

Air is discharged through the face vents and the floor vents. This makes it possible to have cooler air from the dashboard vents and warmer air from the floor outlets at the same time.



# Floor-Level

Air is discharged through the floor vents.



# Floor-Defrost Level

Air is discharged through the windshield defrost vents and the floor vents.



# **Defrost-Level**

Air is discharged through the windshield defrost vents.

B44E1-A

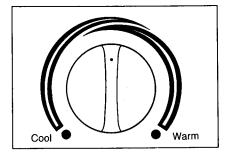
# **TEMPERATURE CONTROL**

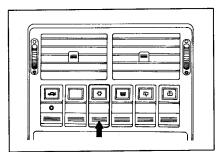
This is used to turn the heater on and off and to select the degree of heating desired.

B45A1-A

# AIR CONDITIONER SWITCH (If installed)

The air conditioner is turned on by pushing the button.





B45B1-A

# AIR CONDITIONING OPERATION (If installed) COOLING

To use the air conditioner to cool interior: o Set the side vent control to "OFF", to shut

- Set the side vent control to "OFF", to shu off outside air entry.
- o Turn on the fan control switch.
- Turn on the air conditioner switch by pushing in on the switch. The air conditioner indicator light should come on at the same time.
- o Set the air intake control to "Fresh".

- Set the temperature control to "Cool". ("Cool" provides maximum cooling. The temperature may be moderated by the control toward "Warm".)
- Adjust the fan control to the desired speed.
   For greater cooling, turn the fan control to one of the higher speeds or temporarily select the "Recirc" position on the air intake control.

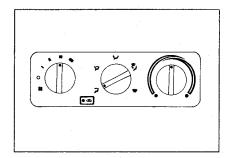
845C1-A

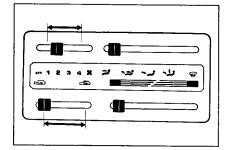
# DE-HUMIDIFIED HEATING

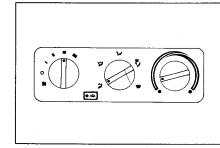
For dehumidified heating:

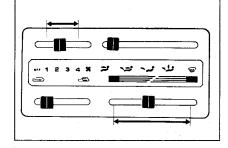
- o Turn on the fan control switch.
- Turn the air conditioner switch on by pushing in on the switch. The air conditioner indicator light should come on at the same time.
- o Set the air intake control to "Fresh".
- o Set the air flow control to "Face".

- o Adjust the fan control to the desired speed.
  o For more rapid action, set the fan at one
- of the higher speeds.
- o Adjust the temperature control to provide the desired amount of warmth.









B45D1-A

# **Operation Tips**

- o If the interior of the car is hot when you first get in, open the windows for a few minutes to expel the hot air.
- When you are using the air conditioning system, keep all windows closed to keep hot air out.
- When you must drive slowly, as in heavy traffic, shift to a lower gear. This increases engine speed, which in turn increases the speed of the air conditioning compressor.
- When driving up long grades, turn the air conditioner off to avoid the possibility of the engine overheating.
- During winter months or in periods when the air conditioner is not used regularly, turn on the air conditioner switch occasionally for a few minutes.

This will help circulate the lubricants and keep your system in peak operating condition.

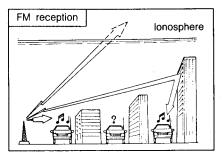
B50A1-A

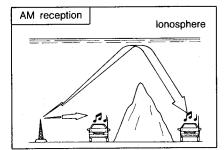
# STEREO SOUND SYSTEM How Car Audio Works

AM and FM radio signals are broadcast from transmitter towers located around your city. They are intercepted by the radio antenna on the fender of your car. This signal is then received by the radio and sent to your car speakers.

When a strong radio signal has reached your vehicle, the precise engineering of your audio system ensures high quality reproduction. However, in some cases the signal coming to your vehicle is not strong and clear. This can be due to factors such as the distance from the radio station, closeness of other strong radio stations or the presence of buildings, bridges or other large obstructions in the area.

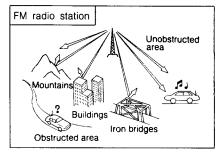
AM signal reception is usually better than FM reception. This is because AM radio waves are transmitted at low frequency. These long, low frequency radio waves can follow the curvature of the earth rather than travelling straight out into the atmosphere. In addition, they curve around obstructions so that they can provide better signal coverage. Because of this, clear AM broadcasts can be received at greater distances than FM broadcasts.

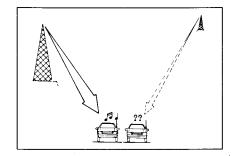


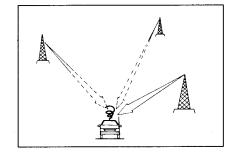


FM broadcasts are transmitted at high frequency and do not bend to follow the earth's surface. Because of this, FM broadcasts generally begin to fade at short distances from the station. Also, FM signals are easily affected by buildings, mountains, or other obstructions. These can result in certain listening conditions which might lead you to believe a problem exists with your radio. The following conditions are normal and do not indicate radio trouble:

- Fading As your car moves away from the radio station, the signal will weaken and sound will begin to fade. When this occurs, we suggest that you select another stronger station.
- o Flutter/Static Weak FM signals or large obstructions between the transmitter and your radio can disturb the signal causing static or fluttering noises to occur. Reducing the treble level may lessen this effect until the disturbance clears.
- o Station Swapping As a FM signal weakens, another more powerful signal near the same frequency may begin to play. This is because your radio is designed to lock onto the clearest signal. If this occurs, select another station with a stronger signal.
- o Multi-Path Cancellation Radio signals being received from several directions can cause distortion or fluttering. This can be caused by a direct and a reflected signal from the same station, or by signals from two stations with close frequencies. If this occurs, select another station until the condition has passed.

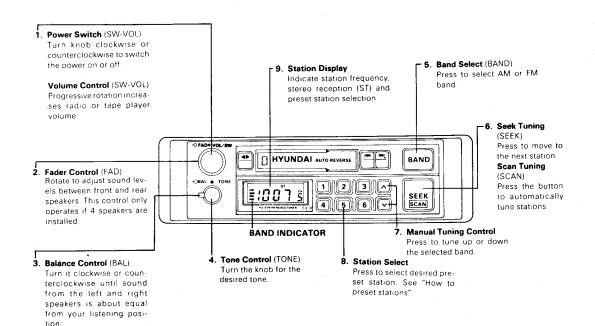






#### B51A1-A

# STEREO RADIO OPERATION (C-320 MODEL)



B51B1-A

# **OPERATING THE RADIO**

- 1. POWER ON-OFF/VOLUME CONTROL KNOB The radio unit may be operated when the ignition key is in the "ACC" or "ON" position. Rotate the knob clockwise to switch the radio unit on, and to increase the volume. Turn the knob counterclockwise to reduce the volume, and to switch the radio unit off.
- FADER CONTROL Used for four speaker sound systems only. Rotate the sleeve to adjust the sound levels between the front and rear speakers.
- BALANCE CONTROL KNÓB Adjust sound balance of right and left speakers for best stereo effect.
- 4. TONE CONTROL KNOB Rotate clockwise to emphasize treble. Rotate counterclockwise to emphasize bass.
- 5. AM/FM SELECTOR Press the button to select AM/FM. The band indicator will show the band selected. FM stereo reception will be indicated by the ST symbol in the Station Display.
- 6. SEEK OR SCAN TUNING BUTTON

**SEEK TUNING** - Press the SEEK button for less than two seconds and seek tuning will be activated. Tuner will go to the next listenable station.

**SCAN TUNING** - Press the SEEK button for more than two seconds and scan tuning will be activated with the frequency flashing in the display. Tuned frequency will increase, stopping for 5 seconds at each station. Press the SEEK button again, to hold desired station.

7. MANUAL TUNING CONTROL - Press
(^) to tune up the selected band. Press
(∨) to tune down the selected band.

#### NOTE:

When you hold the button, the tuning frequency will count up or down rapidly. The tuning will stop instantly as soon as you release the button.

- 8. STATION SELECT Press each button to choose the preset stations. Pre-setting of six AM and six FM stations is possible. The selected station number will be indicated in the Station Display. See "How to Preset Station" on the next column.
- 9. STATION DISPLAY The digital display will illuminate when the radio unit is switched on. The display contains the frequency of the station being played, as well as indicators for stereo FM reception and preset station selection.

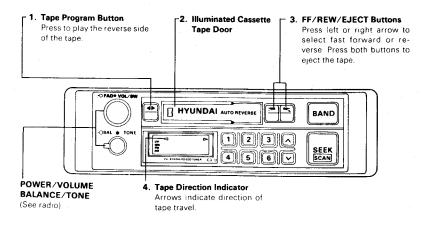
**HOW TO PRESET STATIONS** - Six AM and six FM stations may be programmed into the memory of the radio. Then, by simply pressing the band select button and/or one of the six station select buttons, you may recall any of these stations instantly. To program the stations, follow these steps:

- o Select either AM or FM band.
- Select the desired station to be stored by seek, scan or manual tuning.
- Determine the preset station select button you wish to use to access that station.
- o Press the station select button for more than two seconds. A select button indicator will show in the display indicating which select button you have depressed. The frequency display will flash after it has been stored into the memory.

You should then release the button, and proceed to program the next desired station. A total of 12 stations can be programmed by selecting one AM and one FM station per button.

o When completed, any preset station may be recalled by selecting AM or FM band and the appropriate Station Button. B52A1-A

# CASSETTE TAPE PLAYER OPERATION (C-320 MODEL)



B52B1-A

# OPERATING THE CASSETTE TAPE PLAYER

- TAPE PROGRAM BUTTON This allows you to play the reverse side of the tape by merely depressing the program button. An arrow will appear in the display to show tape direction.
- 2. ILLUMINATED CASSETTE TAPE DOOR
- FF/REW/EJECT BUTTONS When you
  press the button whose arrow is in the
  same direction as the tape play arrow in
  the display the tape will advance at high
  speed.

When you press the button whose arrow is in the opposite direction to the tape play arrow in the display the tape will rewind at high speed. To stop FF or REW action, press the opposite button or press the tape program button. But if the tape program button is pressed, it will also reverse the tape play direction. To eject the tape, press the FF and REW buttons simultaneously.

: Indicates the top side of the cassette is being played.

: Indicates the button side of the

cassette is being played.

852C1-A

# NEW AUTO REVERSE CASSETTE MECHANISM

- Dual Direction Automatic Azimuth
   Adjustment This will automatically
   maintain a precisely correct azimuth (head
   angle) position to guarantee optimum High
   Frequency Response.
- 2. Electronic Bridge Servo Motor This motor gives you more precise revolution and longer life than the conventional motor.
- 3. Auto Reverse and Tape Direction Memory - At the end of the tape, this automatically reverses the tape direction to play the other side of the cassette.
- Locking FF/REW Locking fast forward, rewind, provide convenience in locating music selection.

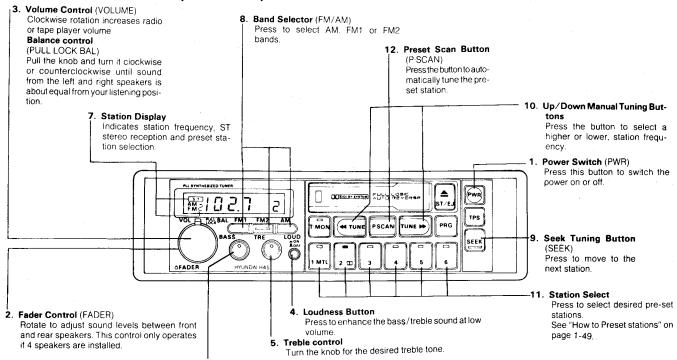
#### **FUNCTIONS**

1. Automatic (keyed ACC) - Automatically adjusts the FM receiver sensitivity for ideal reception based on the signal strength of both desired and nearby stations. A new FM circuit using Dual Gate FET/Balanced Mixer reduces interference distortion from nearby strong radio signals.

- 2. Signal Actuated Stereo Control (SASC II) This circuit monitors weak stereo FM signals for optimum reception. When the stereo signal falls below the level of noise free reception, the SASC II adjusts the receiver to reduce objectionable noise by changing gradually from stereo to mono mode and reducing high frequency response.
- 3. FM Noise Canceler FM noise canceler circuit automatically senses strong noise impulses received through the antenna and blocks their passage through the audio amplifier, giving impulse noise free FM sound. The overall FM benefit is clear and clean FM reception under all conditions without need for DX/LO switch, stereo/mono switch or pulse noise suppression.
- 4. Traveler's Advisory Reception (530 and 1610KHz) - Tune to these two special AM channels to receive local travel information in areas where this service is available in USA.

B53A1-A

# STEREO RADIO OPERATION (H455 MODEL)



6. Bass Control

Turn the knob for the desired bass tone.

B53B1-A

 POWER SWITCH - The radio unit may be operated when the ignition key is in the "ACC" or "ON" position.

Press the button to switch the power on. The LCD display shows the radio frequency in radio mode, or the tape direction indicator in tape mode. To switch the power off, press the button again.

#### NOTE:

The power switch is always illuminated when the car's ignition key is turned to "ACC" position regardless of whether the unit is on or off.

- FADER CONTROL Used for four speaker sound systems only. Rotate the sleeve to adjust the sound levels between the front and rear speakers.
- 3. VOLUME/BALANCE CONTROL Rotate the knob clockwise to increase the volume and turn the knob counter-clockwise to reduce the volume. To adjust the left/right balance, pull the knob out and while holding it out, rotate the knob. After adjusting, press the knob back in.

4. LOUDNESS BUTTON - Press to enhance the treble and bass sounds at any given volume. Switch on the loudness when listening at low volume; and when listening at high volume, switch off.

# → ON ■ OFF

- TREBLE CONTROL Depress to release the knob out and turn to the left or right for the desired treble tone.
- BASS CONTROL Depress to release the knob out and turn to the left or right for the desired bass tone.
- 7. STATION DISPLAY The digital display will illuminate when the radio unit is switched on. The station being played, as well as indicators for stereo FM reception and preset station selection will then be shown.

### 8. BAND SELECT

FM1: To select FM1 press this button and the FM radio frequency and selected band "1" shows on the LCD display.

FM2: To select FM2 press this button and the FM radio frequency and selected band "2" shows on the LCD display.

AM: To select AM, press this button and the AM radio frequency shows on the LCD display.

- 9. SEEK TUNING BUTTON Each time the button is pressed, the radio will search up the frequency scale and will automatically stop on the next broadcasting station. The seek tuning will search up only.
- 10. UP/DOWN MANUAL TUNING BUT-TONS - Manual tuning can be performed using the "≪ TUNE" button and "TUNE" button.

**◄** TUNE **TUNE** 

Press to count down Press to count up

#### NOTE:

When you hold the button for more than half a second, the tuning frequency will count up or down rapidly. The tuning will stop instantly as soon as you release the button.

11. STATION SELECT - Six (6) stations for AM, FM1 and FM2, respectively, can be preset in the built-in electronic memory circuit on this unit. Each preset station selector can select one (1) station and six (6) preset station selectors can be used to select a total of eighteen (18) stations.

#### How to Preset Station

- Tune to the desired station using the seek or manual tuning button.
- 2. Hold one of the preset station selectors in for about 2 seconds. (This will activate the memory circuit to preset the desired station.) Release the preset station selector after you hear the radio again. The station frequency being displayed will blink once to show that the memory has been set. The red light on each of the preset station selectors will light up, if the selector is pressed.

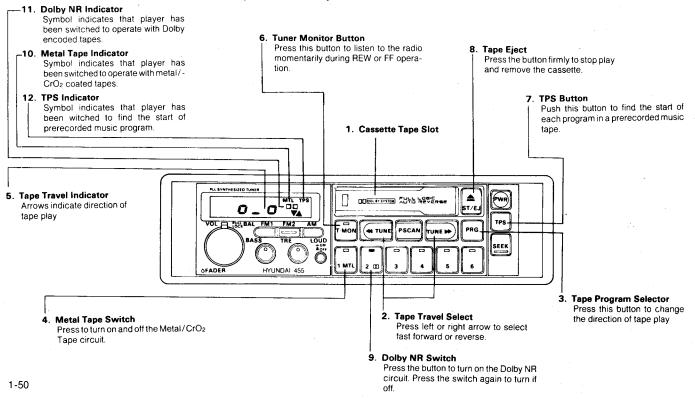
#### NOTES:

- Memory will not activate if the preset station selector is released quickly.
- If any of these preset station selectors is accidentally pressed and held for several seconds (about more than 2 sec.), the previously "preset" station will be erased; instead, a different station will be registered into that memory circuit in which the band is playing.
- 12. PRESET SCAN BUTTON Press the P.SCAN button and the unit begins to search the stations being previously programmed into the preset station selectors (1-6). For FM reception, twelve (12) preset stations, six (6) for FM1 and six (6) for FM2, respectively, can be scanned continuously; and the FM1 or FM2 indicator is shown on the LCD

display accordingly. Each preset station is scanned for several seconds and the radio frequency will blink on the LCD display. The red light on the scanned preset station selector button also will light up. When reaching the desired preset station, press the P.SCAN button again, or press the preset station selector itself.

B54A1-A

# CASSETTE TAPE PLAYER OPERATION (H-455 MODEL)



854B1-A

# **OPERATING THE CASSETTE PLAYER**

The cassette player operates using the same power, volume and tone controls as the radio unit (See "Operating the Radio". page 1-47). In addition, several other controls are available to control the direction of tape travel, sound quality, tape eject and to provide information on operating conditions.

- 1. CASSETTE TAPE SLOT Insert the cassette tape here. The tape should be positioned with the open, exposed tape side towards the right. Either side 1 or 2 may be on top when inserting the tape. Push the cassette in with your hand until the player mechanism captures the cassette. Insertion of the cassette will automatically cut off the radio and tape play will begin. The radio will play again automatically when the cassette is ejected. If the cassette has slack in the tape, the reel rotation detector is activated to reverse the tape being played. When the tape is reversed "repeatedly", it is an indication that the tape may be defective.
- 2. TAPE TRAVEL SELECT Make sure the TPS button is not pressed. Otherwise, the TPS function will operate. o Press the ▶ button for fast forward.

When the tape reaches its end, Auto Reverse will operate and play back the

opposite side of the tape.

- o Press the ■ button for rewind. When the tape is fully rewound, the tape plays back again on the same side.
- To stop ▶ or ◄ operation, press the ST/EJ button. The tape play will then resume from that position.

#### NOTES:

- o The **>>** or **◄** button should not be pressed before the tape has started play back.
- If the TPS button is switched on during REW or FF operation, the tape will stop and start playing the beginning of the nearest music program. See explanation on "TPS Button" on next page.
- The tape direction indicator will blink faster during REW or FF operation.
- 3. TAPE PROGRAM SELECTOR Press the button if you want to change the direction of tape play. The tape direction indicator O = O \* Or O \* O \* Shows on the LCD display.

If the button is not pressed, tape direction will change automatically at the end of the tape (AUTO REVERSE system).

4. METAL TAPE SWITCH - Press the button to turn on the Metal/CrO<sub>2</sub> tape circuitry and the red light on the button will light up. Press the button again to turn it off and the red light will go off. "Metal/CrO<sub>2</sub>" reproduction is designed to provide enhanced high frequency sound.

Operation of this feature is designed for

use with "Metal" or "Chrome" tapes recorded with 70 µs equalization, or Normal tapes recorded with 120 µs equalization Incorrect setting will not damage the tape or cassette player, but will cause an imbalance of the high frequencies.

- TAPE TRAVEL INDICATOR The tape direction indicator appears on the LCD display during tape operation.
  - ▲ : Indicates the top side of the cassette is being played.
  - ▼: Indicates the bottom side of the cassette is being played.
- 6. TUNER MONITOR BUTTON During REW or FF operation mode, the previously tuned radio station can be listered to simply press the T-MON button. The red light on the T-MON button will light up and the LCD display will show the radio frequency. At the end of REW or FF operation, the radio will stop playing and tape play will resume. T-MON will not work when the TPS button is switched on. To cancel, press the button again and the red light will go off.

# 7. TPS (Tape Program Sensor) SWITCH -

Press the button to find the starting point of each program in a pre-recorded music tape.

The quiet space between programs (must have at least a 3 sec. gap) can be sensed by the tape program sensor (TPS) circuit. If TPS is not required, press the TPS button again and the TPS indicator on the LCD will go off.

#### NOTE:

Most commercially available music cassette tapes are suitable for the TPS system.

# How to operate the TPS:

Press the TPS button and the TPS indicator appears on the LCD.

#### Forward TPS:

Pressing the ▶ button will play the beginning of the next music segment.

### **Rewind TPS:**

Pressing the ■ button will start replay at the beginning of the music just listened to.

### **NOTES:**

- The TPS system will operate if the TPS button is switched on even after the fast forward or rewind operation is already in process.
- The TPS system will only operate after a lapse of about 1.5 seconds from the start of playback.

# Tapes not suitable for TPS operation:

The TPS circuitry may not function properly for tapes described below, causing tapes to stop midway through a program or to overrun the space between programs.

- Tapes which contain intermittent sound such as conversations, lectures, news, piano-featured classical music, or music that includes many silent or mute passages.
- Tapes which have a very short time interval between recordings.
- Tapes which have a high level of noise or hum between programs.
- Tapes which have a particularly low recording level.
- 8. TAPE EJECT BUTTON Press the button firmly to stop tape play and to eject the cassette from the player. Be sure to remove the cassette from the player whenever it is not in use. Do not leave the tape inserted when not being played as it can cause damage to the tape and player and allow dust to enter the player mechanism. Eject the tape when listening is finished and return it to its protective cassette case.
- 9. DOLBY NR SWITCH Press the button to turn on the Dolby NR circuitry and the red light on the button will light up. Press the switch again to turn it off and the red light will go off. Dolby NR (noise reduction) is designed for use with cassette tapes

originally reproduced with the Dolby NR encoding process. It is designed to reduce tape hiss. Use of the Dolby NR feature on non-Dolby encoded tapes will result in a loss of high frequency sounds, but will not cause any damage to the tape or cassette player unit. In some cases, use of the Dolby NR feature can eliminate an annoying hiss from a worn or poorly recorded non-Dolby tape, and can contribute to listening pleasure.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. Dolby and the double-D symbol 🗖 are trade marks of Dolby Laboratories Licensing Corporation.

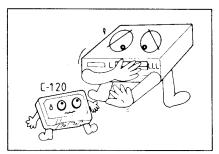
- Indicates operation of the tape player with the Metal/CrO2 switch depressed.
- 11. DD DOLBY NR INDICATOR Indicates operation of the tape player with the Dolby Noise Reduction switch depressed.
- **12.** TPS **INDICATOR** Indicates operation of the tape player with the TPS selector switch depressed.

B54C1-A

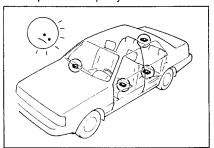
# Care of Cassette Tapes

Proper care of your cassette tapes will extend the tape life and increase your listening enjoyment. Always protect your tapes and cassette cases from direct sunlight, severe cold and dusty conditions. When not in use, cassettes should always be stored in the protective cassette case in which they were originally supplied. When the vehicle is very hot or cold, allow the interior temperature to become more comfortable before listening to your cassettes.

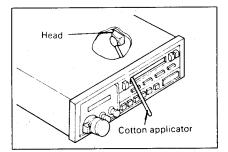
- o Never leave a cassette inserted in the player when not being played. This could damage the tape player unit and the cassette tape.
- We strongly recommend against the use of tapes longer than C-60 (60 minutes total).
   Tapes such as C-120 or C-180 are very



- thin and do not perform as well in the automotive environment.
- Be sure that the cassette label is not loose or peeling off or tape ejection may be difficult.
- Never touch or soil the actual audio tape surfaces.
- Keep all magnetized objects, such as electric motors, speakers or transformers away from your cassette tapes and tape player unit.
- Store cassettes in a cool, dry place with the open side facing down to prevent dust from setting in the cassette body.
- o Avoid repeated fast reverse usage to replay one given tune or tape section. This can cause poor tape winding to occur, and eventually cause excessive internal drag and poor audio quality in the cassette. If



- this occurs, it can sometimes be corrected by fast winding the tape from end to end several times. If this does not correct the problem, do not continue to use the tape in your vehicle.
- o The playback head, capstan and pinch rollers will develop a coating of tape residue that can result in deterioration of sound quality, such as a wavering sound. They should be cleaned monthly using a commercially available head cleaning tape or special solution available from audio speciality shops. Follow the supplier's directions carefully and never oil any part of the tape player unit.
- o Always be sure that the tape is tightly wound on its reel before inserting in the player. Rotate a pencil in the drive sprockets to wind up any slack.



2. BEHIND THE WHEEL

Driving Your Hyundai Excel

# **DRIVING YOUR HYUNDAI EXCEL**

C02A1-A

#### WARNING

# WARNING: ENGINE EXHAUST CAN BE DANGEROUS!

Engine exhaust fumes can be extremely dangerous. If, at any time, you smell exhaust fumes inside the vehicle, open the windows immediately.

#### o Do not inhale exhaust fumes.

Exhaust fumes contain carbon monoxide, a colorless, odorless gas that can cause unconsciousness and death by asphyxiation.

# o Be sure the exhaust system does not leak.

The exhaust system should be checked whenever the vehicle is raised to change the oil or for any other purpose. If you hear a change in the sound of the exhaust or if you drive over something that strikes the underneath side of the car, have the exhaust system checked as soon as possible.

# o Do not run the engine in an enclosed area.

Letting the engine idle in your garage, even with the garage door open, is a hazardous practice. Never run the engine in your garage any longer than it takes to start the engine and back the car out.

# o Avoid idling the engine for prolonged periods with people inside the car.

If it is necessary to idle the engine for a prolonged period with people inside the car, be sure to do so only in an open area with the air intake set at "Fresh" and fan operating at one of the higher speeds so fresh air is drawn into the interior.

If you must drive with the hatchback/trunk open because you are carrying objects that make this necessary:

- 1. Close all windows.
- 2. Open side vents.
- 3. Set the air intake control at "Fresh", the air flow control at "Floor" or "Face" and the fan at one of the higher speeds.

To assure proper operation of the ventilation system, be sure the ventilation air intakes located just in front of the windshield are kept clear of snow, ice, leaves or other obstructions.

C03A1-A

# BEFORE STARTING THE ENGINE

Before you start the engine, you should always:

- Look around the vehicle to be sure there are no flat tires, puddles of oil or water or other indications of possible trouble.
- 2. After entering the car, check to be sure the parking brake is engaged.
- Check your seat, seatback and headrest to be sure they are in their proper positions.
- Check the position of the interior and exterior mirrors.
- 5. Lock all the doors.
- 6. Fasten your seat belt and be sure that all other occupants have fastened theirs.
- Turn off all lights and accessories that are not needed.
- When you turn the ignition switch to "ON" check that all appropriate warning lights are operating and that you have sufficient fuel

C04A1-A

# COMBINATION IGNITION SWITCH AND STEERING LOCK

To Start the Engine Before starting the engine:

 If your Hyundai is equipped with a manual transaxle, place the shift lever in neutral and depress the clutch.

### NOTE:

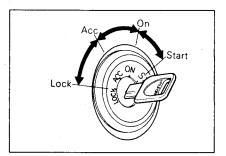
For safety, the engine will not start if the clutch pedal is not depressed fully. (If equipped)

o If your Hyundai has an automatic transaxle, place the shift lever in "P" (park).

#### NOTE:

The ignition key cannot be removed unless the shift lever is in the "P" (park) position. (If equipped).

To start the engine, insert the ignition key and turn it to the "START" position. Release it as soon as the engine starts. Do not hold the key in the "START" position for more than 15 seconds



C05A1-A

# **KEY POSITIONS**

#### **CAUTION:**

The engine should not be turned off or the key removed from the ignition key cylinder while the car is in motion.

### "ON"

When the key is in the "ON" position, the ignition is on and all accessories may be turned on. If the engine is not running, the key should not be left in the "ON" position. This will discharge the battery and may also damage the ignition system.

#### NOTE:

For additional information about starting, see page 2-4.

# "ACC"

With the key in the "ACC" position, the radio and other accessories may be operated. If you open the driver's door with the key in the "ACC" or "LOCK" position, the chime will sound to remind you that the key should be removed.

### "LOCK"

The key can be removed or inserted in this position. Steering is locked by removing the key. When unlocking the steering, insert the key, and then turn the steering wheel and key simultaneously.

C06A1-A

#### STARTING

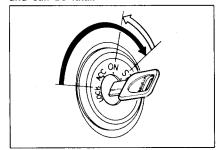
Normal starting with either a cold or warm engine is obtained without pumping or depressing the accelerator pedal. Simply turn the key to the "Start" position and release when the engine starts.

After the engine has started, allow the engine to run for 10 to 20 seconds prior to placing the vehicle in gear.

The starter should not be operated for more than 15 seconds at a time. Wait 15-30 seconds between starting attempts to protect the starter from overheating.

#### WARNING

Never run the engine in a closed or poorly ventilated area any longer than is needed to move your car in or out of the area. The carbon monoxide gas emitted is odorless and can be fatal.



C07A1-A

#### NORMAL CONDITIONS

The Starting Procedure:

- 1. Insert key, and fasten the seat belt.
- Place the gearshift lever (manual transaxle) in neutral or the selector lever (automatic transaxle) in "P" (park) position.
- After turning the ignition key to the "ON" position, make certain all warning lights and gauges are functioning properly before starting the engine.

#### WARNING

Be sure that the clutch is fully depressed when starting a manual transaxle vehicle. Otherwise, there is the potential to cause damage to the vehicle or injury to someone inside or outside the vehicle as a result of the forward or backward movement of the vehicle that will occur if the clutch is not depressed when the vehicle is started.

4. Turn the ignition key to the "Start" position and release it when the engine starts.

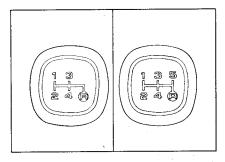
C09A1-A

# OPERATING THE MANUAL TRANSAXLE

Your Hyundai's manual transaxle has a conventional shift pattern. This shift pattern is also imprinted on the shift knob. The transaxle is fully synchronized in all forward gears so shifting to either a higher or a lower gear is easily accomplished.

# NOTE:

To shift into reverse, rest the lever in neutral for at least 3 seconds after your car is completely stopped. Then move the lever into the reverse position.



C09B1-A

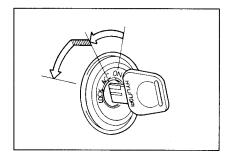
# Using the Clutch

The clutch should be pressed all the way to the floor before shifting, then released slowly. Do not rest your foot on the clutch pedal while driving. This can cause unnecessary wear. Do not partially engage the clutch to hold the car on an incline. This causes unnecessary wear. Use the parking brake to hold the car on an incline. Do not operate the clutch pedal rapidly and repeatedly.

C09D1-A

# To remove the ignition key (Manual Transaxie) (If installed)

- 1. Turn the ignition key to the "ACC" position.
- Simultaneously push and turn the ignition key counterclockwise from the "ACC" position to the "LOCK" position.
- The key can be removed in the "LOCK" position.



C09C1-A

# **Good Driving Practices**

- Never take the car out of gear and coast down a hill. This is extremely hazardous.
   Always leave the car in gear.
- o Don't "ride" the brakes. This can cause them to overheat and malfunction. Instead, when you are driving down a long hill, slow down and shift to a lower gear. When you do this, engine braking will help slow the car.
- Slow down before shifting to a lower gear.
   This will help avoid over-revving the engine, which can cause damage.
- Slow down when you encounter cross winds. This gives you much better control of your car.
- o Be sure the car is completely stopped before you attempt to shift into reverse. The transaxle can be damaged if you do not. To shift into reverse, depress the clutch, move the shift lever to neutral, wait a moment, then shift to the reverse position.
- o Exercise extreme caution when driving on a slippery surface. Be especially careful when braking, accelerating or shifting gears. On a slippery surface, an abrupt change in engine speed can cause the drive wheels to lose traction and the vehicle to go out of control.

C10A1-A

### RECOMMENDED SHIFT SPEEDS

The shift speeds as shown below are recommended for optimum fuel economy and performance.

#### NOTE:

On vehicles equipped with a 5-speed manual transaxle a slight clicking sound may be heard when shifting to 5th or reverse gears. This sound does not indicate any abnormality as it is produced by electric control of the shifting mechanism in the transaxle.

Shift from-to	Recommended mph (km/h)
1-2 or 2-1	15 (20)
2-3 or 3-2	25 (40)
3-4 or 4-3	35 (55)
4-5 or 5-4	45 (75)

C11A1-A

### **AUTOMATIC TRANSAXLE**

The highly efficient Hyundai automatic transaxle has four forward speeds and one reverse speed. It has a conventional shift pattern as shown below.

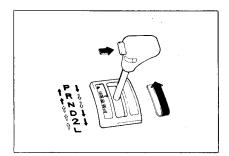
At night, with the side markers or head lights switched on, the appropriate symbol on the quadrant will be illuminated according to the range selected.

# **CAUTION:**

Never shift into "R" or "P" position while the car is moving.

- → Push the button when shifting
- ⇒ The selector lever can be shifted freely.

For optimum fuel economy, accelerate gradually. The transaxle will automatically shift to the second, third and overdrive gears.



C11B1-A

The function of each position is as follows:

# o P (Park):

Use to hold the vehicle in place when parking or while starting the engine; shift the select lever to the "P" position. Whenever parking the car, apply the parking brake and shift the selector lever to the "P" position.

# **CAUTION:**

Never place the selector lever in the "P" position unless the vehicle is fully stopped. Failure to observe this caution will cause severe damage to the transaxle.

C11C1-A

# o R(Reverse):

Use for backing up the vehicle. Bring the car to a complete stop before shifting the selector lever to "R" position.

C11D1-A

# o N (Neutral):

In the "N" position, the transaxle is in neutral, which means that no gears are engaged. The engine can be started with the shift lever in "N" position, although this is not recommended except when the engine dies and the car is moving.

C11E1-A

# o D (Drive):

Use for normal driving. The transaxle will automatically shift through a four-gear sequence, giving best economy and power.

Never downshift manually to "2" position or "L" position when vehicle speed is more than 60 mph (95 km/h).

C11F1-A

# o 2 (Second gear):

Use for driving on a slippery road, hill climbing or engine braking downhill. "2" automatically shifts between 1st and 2nd gears.

This means that no shift-up to 3rd gear is performed. However, the shift-up to 3rd gear is done when the car speed exceeds a certain value to prevent the engine from over-revying.

Manually move the selector to "D" returning to normal driving condition.

C11G1-A

# o L (Low gear):

Use for driving up a very steep grade or for engine braking when descending steep hills. When downshifting to "L", the transaxle will temporarily remain in second gear until the vehicle has slowed enough for low gear to engage. Do not exceed 31 mph (50 km/h) in low gear.

"L" shifts 1st gear only. However, shift-up to 2nd is performed when the car exceeds a certain speed, and as the speed increase, shift up to 3rd gear to prevent over-revving the engine.

# DRIVING YOUR HYUNDAI EXCEL

C11H1-A

# NOTE:

- o For smooth operation, depress the brake pedal when shifting from NEUTRAL or PARK to a forward or reverse gear.
- o With the brake pedal fully depressed, the shift lever is shifted from "P" (Parking) position to other positions. (If equipped)
- o It is always possible to shift from "R", "N", "D", "2", "L" position to "P" position.

C11I1-A

#### CAUTION:

- o Shift into "R" and "P" only when the vehicle has completely stopped.
- Do not accelerate the engine in the reverse or any of the forward positions with the brakes applied.
- o Always apply the footbrake when shifting from "P" or "N", to R, 2 or L.
- o Do not use the P (Park) position in place of the parking brake. Always set the parking brake, shift the transaxle into P (Park) and turn off the ignition when you leave the vehicle, even momentarily.
  - Never leave the vehicle unattended while the engine is running.
- o Check the automatic transaxle fluid level regularly, and add fluid as necessary.

C12A1-A

# Driving with Electronic Dual-range Automatic Transaxle

The new electronically controlled dual-range (Normal/Economy) 4 speed automatic transaxle is available for your Hyundai. The new automatic transaxle features the latest electronics to realize precise and reliable transaxle control by fingertip "Normal/Economy" switchover.

C12B1-A

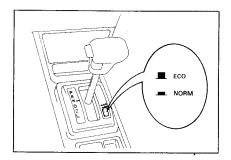
# To Drive with "Economy" Mode

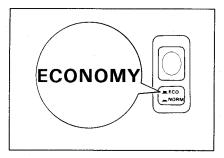
The "Economy" mode offers quiet and smooth auto-shifting with outstanding fuel economy. The "Economy" mode is recommended for normal driving. Set the driving pattern selector switch to the "ECO" position.

Push the overdrive switch, shift the selector lever to the "D" range and depress the accelerator pedal slowly. If you need rapid acceleration, fully depress the accelerator pedal.

### NOTE:

When the transaxle is in "Economy" mode and the vehicle speed is over 60 mph (100 km/h), the transaxle will not downshift into a lower gear when the accelerator pedal is depressed. The "Normal" mode must be selected for the transaxle to downshift.





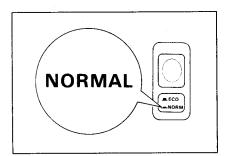
C12C1-A

# To Drive with "Normal" Mode

In the "Normal" mode you can obtain full potential of the engine for maximum acceleration and driveability. The "Normal" mode is recommended for higher speeds than the "Economy" mode, driving in mountainous area and strong acceleration. Set the driving pattern selector switch to the "NORM" position.

#### NOTE:

When the engine coolant temperature is low below 20°C (68°F), the transaxle will be in the "Economy" mode even though "Normal" mode is selected.



C12D1-A

### **Good Driving Practices**

- Never move the gear selector lever from "P" or "N" to any other position with the accelerator pedal depressed.
- o Never move the gear selector lever into "P" when the vehicle is in motion.
- o Be sure the car is completely stopped before you attempt to shift into "R".
- Never take the car out of gear and coast down a hill. This is extremely hazardous.
   Always leave the car in gear when moving.
- o Do not "ride" the brakes. This can cause them to overheat and malfunction. Instead, when you are driving down a long hill, slow down and shift to a lower gear. When you do this, engine braking will help slow the car.
- Slow down before shifting to a lower gear.
   Otherwise, the lower gear may not be engaged.
- Always use the parking brake. Do not depend on placing the transaxle in "P" to keep the car from moving.

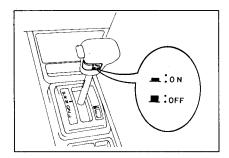
- o Exercise extreme caution when driving on a slippery surface. Be especially careful when braking, accelerating or shifting gears. On a slippery surface, an abrupt change in engine speed can cause the drive wheels to lose traction and the vehicle to go out of control.
- o Turn the overdrive switch on for good fuel economy and smooth driving. But if engine braking is needed in the "D" range or if repeated upshifting and downshifting between the 3rd and 4th gear is needed when climbing a gentle slope, it is recommended that the overdrive switch be turned off. Turn the overdrive switch back on immediately afterward.

C13A1-A

#### **OVERDRIVE SWITCH**

When the overdrive switch is turned on, the transaxle will automatically upshift to the second, third and overdrive gears. When the overdrive switch is turned off, the transaxle will not upshift to the overdrive gear at all. For normal driving, the selector lever should be left in the "D" position and turn the overdrive switch on. To move the selector lever, the push button on the selector lever handle may have to be depressed first.

If you need to accelerate rapidly, press the accelerator pedal all the way to the floor. The transaxle will automatically shift to a lower gear, depending on the speed.



C14A1-A

# **GOOD BRAKING PRACTICES**

#### WARNING

Nothing should be carried on top of the cargo area cover behind the rear seat. If there were an accident or a sudden stop, such objects could move forward and cause damage to the vehicle or injure the occupants.

- After being parked, check to be sure the parking brake is not engaged and that the parking brake indicator light is out before driving away.
- o Driving through water may get the brakes wet. They can also get wet when the car is washed. Wet brakes can be dangerous! Your car will not stop as quickly if the brakes are wet and it may also pull to one side. To dry the brakes, apply the brakes lightly until the braking action returns to normal, taking care to keep the car under control at all times. If the braking action does not return to normal, stop as soon as it is safe to do so and call your Hyundai dealer for assistance.
- o Don't coast down hills with the car out of gear. This can be dangerous. Keep the car in gear at all times, use the brakes to slow down, then shift to a lower gear so that engine braking will help you maintain a safe speed.
- Don't ride" the brake pedal. Resting your foot on the brake pedal while driving can be dangerous because it can result in the

- brakes overheating and losing their effectiveness. It also increases the wear of the brake components.
- o If a tire goes flat while you are driving, apply the brakes gently and keep the car pointed straight ahead while you slow down. When you are moving slowly enough for it to be safe to do so, pull off the road and stop in a safe place.
- If your car is equipped with an automatic transaxle, don't let your car creep forward.
   To avoid creeping forward, keep your foot on the brake pedal when the car is stopped.
- o Use caution when parking on a hill. Engage the parking brake and place the gear selector lever in "P" (automatic transaxle) or in first or reverse gear (manual transaxle). If your car is facing downhill, turn the front wheels into the curb to help keep the car from rolling.
  - If your car is facing uphill, turn the front wheels into the curb to help keep the car from rolling. If there is no curb or if it is required by other conditions to keep the car from rolling, block the wheels.
- o Under some conditions your parking brake can freeze in the engaged position. This is most likely to happen when there is an accumulation of snow or ice around or near the rear brakes or if the brakes are wet. If you think the parking brake may freeze, apply it only temporarily while you put the gear selector lever in "P"

# **DRIVING YOUR HYUNDAI EXCEL**

(automatic) or in first or reverse gear (manual transaxle) and block the rear wheels so the car cannot roll. Then release the parking brake.

C15A1-A

#### DRIVING FOR ECONOMY

You can save fuel and get more miles from your car if you follow these suggestions:

- o Drive smoothly. Accelerate at a moderate rate. Don't make "jack-rabbit" starts or full-throttle shifts and maintain a steady cruising speed. Don't race between stoplights. Try to adjust your speed to that of the other traffic so you don't have to change speeds unnecessarily. Avoid heavy traffic whenever possible. Always maintain a safe distance from other vehicles so you can avoid unnecessary braking. This also reduces brake wear.
- Drive at a moderate speed. The faster you drive, the more fuel your car uses. Driving at a moderate speed, especially on the highway, is one of the most effective ways to reduce fuel consumption.
- o Don't "ride" the brake or clutch pedal. This can increase fuel consumption and also increase wear on these components. In addition, driving with your foot resting on the brake pedal may cause the brakes to overheat, which reduces their effectiveness and may lead to more serious consequences.

- o Take care of your tires. Keep them inflated to the recommended pressure. Incorrect inflation, either too much or too little, results in unnecessary tire wear. Check the tire pressures at least once a month.
- o Be sure that the wheels are aligned correctly. Improper alignment can result from hitting curbs or driving too fast over irregular surfaces. Poor alignment causes faster tire wear and may also result in other problems as well as greater fuel consumption.
- o Keep your car in good condition. For better fuel economy and reduced maintenance costs, maintain your car in accordance with the maintenance schedule in Section 5. If you drive your car in severe conditions, more frequent maintenance is required (see Section 5 for details).
- o Keep your car clean. For maximum service, your Hyundai should be kept clean and free of corrosive materials. It is especially important that mud, dirt, ice, etc. not be allowed to accumulate on the underside of the car. This extra weight can result in increased fuel consumption and also contribute to corrosion.
- Travel lightly. Don't carry unnecessary weight in your car. Weight is an enemy of good fuel economy.
- Don't let the engine idle longer than necessary. If you are waiting (and not in traffic), turn off your engine and restart only when you're ready to go.

- Remember, your Hyundai does not require extended warm-up. As soon as the engine is running smoothly, you can drive away.
   In very cold weather, however, give your engine a slightly longer warm-up period.
- o Don't "lug" or "over-rev" the engine. Lugging is driving too slowly in too high a gear resulting in the engine bucking. If this happens to you, shift to a lower gear. Over-revving is racing the engine beyond its safe limit. This can be avoided by shifting at the recommended speeds.
- Use your air conditioning sparingly. The air conditioning system is operated by engine power so your fuel economy is reduced when you use it.

C16A1-A

### SMOOTH CORNERING

Avoid braking or gear changing in corners, especially when roads are wet. Ideally, corners should always be taken under gentle acceleration. If you follow these suggestions, tire wear will be held to a minimum.

C17A1-A

#### WINTER DRIVING

The more severe weather conditions of winter result in greater wear and other problems. To minimize the problems of winter driving, you should follow these suggestions:

C17B1-A

# **Snow or Icy Conditions**

To drive your vehicle in deep snow, it may be necessary to use snow tires or to install tire chains on your tires. If snow tires are needed, it is necessary to select tires equivalent in size and type to the original equipment tires. Failure to do so may adversely affect the safety and handling of your car.

Furthermore, speeding, rapid acceleration, sudden brake applications, and sharp turns are potentially very hazardous practices. During deceleration, use engine braking to the fullest extent. Sudden brake applications on snowy or icy roads may cause skids to occur. You need to keep sufficient distance between the vehicle in operation in front and your vehicle. Also, apply the brake gently, it should be noted that installing tire chains on the tire will provide a greater driving force, but will not prevent side skids.

### NOTE:

Tire chains are not legal in all states. Check state laws before fitting tire chains,

C17C1-A

# Use High Quality Ethylene Glycol Coolant

Your Hyundai is delivered with high quality ethylene glycol coolant in the cooling system. It is the only type of coolant that should be used because it helps prevent corrosion in the cooling system, lubricates the water pump and prevents freezing. Be sure to replace or replenish your coolant in accordance with the maintenance schedule in Section 5. Before winter, have your coolant tested to assure that it's freezing point is sufficient for the temperatures anticipated during the winter.

C17D1-A

# **Check Battery and Cables**

Winter puts additional burdens on the battery system. Visually inspect the battery and cables as described in Section 6. The level of charge in your battery can be checked by your Hyundai dealer or a service station.

C17F1-A

# Change to "Winter Weight" Oil if Necessary

In some climates it is recommended that a lower viscosity "winter weight" oil be used during cold weather. See Section 9 for recommendations. If you aren't sure what weight oil you should use, consult your Hyundai dealer.

C17F1-A

# Check Spark Plugs and Ignition System

Inspect your spark plugs as described in Section 6 and replace them if necessary. Also check all ignition wiring and components to be sure they are not cracked, worn or damaged in any way.

C17G1-A

# To Keep Locks from Freezing

To keep the locks from freezing, squirt an approved de-icer fluid or glycerine into the key opening. If a lock is covered with ice, squirt it with an approved de-icing fluid to remove the ice. If the lock is frozen internally, you may be able to thaw it out by using a heated key. Handle the heated key with care to avoid burning the fingers.

C17H1-A

# Use Approved Anti-Freeze in Window Washer System

To keep the water in the window washer system from freezing, add an approved anti-freeze solution in accordance with instructions on the container. Window washer anti-freeze is available from Hyundai dealers and most auto parts outlets. Do not use engine coolant or other types of anti-freeze as these may damage the finish.

C17I1-A

# Don't Let Your Parking Brake Freeze

Under some conditions your parking brake can freeze in the engaged position. This is most likely to happen when there is an accumulation of snow or ice around or near the rear brakes or if the brakes are wet. If you think the parking brake may freeze, apply it only temporarily while you put the gear selector lever in "P" (automatic) or in first or reverse gear (manual transaxle) and block the rear wheels so the car cannot roll. Then release the parking brake.

C17.I1-A

# Don't Let Ice and Snow Accumulate Underneath

Under some conditions, snow and ice can build up under the fenders and interfere with the steering. When driving in severe winter conditions where this may happen, you should periodically check underneath the car to be sure the movement of the front wheels and the steering components are not obstructed

C17K1-A

# **Carry Emergency Equipment**

Depending on the severity of the weather where you drive your car, you should carry appropriate emergency equipment. Some of the items you may want to a carry include tire chains, tow straps or chains, flashlight, emergency flares, sand, a shovel, jumper

cables, a window scraper, gloves, ground cloth, coveralls, a blanket, etc.

C18A1-A

# HIGH SPEED MOTORING Pre-Trip Inspections

1. Tires:

Adjust the tire inflation pressures for highway driving. Low tire inflation pressures will result in overheating and possible failure of the tires.

Avoid using worn or damaged tires which may result in reduced adhesion or tire failure.

# NOTE:

# Never exceed the maximum tire inflation pressure shown on the tires.

- 2. Fuel, engine coolant and engine oil; High speed travel consumes 1.5 times more fuel than urban motoring. Do not forget to check both engine coolant and engine oil.
- 3. Fan belt;

A loose or damaged fan belt may result in overheating of the engine.

C19A1-A

### **USE OF LIGHTS**

Check your lights regularly for correct operation and always keep them clean. When driving during the day in conditions of poor visibility, it is helpful to drive with headlights on low beam. This enables you to be seen as well as to see.

C20A1-A

# TRAILER TOWING

Your Hyundai should not be used to tow a trailer. It is designed to be compact and light for good fuel economy, and is not designed as a trailer-towing vehicle.

Damages or malfunctions caused by towing may not be covered by the limited warranties applying to your Hyundai. Damages or malfunctions that result from towing a trailer for commercial purposes are specifically not covered by Hyundai limited warranties.

D02A1-A

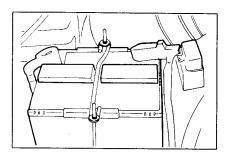
# IF THE ENGINE WILL NOT START CAUTION:

If the engine will not start, do not push or pull the car to start it. This could result in a collision or cause other damage. In addition, push or pull starting may cause the catalytic converter to be overloaded and create a fire hazard.

D02B1-A

# If Engine Doesn't Turn Over or Turns Over Slowly

- If your car has an automatic transaxle be sure the gear selector lever is in "N" or "P" and the emergency brake is set.
- 2. Check the battery connections to be sure they are clean and tight.
- Turn on the interior light. If the light dims or goes out when you operate the starter, the battery is discharged.



 Do not push or pull the vehicle to start it. See instructions for "Jump Starting" on the following pages.

D02C1-A

# If Engine Turns Over Normally but Does Not Start

- Check fuel level.
- Check all connectors at distributor, coil and spark plugs. Replace any that may be disconnected or loose.
- If engine still refuses to start, call a Hyundai dealer or seek other qualified assistance.

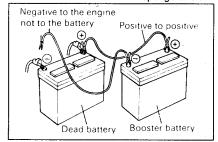
Distributor Spark plug D03A1-A

### JUMP STARTING

#### WARNING

Jump starting can be dangerous! If these instructions are not followed exactly, serious personal injury and damage to the vehicle may occur! If you are not sure how to follow this procedure, seek qualified assistance. Automobile batteries contain sulfuric acid. This is poisonous and highly corrosive. When jump starting, wear protective glasses and be careful not to get acid on yourself, your clothing or on the car.

o If you should accidentally get acid on your skin or in your eyes, immediately remove any contaminated clothing and flush the area with clear water for at least 15 minutes. Then promptly obtain medical attention. If you must be transported to an emergency facility, continue to apply water to the affected area with a sponge or cloth.



- The gas produced by the battery during the jump-start operation is highly explosive. Do not smoke or allow a spark or open flame in the vicinity.
- The battery being used to provide the jump start must be 12-volt. If you cannot determine that it is a 12-volt battery, do not attempt to use it for the jump start.
- o To jump start a car with a discharged battery, follow this procedure exactly:
- If the booster battery is installed in another vehicle, be sure the two vehicles are not touching.
- 2. Turn off all unnecessary lights and accessories in both vehicles.
- If applicable remove all vent caps from both batteries. Check the fluid level in the discharged battery and replenish if required, preferably with distilled water. Next, cover the open vents with rags or pieces of cloth. This is done to reduce the spread of dangerous gases and the chance of explosion.
- 4. Attach the clamps of the jumper cable in the exact order shown on the previous page. That is, first, attach one clamp of the jumper cable to the positive (+) post or cable of the discharged battery. Then attach the other end of the same cable to the positive (+) post or cable of the booster battery. Next, using the other cable, attach one clamp to the negative (-) post or cable of the booster battery. Then attach the other end of that cable to a solid metal part

- of the engine away from the battery. Do not connect the cable to any moving part.
- 5. Start the engine in the car with the booster battery and let it run for a few minutes. This will help to assure that the booster battery is fully charged. During the jumping operation, run the engine in this vehicle at about 2000 rpm.
- Start your engine using the normal starting procedure. After the engine starts, leave the jumper cables connected and let the engine run at fast idle or about 2000 rpm for several minutes.
- 7. Following the exact reverse order of their being attached, carefully remove the jumper cables. Remove the negative cable first, then the positive cable.
- Carefully remove the pieces of cloth that were used to cover the batteries and dispose of them. These cloths may now be contaminated with sulfuric acid.
- 9. Replace battery vent caps.

If you do not know why your battery became discharged (because the lights were left on, etc.), have the charging system checked by your Hyundai dealer.

#### D04A1-A

# IF THE ENGINE OVERHEATS

If your temperature gauge indicates overheating, you experience a loss of power, or hear loud pinging or knocking, the engine is probably too hot. If this happens to you, you should:

- Pull off the road and stop as soon as it is safe to do so.
- Place the gear selector lever in "P" (automatic), or neutral (manual transaxle) and set the parking brake. If the air conditioner is on, turn it off.
- 3. If coolant is running out under the car or steam is coming out from the hood, stop the engine. Do not open the hood until the coolant has stopped running or the steaming has stopped. If there is no visible loss of coolant and no steam, leave the engine running and check to be sure the engine cooling fan is operating. If the fan is not running, turn the engine off.
- 4. Check to see if the water pump drive belt is missing. If it is not missing, check to see that it is tight. If the drive belt seems to be satisfactory, check for coolant leaking from the radiator, hoses or under the car. (If the air conditioner had been in use, it is normal for cold water to be draining from it when you stop).

#### WARNING

While the engine is running, keep hands and clothing away from moving parts such as the fan and drive belts to prevent injury.

If the water pump drive belt is broken or coolant is leaking out, stop the engine immediately and call the nearest Hyundai dealer for assistance.

#### WARNING

Do not remove the radiator cap when the engine is hot. This can allow coolant to be blown out of the opening and cause serious burns.

- If you cannot find the cause of the overheating, wait until the engine temperature has returned to normal. Then, if coolant has been lost, carefully remove the radiator cap and add water to bring the fluid level in the reservoir up to the halfway mark.
- Proceed with caution, keeping alert for further signs of overheating. If overheating happens again, call a Hyundai dealer for assistance.

#### CAUTION:

Serious loss of coolant indicates there is a leak in the cooling system and this should be checked as soon as possible by a Hyundai dealer. D05A1-A

#### SPARE TIRE

The following instructions for the temporary spare tire should be observed:

 Check inflation pressure as soon as practical after installing the spare tire, and adjust to the specified pressure. The tire pressure should be periodically checked and maintained at the specified pressure while the tire is stored.

#### Spare Tire Pressure

Tire Size	T105/70D14				
Inflation Pressure	420kPa (60psi)				

- The spare tire should only be used temporarily and should be returned to the luggage compartment as soon as the original tire can be repaired or replaced.
- Continuous use at speeds of over 80 km/h (50 mph) is not recommended.
- As the temporary spare tire is specifically designed for your car, it should not be used on any other vehicle.
- 5. The temporary spare tire should not be used on any other wheels, nor should standard tires, snow tires, wheel covers or trim rings be used with the temporary spare wheel. If such use is attempted, damage to these items or other car components may occur.

The temporary spare tire pressure should be checked once a month while the tire is stored.

# **CAUTION:**

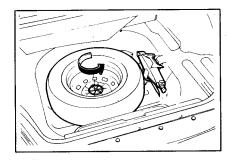
- o Do not use snow chains with your temporary spare tire.
- o Do not use more than one temporary spare tire at a time.

D05C1-A

# Handling the Spare Tire

Remove the installation bolt to remove the spare tire.

To replace the spare tire in its storage compartment, tighten the bolt firmly with your fingers until the spare tire has no more play.



D0641-4

#### IF YOU HAVE A FLAT TIRE

If a tire goes flat while you are driving:

- 1. Take your foot off the accelerator pedal and let the car slow down while driving straight ahead. Do not apply the brakes immediately or attempt to pull off the road as this may cause a loss of control. When the car has slowed to a speed when it is safe to do so, brake carefully and pull off the road. Drive off the road as far as possible and park on firm, level ground. If you are on a divided highway, do not park in the median area between the two traffic lanes.
  - 2. When the car is stopped, turn on your emergency hazard flashers, set the parking brake and put the transaxle in "P" (automatic) or reverse (manual transaxle).
- Have all passengers get out of the car. Be sure they all get out on the side of the car that is away from traffic.
- 4. Change the tire following the instructions provided on the following pages.

D07A1-A

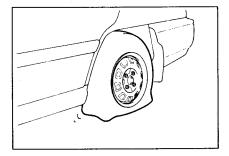
#### CHANGING A FLAT TIRE

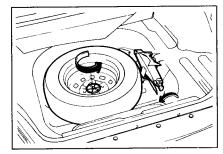
The procedure described on the following pages can be used to rotate tires as well as to change a flat tire. When preparing to change a flat tire, check to be sure the gear selector lever is in "P" (automatic) or reverse gear (manual transaxle) and that the parking brake is set, then:

D07B1-A

### 1. Obtain Spare Tire and Tool

Remove the spare tire and take out the jack and tool bag from the trunk.





D07C1-A

#### 2. How to Use the Flex Wrench

Remove the flex wrench from the jack. Place the stopper of the flex wrench to the position (LOCK) shown in the illustration to lock the handle, and remove the wheel nut.

To use the flex wrench as a jack handle, place the stopper at the position (FREE) shown in the illustration. When the flex wrench is stored, place the stopper at the FREE position and attach the wrench to the jack.

D07D1-A

#### 3. Block the Wheel

Block the wheel that is diagonally opposite from the flat to keep the vehicle from rolling when the car is raised on the jack.

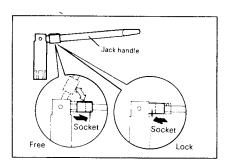
D07E1-A

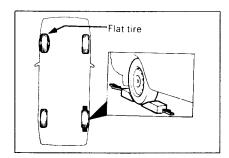
# 4. Remove Wheel Cover (If installed)

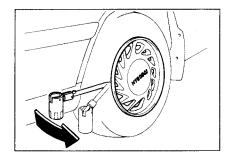
- Insert the flattened end of the flex wrench between the wheel cover and rim about 5-10 mm
- Pull the flex wrench head toward you about 15 degrees.
- Hit the flex wrench head about 2 or 3 times with your hand.
- Make use of the fully opened gap to remove the wheel cover with your hand.

#### WARNING

Wheel covers may have sharp edges. Remove wheel covers only by the method described above. Removal by any other method may result in injury or severe lacerations.







00761 4

### 5. Loosen Wheel Nuts

The wheel nuts should be loosened slightly before raising the car. To loosen the nuts, turn the wrench handle counterclockwise. When doing this, be sure that the socket is seated completely over the nut so it cannot slip off. For maximum leverage position the wrench so the handle is to the right as shown in the drawing. Then, while holding the wrench near the end of the handle, pull up on it with steady pressure. Do not remove the nuts at this time. Just loosen them about one-half turn

D07G1-A

#### 6. Put the Jack in Place

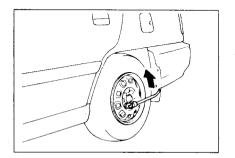
The base of the jack should be placed on firm, level ground. The jack should be positioned as shown in the drawing.

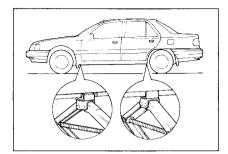
007H1-A

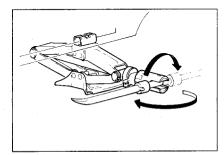
### 7. Raising the Car

Install the flex wrench into the jack as shown in the drawing. To raise the vehicle, turn the jack handle clockwise. As the jack begins to raise the vehicle, double check that it is properly positioned and will not slip. If the jack is on soft ground or sand, you may find it necessary to place a board, brick, flat stone or other object under the base of the jack to keep it from sinking.

Raise the car high enough so that the fully inflated spare tire can be installed. To do this, you will need more ground clearance than is required to remove the flat tire.







#### WARNING

Do not get under the car when it is supported by the jack! This is very dangerous as the vehicle could fall and seriously injure you. No one should stay in the car while the jack is being used.

D0711-A

### 8. Changing Wheels

Use the flex wrench to loosen the wheel nuts, then remove them with your fingers. Slide the wheel off the studs and lay it flat so it cannot roll away. To put the wheel on the hub, pick up the spare tire, line up the holes with the studs and slide the wheel onto them. If this is difficult, tip the wheel slightly and get the top hole in the wheel lined up with the top stud. Then jiggle the wheel back and forth until the wheel can be slid over the other studs.

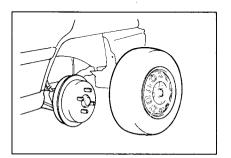


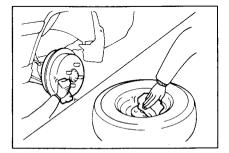
Before putting the wheel into place, be sure that there is nothing on the hub or wheel (such as mud, tar, gravel, etc.) that interferes with the wheel fitting solidly against the hub. If there is, remove it. If there is not good contact on the mounting surface between the wheel and hub, the wheel nuts could come loose and cause the loss of a wheel.

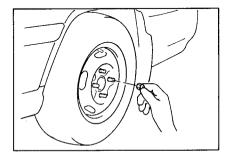
D07.11.A

### 9. Re-install Wheel Nuts

Put the wheel nuts on the studs and tighten them finger tight. The nuts should be installed with their small diameter ends directed inward. Jiggle the tire to be sure it is completely seated, then tighten the nuts with your fingers again.







D07K1-A

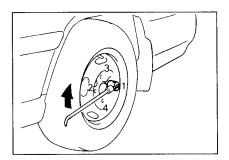
# 10. Lower Vehicle and Tighten Nuts

Lower the car to the ground by turning the flex wrench counterclockwise. Then position the wrench as shown in the drawing and tighten the wheel nuts. Be sure the socket is seated completely over the nut. Do not stand on the flex wrench handle or use an extension pipe over the flex wrench handle.

Go around the wheel tightening every other nut until they are all tight. Then double-check each nut for tightness. After changing wheels, have a technician tighten the wheel nuts to their proper torque as soon as possible.

#### Wheel nut tightening torque

Steel wheel & aluminium alloy wheel: 65-80 lb.ft (900-1,100 kg.cm)



D07L1-A

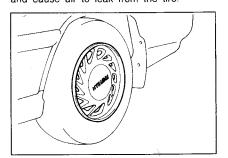
# 11. Re-install Wheel Cover (If installed)

To re-install the wheel cover, hold it in position and firmly tap it with the side or heel of your hand until it snaps into place.

#### WARNING

Wheel covers may have sharp edges. Handle them carefully to avoid possible injury or severe lacerations.

If you have a tire gauge, remove the valve cap and check the air pressure. If the pressure is lower than recommended, drive slowly to the nearest service station and inflate to the correct pressure. If it is too high, adjust it until it is correct. Always re-install the valve cap after checking or adjusting tire pressure. If the cap is not replaced, the valve core could be damaged by dirt or moisture and cause air to leak from the tire.

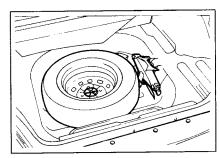


If you lose a valve cap buy another and install it as soon as possible.

D07M1-A

# AFTER CHANGING WHEELS

After you have changed wheels, always secure the flat tire in its place in the trunk and return the jack and tools to their proper storage locations.



D08A1-A

# IF YOUR CAR MUST BE TOWED CAUTION:

# Your car can be damaged if towed incorrectly!

If your car has to be towed, it should be done by your Hyundai dealer or a commercial tow truck service. This will help assure that your car is not damaged in towing. Also, professionals are generally aware of state and local laws governing towing. In any case, rather than risk damage to your car, it is suggested that you show this information to the tow truck operator. Be sure that a safety chain system is used and that all state and local laws are observed.

D09A1-A

# TOWING A CAR WITH MANUAL TRANSAXLE

- o If the car is being towed with the rear wheels on the ground, be sure the parking brake is released
- o If the car is being towed with the front wheels on the ground, be sure that the transaxle is in neutral. Also, be sure that the ignition key is in the "ACC" position. This is necessary to prevent damage to the steering lock mechanism, which is not designed to hold the front wheels straight while the car is being towed.
- If any of the loaded wheels or suspension components are damaged, a towing dolly must be used.

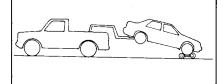
D10A1-A

# TOWING A CAR WITH AUTOMATIC TRANSAXLE

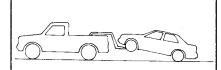
#### **CAUTION:**

A car with an automatic transaxie should never be towed from the rear with the front wheels on the ground. This can cause serious damage to the transaxie. If the car must be towed from the rear, a towing dolly must be used under the front wheels.

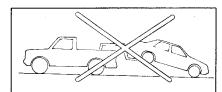
- If the car is being towed with the rear wheels on the ground, be sure the parking brake is released.
- o If the car is being towed with all four wheels on the ground, it can be towed only from the front. Be sure that the transaxle is in neutral. Do not tow at speeds greater than 30 mph (45 kph) and for more than 50 miles (80 km).



 OK FOR AUTOMATIC OR MANUAL TRANSMISSION EQUIPPED VEHICLE



o OK FOR AUTOMATIC OR MANUAL TRANSMISSION EQUIPPED VEHICLE WITH NO DAMAGE



- NOT OK FOR AUTOMATIC TRANSMIS-SION EQUIPPED VEHICLE
- O OK FOR MANUAL TRANSMISSION

Be sure steering is unlocked by placing the key in the "ACC" position. A driver must be in the towed vehicle to operate steering and brakes.

### NOTE:

Before towing, check the level of the transaxie fluid. If it is below the "HOT" mark on the dipstick, add fluid. If you cannot add fluid, a towing dolly must be used as described above.

D11A1-A

#### **EMERGENCY TOWING**

For emergency towing when no commercial tow vehicle is available, attach a tow cable, chain or strap to one of the tie-down hooks under the front of your car. Do not attempt to tow your vehicle in this manner on any unpaved surface. This could result in serious damage to your car.

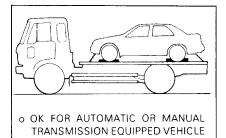
Nor should it be attempted if the wheels, drive train, axles, steering or brakes are damaged. Before towing, be sure the transaxle is in neutral and the key in "ACC" (with the engine off) or in the "ON" position (with the engine running). A driver must be in the towed car to steer it and operate the brakes.

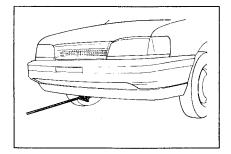
D12A1-A

#### IF YOU LOSE YOUR KEYS

If you lose your keys, many Hyundai dealers can make you a new key if you have your key number.

If you lock the keys inside your car and you cannot obtain a new key, many Hyundai dealers can use special tools to open the door for you.





E01A1-A

# 4. KEEPING THOSE GOOD LOOKS

Corrosion Prevention & Appearance Care —

# CORROSION PREVENTION AND APPEARANCE CARE

E02A1-A

# PROTECTING YOUR HYUNDAI FROM CORROSION

By using the most advanced design and construction practices to combat corrosion, Hyundai produces cars of the highest quality, however, this is only part of the job. To achieve the long-term corrosion resistance your Hyundai can deliver, the owner's cooperation and assistance is also required.

E02B1-A

#### Common Causes of Corrosion

The most common causes of corrosion on your car are:

- o Road salt, dirt and moisture that is allowed to accumulate underneath the car.
- Removal of paint or protective coatings by stones, gravel, abrasion or minor scrapes and dents which leave unprotected metal exposed to corrosion.

E02C1-A

### **High-Corrosion Areas**

If you live in an area where your car is regularly exposed to corrosive materials, corrosion protection is particularly important. Some of the common causes of accelerated corrosion are road salts, dust control chemicals, ocean air and industrial pollution.

E02D1-A

### **Moisture Breeds Corrosion**

Moisture creates the conditions in which corrosion is most likely to occur. For example, corrosion is accelerated by high humidity, particularly when temperatures are just above freezing. In such conditions, the corrosive material is kept in contact with the car surfaces by moisture that is slow to evaporate. Mud is a particular enemy of corrosion protection because it is slow to dry and holds moisture in contact with the vehicle. Even though the mud appears to be dry, it can still retain the moisture and promote corrosion.

High temperatures can also accelerate corrosion of parts that are not properly ventilated so the moisture can be dispersed. For all these reasons, it is particularly important to keep your car clean and free of mud or accumulations of other materials. This applies not only on the visible surfaces but particularly to the underside of the car.

E03A1-A

### TO HELP PREVENT CORROSION

You can help prevent corrosion from getting started by observing the following:

E03B1-/

# Keep Your Car Clean

The best way to prevent corrosion is to keep your car clean and free of corrosive materials. Attention to the underside of the car is particularly important.

- o If you live in a high-corrosion area -where road salts are used, near the ocean, areas with industrial pollution, acid rain, etc.-- You should take extra care to prevent corrosion. In winter, hose off the underside of your car at least once a month and be sure to clean the underside thoroughly when winter is over.
- o When cleaning underneath the car, give particular attention to the components under the fenders and other areas that are hidden from view. Do a thorough job; just dampening the accumulated mud rather than washing it away will accelerate corrosion rather than prevent it. Water under high pressure and steam are particularly effective in removing accumulated mud and corrosive materials.
- When cleaning lower door panels, rocker panels and frame members, be sure that drain holes are kept open so that moisture can escape and not be trapped inside to accelerate corrosion.

E03C1-A

# Keep Your Garage Dry

Don't park your car in a damp, poorly ventilated garage. This creates a favorable environment for corrosion. This is particularly true if you wash your car in the garage or drive it into the garage when it is still wet or covered with snow, ice or mud. Even a heated garage can contribute to corrosion unless it is well ventilated so moisture is dispersed.

E03D1-A

# Keep Paint and Trim in Good Condition

Scratches or chips in the finish should be covered with"touch-up" paint as soon as possible to reduce the possibility of corrosion. If bare metal is showing through, the attention of a qualified body and paint shop is recommended.

E03E1-A

# Don't Neglect the Interior

Moisture can collect under the floor mats and carpeting to cause corrosion. Check under the mats periodically to be sure the carpeting is dry. Use particular care if you carry fertilizers, cleaning materials or chemicals in the car.

These should be carried only in proper containers and any spills or leaks should be cleaned up, flushed with clear water and thoroughly dried.

F04A1-A

# WASHING AND WAXING Washing Your Hyundai

Never wash your car when the surface is hot from being in the sun. Always wash your car in the shade.

Wash your car frequently. Dirt is abrasive and can scratch the paint if it is not removed. Air pollution or acid rain may damage the paint and trim through chemical action if pollutants are allowed to remain in contact with the surface. If you live near the ocean or in an area where road salts or dust control chemicals are used, you should pay particular attention to the underside of the car. Start by rinsing the car to remove dust and loose dirt. In winter, or if you have driven through mud or muddy water, be sure to thoroughly clean the underside as well. Use a hard direct stream of water to remove accumulations of mud or corrosive materials. Use a good quality car-washing solution and follow the manufacturer's directions on the package. These are available at your Hyundai dealer or auto parts outlet. Don't use strong household detergents, gasoline, strong solvents or abrasive cleaning powders as these may damage the finish.

Use a clean sponge or cloth, rinse it frequently and don't damage the finish by rubbing too hard. For stubborn spots, dampen them frequently and remove them a little at a time.

To clean whitewall tires, use a stiff brush or soap-impregnated steel-wool scouring pad.

To clean plastic wheel covers, use a clean sponge or soft cloth and water.

To clean cast aluminum alloy wheels, use a mild soap or neutral detergent. Do not use abrasive cleaners. Protect the bare-metal surfaces by cleaning, polishing and waxing. Because aluminum is subject to corrosion, be sure to give aluminum alloy wheels special attention in winter. If you drive on salted roads, clean the wheels thoroughly afterwards.

After washing, be sure to rinse thoroughly. If soapy water dries on the finish, streaking will result.

When the weather is warm and the humidity low, you may find it necessary to rinse each section immediately after washing to avoid streaking.

After rinsing, dry the car using a damp chamois or soft, absorbent cloth. The reason for drying the car is to remove water from the car so it will dry without water spots. Don't rub, this can damage the finish.

If you find any nicks or scratches in the paint, use touch-up paint to cover them to prevent corrosion

# CORROSION PREVENTION AND APPEARANCE CARE

E04B1-A

# **Spot Cleaning**

Don't use gasoline, strong solvents or corrosive cleaning agents. These can damage the finish of the car. To remove road tar, use turpentine on a clean, soft cloth. Be gentle.

To remove dead insects or tree sap, use warm water and mild soap or car-washing solution. Soak the spot and rub gently. If the paint has lost its luster, use a commercial car-cleaning polish.

E04C1-A

# Polishing and Waxing

Always wash and dry the car before polishing or waxing or using a combination cleaner and wax. Use a good quality commercial product and follow the manufacturer's directions on the container. Polish and wax the bright trim pieces as well as the paint.

E04D1-A

# When to Wax Again

You should polish and wax the car again when water no longer beads on a clean surface but spreads out over a larger area.

E04E1-A

# **Maintaining Bumpers**

Special precautions must be observed to preserve the appearance of the bumpers on your Hyundai. They are:

- Be careful not to spill battery electrolyte or hydraulic brake fluid on the bumpers. If you do, wash it off immediately with clear water.
- o Be gentle when cleaning the bumper surfaces. They are made of soft plastic and the surface can be damaged if mistreated. Do not use abrasive cleaners. Use warm water and mild soap or car-washing solution.
- o Do not expose the bumpers to high temperatures. For example, if you have your car repainted, do not leave the bumpers on the car if the car is going to be placed in a high-temperature paint booth.

E05A1-A

# CLEANING THE INTERIOR To Clean the Vinyl Upholstery

To clean the vinyl upholstery, first remove loose dirt and dust with a vacuum cleaner. Then apply a solution of mild soap or detergent and water using a clean sponge or soft cloth. Allow this to stay on the surface to loosen the dirt, then wipe with a clean damp sponge or cloth. If all the dirt stains are not removed, repeat this procedure until the upholstery is clean. Do not use gasoline, solvent, paint thinner or other strong cleaners.

E05B1-A

# Cleaning the Carpets

Use a foam-type carpet cleaner. Cleaners of this type are available in aerosol cans in liquid form or powder. Read the instructions and follow them exactly. Using a vacuum cleaner with the appropriate attachment, remove as much dirt from the carpets as possible. Apply the foam following the manufacturer's directions, then rub in overlapping circles. Do not add water. These cleaners work best when the carpet is kept as dry as possible.

E05C1-A

# Cleaning the Seat Belts

To clean the seat belts, use a cloth or sponge with mild soap or detergent and warm water. Do not use strong detergents, dye, bleach or abrasive materials on the seat belts as this may weaken the fabric.

While cleaning the belts, inspect them for excessive wear, cuts, fraying or other signs of damage and replace them if necessary.

E05D1-A

# Cleaning the Windows

You may use any household window cleaner on the windows. However, when cleaning the inside of the rear window be careful not to damage the rear window defroster wiring.

E05E1-A

# **Any Questions?**

If you have any questions about the care of your car, consult your Hyundai dealer.

— 5. THE KEY TO TROUBLE-FREE — OPERATION
— Vehicle Maintenance Requirements —

F02A1-A

# MAINTENANCE AND SERVICE REQUIREMENTS

. To assure that you receive the greatest number of miles of satisfying operation from your Hyundai Excel, certain maintenance procedures must be performed. Although careful design and engineering have reduced these to a minimum, those that are required are of the utmost importance.

It is your responsibility to have these maintenance procedures performed to comply with the terms of the warranties covering your new Hyundai. The Owner's Handbook supplied with your new vehicle provides further information about these warranties.

F02B1-A

### **Maintenance Requirements**

The maintenance required for your Hyundai can be divided into three main areas:

- o Specified scheduled procedures
- o General everyday checks
- o Do-it-yourself maintenance

F02C1-A

# **Specified Scheduled Procedures**

These are the procedures such as inspections, adjustments and replacements that are listed in the maintenance charts starting on page 5-3. These procedures must be performed at the intervals shown in the

maintenance schedule to assure that your warranty remains in effect. Although it is strongly recommended that they be performed by the factory-trained technicians at your Hyundai dealer, these procedures may be performed at any qualified service facility.

It is suggested that genuine Hyundai service parts be used for any required repairs or replacements. Other parts of equivalent quality may be used without affecting your warranty coverage but you should always be sure these are equivalent to the quality of the original Hyundai parts. Your Owner's Handbook provides further information about your warranty coverage.

F02D1-A

# **General Everyday Checks**

These are the everyday checks you should perform each time you drive your Hyundai or when you fill the fuel tank. A list of these items will be found on page 6-3.

F02E1-A

#### **Do-It-Yourself Maintenance**

If you are mechanically inclined, own a few tools that are required and want to take the time to do so, you can inspect and service a number of items. For more information about doing it yourself, see the Section 6.

F02F1-A

# A Few Tips

- o Whenever you have your Hyundai serviced, keep copies of the service records in your glovebox. This will help assure that you can document that the required procedures have been performed to keep your warranties in effect. This is especially important when service is not performed at an authorized Hyundai dealer.
- o If you choose to do your own maintenance and repairs, you may find it helpful to have an official Hyundai Shop Manual. A copy of this publication may be purchased at your Hyundai dealer's parts department.

F03A1-A

# SCHEDULED MAINTENANCE REQUIREMENTS

Inspection should be performed any time a malfunction is experienced or suspected.

Receipts for all emission control system services should be retained to demonstrate compliance with conditions of the emissions system warranty.

For severe usage maintenance requirements, see page 5-5 of this section.

F04A1-A

# SCHEDULED MAINTENANCE

The following maintenance services must be performed to assure good emission control and performance. Keep receipts for all vehicle emission services to protect your emission warranty.

Where both mileage and time are shown, the frequency of service is determined by whichever occurs first.

R : REPLACE

I: INSPECT AND, AFTER INSPECTION, CLEAN, ADJUST, REPAIR OR REPLACE IF NECESSARY

	T. INGLEGI AND, ALTER INGL		· .				·			
		MILES X 1000	7.5	15	22.5	30	37.5	45	52.5	60
NO.	DESCRIPTION	KILOMETERS X 1000	12	24	36	48	60	72	84	96
		MONTHS	5	10	20	30	40	50	60	70
	EMISSION CONTROL ITEMS									
1	ENGINE OIL		R	R	R	R	R	R	R	R
2	ENGINE OIL FILTER		R	R	R	R	R	R	R	R
3	VALVE CLEARANCE			ı		1		1		- 1
4	FUEL FILTER								R	
5	FUEL LINES AND CONNECTIONS			ı				1		1
6	VACUUM, CRANKCASE VENTILATION HOSES								R	
7	IGNITION TIMING								ļ.	
8	FUEL HOSE, VAPOR HOSE & FUEL FILLER CAP								R	
9	AIR CLEANER FILTER					R				R
10	PCV VALVE								ı	
11	EVAPORATIVE EMISSION CONTROL SYSTEM								-	
12	SPARK PLUGS					R				R
13	IGNITION WIRING									ı
14	EGR SYSTEM								1	
15	CANISTER			-					R	
16	OXYGEN SENSOR								R	
17	THROTTLE POSITIONER									

F04C1-A

R : REPLACE I : INSPECT AND, AFTER INSPECTION, CLEAN, ADJUST, REPAIR OR REPLACE IF NECESSARY

	· · · · · · · · · · · · · · · · · · ·	MILES X 1000	7.5	15	22.5	30	37.5	45	52.5	60
NO.	DESCRIPTION	KILOMETERS X 1000	12	24	36	48	60	72	84	96
		MONTHS	5	10	20	30	40	50	60	70
	GENERAL ITEMS									
1	DRIVE BELT (FOR POWER STEERING PUMP AND ALTERNATOR)					-			R	
2	COOLING SYSTEM (HOSES, CONNECTIONS,	ETC.)		l_		1.				1
3	ENGINE COOLANT			1		R		1		R
4	TIMING BELT					l l				R
5	MANUAL TRANSAXLE OIL					- 1				1
6	AUTO TRANSAXLE OIL			1		R				R
7	BRAKE HOSES, LINES					1		1		1
8	BRAKE FLUID					R		1		R
9	REAR BRAKE DRUMS/LININGS			I		l l		1		1
10	BRAKE PADS, CALIPERS, ROTORS					1		1		-1
11	PARKING BRAKE			1		1		- 1		l .
12	EXHAUST PIPE CONNECTIONS, MUFFLER & SUSPENSION BOLTS			I		- 1		- 1		ı
13	STEERING GEAR RACK, LINKAGE & BOOTS			- 1		1	<u> </u>	- 1		ı
14	WHEEL BEARING GREASE					- 1				- 1
15	DRIVESHAFTS & BOOTS			1		1		1		1
16	POWER STEERING PUMP BELT			1		ı		1		1
17	POWER STEERING FLUID			_		1		1		ı
18	POWER STEERING HOSES			<u> </u>		1		1	ļ .	
19	LOWER BALL JOINT GREASE					1				
20	WHEEL NUT TORQUE			1		I		1	l	1

F05A1-A

#### MAINTENANCE UNDER SEVERE USAGE CONDITIONS

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

I : Inspect, correct or replace if necessary. R : Replace

inspect, correct or replace if fecessary.	n . neplace		T	
MAINTENANCE ITEM	MAINTENANCE OPERATION	MAINTENANCE INTERVALS	DRIVING CONDITION	
ENGINE OIL	R	EVERY 3,000 MILES (4,800 KM) OR 3 MONTHS	A, B, C, F	
ENGINE OIL FILTER	R	EVERY 3,000 MILES (4,800 KM) OR 3 MONTHS	A, B, C, F	
AIR CLEANER FILTER	R	MORE FREQUENTLY	C, E	
CRANKCASE EMISSION CONTROL SYSTEM (PCV VALVE)	-	MORE FREQUENTLY	С	
SPARK PLUGS	R	EVERY 24,000 MILES (40,000 KM) OR 18 MONTHS	В	
BRAKE PADS, CALIPERS, ROTORS	, <b>1</b>	MORE FREQUENTLY	C, D, G	
REAR BRAKE DRUMS/LININGS	ı	MORE FREQUENTLY	C, D, G	
STEERING GEAR RACK, LINKAGE & BOOTS	·	EVERY 7,500 MILES (12,000 KM) OR 6 MONTHS	C, D, E, F	
DRIVESHAFTS & BOOTS	l .	EVERY 7,500 MILES (12,000 KM) OR 6 MONTHS	C, E, F	

#### SEVERE DRIVING CONDITIONS

- A Repeated short distance driving
- C Driving in dusty conditions
- E Driving in sandy areas
- G Driving in mountainous areas.
- B Extensive idling
- D Driving in areas using salt or other corrosive materials or in very cold weather
- F More than 50% driving in heavy city traffic during hot above 90°F (32°C)

F06A1-A

# EXPLANATION OF SCHEDULED MAINTENANCE ITEMS

F06B1-A

### o Engine oil and filter

The engine oil and filter should be changed at those intervals specified in the maintenance schedule. If car is being driven in severe conditions, more frequent oil and filter changes are required.

F06C1-A

#### o Drive belts

Inspect all drive belts for evidence of cuts, cracks, excessive, wear or oiliness, and replace if necessary. Drive belts should be checked periodically for proper tension and adjusted as necessary.

F06D1-A

#### o Valve clearances

An incorrect valve clearance will not only result in unsteady engine operation, but will also cause excessive noise and reduced engine output. Inspect valve clearance and adjust as required while the engine is hot. Valve-to-rocker arm clearance lintake valves .... 0.15mm (0.006 in) Exhaust valves .... 0.25mm (0.010 in)

F06E1-A

### o Ignition timing

For basic ignition timing, refer to the "Vehicle

Emission Control Information" label located under the hood.

F06G1-A

#### o Fuel filter and lines

A clogged filter can limit the speed at which the vehicle can be driven, and cause hard starting. If an excessive amount of foreign matter accumulates in the fuel tank, the filter may require replacement more frequently. After installing a new filter, run the engine for several minutes, and check for leaks at the connections.

F06H1-A

# o Vacuum, and crankcase ventilation hoses

Inspect the surface of hoses for evidence of heat and mechanical damage. Hard and brittle rubber, cracking, checking, tears, cuts, abrasions, and excessive swelling indicate deterioration.

Particular attention should be paid to examining those hose surfaces nearest to high heat sources, such as the exhaust manifold.

Inspect the hose routing to assure that the hoses do not come in contact with any heat source, sharp edges or moving component which might cause heat damage or mechanical wear. Inspect all hose connections, such as clamps and couplings, to make sure they are secure, and that no leaks are present.

Hoses should be replaced immediately if there is any evidence of deterioration or damage.

F06I1-A

# o Fuel hose, vapor hose and fuel filler cap

Make sure the new fuel hose, vapor hose and fuel filler cap are correctly replaced.

F06J1-A

#### o Air cleaner filter

A genuine Hyundai part is recommended for replacement of the air cleaner filter.

F06K1-A

### o PCV valve

The PCV valve must be kept clean to maintain good engine performance.

F06I 1-A

# o Evaporative emission control system

Check the evaporative emission control system for leaks, clogging, or restricted lines. If the fuel-vapor vent line is clogged or damaged, the fuel-vapor mixture will escape into the atmosphere and cause ineffective emission control.

F06M1-A

# o Spark plugs

Make sure to install new spark plugs of the correct heat range.

FORN1\_A

# o Ignition wiring

The ignition wiring should be kept clean and properly connected. Visually inspect for cracks, damage or burning.

Replace any damaged parts

F07A1-A

# o Oxygen sensor

The oxygen sensor is a device which controls the fuel mixture. If the oxygen sensor is damaged, exhaust gas emission level increases and driveability deteriorates. For detailed service procedures, refer to the Shop Manual.

F0781-A

# o EGR system

The EGR system reduces the formation of oxides of nitrogen (NOx) by recirculating part of the engine exhaust gases through the EGR system, and back to the combustion chamber. For detailed service procedures, refer to the Shop Manual.

F07C1-A

#### o Canister

Replace the canister, as recommended, with a new one. The canister filter may become clogged, causing the purge air volume to decrease, thus reducing canister capacity. FO7D1-A

#### o Throttle positioner

Check the throttle position adjustment of the throttle position sensor. For detailed service procedures, refer to the Shop Manual.

F07F1-A

# o Cooling system

Check the cooling system parts, such as radiator, coolant reservoir, hoses and connections for leakage and damage. Replace any damaged parts.

F07F1-A

# o Engine coolant

The coolant should be changed at those intervals specified in the Maintenance Requirements chart.

F07G1-A

# o Timing belt

Inspect all parts related with the timing belt for damage and deformation. Replace any damaged parts.

F07H1-A

#### o Manuai transaxie oii

Change manual transaxle oil according to the maintenance schedule

#### NOTE:

If the oil level is low, check for possible leaks before adding oil. Do not overfill.

F0712-A

# o Automatic transaxle fluid

Use only DIAMOND ATF SP, APOLLOIL ATF SP, MOPAR ATF PLUS TYPE 7176 OR GENUINE HYUNDAI AUTOMATIC TRANS-MISSION FLUID or other equivalent transmission fluid when adding or changing fluid.

F07.81-A

### o Brake hoses and lines

Visually check for proper installation, chafing, cracks, deterioration, and any evidence of leaking. Replace any deteriorated or damaged parts immediately.

F07K1-A

#### o Brake fluid

Check brake fluid level in the brake fluid reservoir. The level should be between "MIN" and "MAX" marks on the side of the reservoir. Use only hydraulic brake fluid conforming to DOT 3.

F07I 1-A

# o Rear brake drums and linings

Check for scoring, burning, leaking fluid, broken parts, and excessive wear.

F07M1-A

### o Brake pads, calipers and rotors

Check the pads for excessive wear, discs for run out and wear, and calipers for leaking fluid

FO7N1-A

# o Parking brake

Inspect the parking brake system such as parking brake lever, cables, and so on. For detailed service procedures, refer to the Shop Manual

F07Q1-A

# o Exhaust pipe connections, muffler and suspension bolts

Check the exhaust pipe, muffler, and suspension connections for looseness or damage.

FO7P1-A

# o Steering gear box, linkage and boots

With the car stopped, check for excessive freeplay in the steering wheel. Check the linkage for bends or damage. Check the dust boots and ball joints for deterioration, cracks, or damage. Replace any damaged parts.

F07Q1-A

# o Rear wheel bearing grease

Check rear wheel bearing grease whenever the brake drums are removed to inspect the rear brake system. E07D1-A

#### o Driveshaft and boots

Check the drive shaft boots and clamps for cracks, deterioration, or damage.

Replace any damaged parts and, if necessary repack the grease.

F07S1.A

# o Power steering pump belt

The power steering pump belt should be checked periodically for proper tension and condition and should be adjusted and replaced as necessary.

F07T1-A

# o Power steering fluid

Inspect the power steering fluid level.
Use only DEXRON II automatic transaxle fluid when adding fluid.

F07U1-A

### o Power steering hoses

Inspect the surface of hoses for evidence of heat or mechanical damage.

F07V1-A

### o Lower ball joint grease

Check the lower ball joint grease. If necessary, repack the grease. A qualified technician should make this operation.

F07W1-A

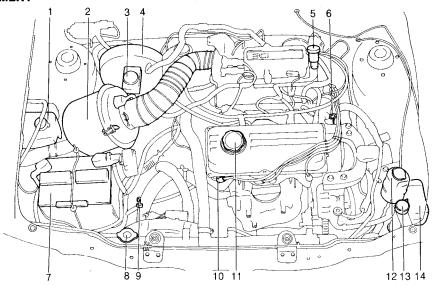
### o Wheel nut torque

Inspect the wheel nut torque according to the maintenance schedule.

Wheel nut tightening torque: 65-80 lb.ft (900-1,100 kg.cm)

G02A1-A

# **ENGINE COMPARTMENT**



- 1. Coolant reservoir cap
- 2. Air cleaner
- 3. Brake fluid reservoir
- 4. Brake booster
- 5. Clutch fluid reservoir

- 6. Engine oil level dipstick
- 7. Battery
- 8. Radiator cap
- 9. Automatic transaxle fluid level dipstick (Automatic T/A only)
- 10. Spark plug11. Engine oil filler cap
- 12. Power steering fluid reservoir
- 13. Windshield washer fluid reservoir cap
- 14. Relay box

G02B1-A

# GENERAL EVERYDAY CHECKS Engine Compartment

The following should be checked regularly:

- o Engine oil level and condition
- o Transaxle fluid level and condition
- o Brake reservoir fluid level
- o Clutch reservoir fluid level
- o Engine coolant level
- o Windshield washer fluid level
- Accessory drive belt condition
- o Coolant hose condition
- o Air filter element condition o Exhaust system condition
- o Fluid leaks (on or below components)
- o Power steering fluid level and condition
- Tire pressure and condition (including spare)
- o Battery indicator condition

G02C1-A

#### **Vehicle Exterior**

The following should be checked monthly:

- o Overall appearance and condition
- o Wheel condition and wheel nut tightness
- o Exhaust system condition
- o Light condition and operation
- o Windshield glass condition
- o Wiper blade condition
- o Paint condition and corrosion
- o Fluid leaks
- o Door and hood lock condition

G02D1-A

#### Vehicle Interior

The following should be checked each time when the vehicle is driven:

- o Light operation
- o Windshield wiper operation
- o Horn operation
- Defroster, heater operation (and air conditioning, if equipped)
- o Steering operation and condition
- o Mirror condition and operation
- o Turn signal operation
- o Accelerator pedal operation
- o Brake operation, including parking brake
- Manual transaxle operation, including clutch operation
- o Automatic transaxle operation, including "Park" mechanism operation
- o Seat control condition and operation
- o Seat belt condition and operation
- o Sun visor operation

If you notice anything that does not operate correctly or appear to be functioning correctly, inspect it carefully and seek assistance from your Hyundai dealer if service is needed.

G03A1-A

#### CHECKING THE ENGINE OIL

Engine oil is essential to the performance and service of the engine. It is suggested that you check the oil level at least once a week in normal use and more often if you are on a trip or driving in severe conditions.

G03B1-A

#### Recommended Oil

SF, SF/CC or SG (API) multi-grade and fuel efficient oil is recommended.

#### NOTE:

SAE 5W-20 is not recommended for sustained high speed vehicle operation.

G03C1-A

### To Check the Oil Level

Before checking the oil, warm up the engine to normal operating temperature and be sure it is parked on level ground. Turn the engine off.

Wait a minute, then remove the dipstick, wipe it off, fully reinsert the dipstick and withdraw it again. Then note the highest level the oil has reached on the dipstick. It should be between the upper ("MAX") and lower ("MIN") range.

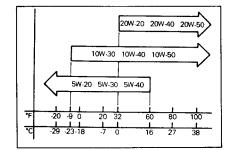
G03D1-A

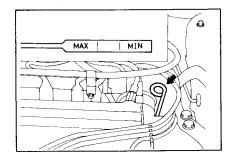
# **Adding Oil**

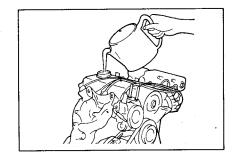
If the oil level is close to or below the "MIN" mark, add oil until it reaches the "MAX" mark. To add oil:

- Remove the oil filler cap by turning it counterclockwise.
- Add oil, then check the level again. Do not overfill.
- 3. Replace the cap by turning it clockwise.

The distance between the "MAX" and "MIN" marks is equal to about 1 quart of oil.







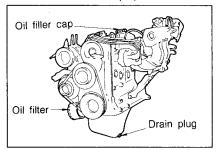
G04A1-A

# CHANGING THE OIL AND FILTER

The engine oil and filter should be changed at those intervals specified in the maintenance schedule in Section 5. If the car is being driven in severe conditions, more frequent oil and filter changes are required.

The procedure for changing the oil and filter is as follows:

- Park the car on level ground and set the parking brake. Start the engine and let it warm up until the needle on the temperature gauge moves above the lowest mark. Turn the engine off and place the gear selector lever in "P" (automatic) or reverse gear (manual transaxle).
- Open the hood and remove the engine oil filler cap.
- Slide underneath the car and loosen the drain plug by turning it counterclockwise with a wrench of the proper size. Be sure



that a drain pan is in position to catch the oil as it drains out, then remove the drain plug.

### WARNING

Be very careful when draining the engine oil as it may be hot enough to burn you!

- When the oil has stopped draining, replace the drain plug using a new washer and retighten by turning it clockwise.
- 5. Remove the oil filter. You should be able to unscrew the filter with your hands. (If your hands are slippery, try using a cloth between your hands and the filter to give yourself a better grip.) A certain amount of oil will come out when you remove the filter so be sure to have your drain pan in place underneath it.
- Install a new oil filter in accordance with the instructions on the carton or on the filter itself. Do not over-tighten. Be sure that the mounting surface on the engine is clean and that the old gasket is removed completely. Lubricate the new gasket on the filter before installation with clean engine oil.
- Refill the crankcase with the recommended engine oil. Refer to the specification in chapter 9 for engine oil capacity.
- 8. Start the engine and check to be sure no oil is leaking from the drain plug or oil filter.
- Shut off the engine and recheck the oil level.

### NOTE:

Always dispose of used engine oil in an environmentally acceptable manner. It is suggested that it be placed in a sealed container and taken to a service station for reclamation. Do not pour the oil on the ground or put it in with household trash.

#### WARNING

Used motor oil may cause irritation or cancer of the skin if left in contact with the skin for prolonged periods of time. Although this will probably not be a concern unless you handle used oil on a regular basis, you should wash your hands with soap and warm water as soon as possible after handling used oil.

G05A1-A

# CHECKING AND CHANGING THE ENGINE COOLANT

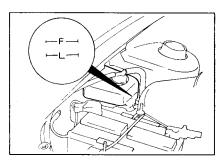
#### WARNING

Do not remove the radiator cap when the engine is hot. When the engine is hot, the coolant is under pressure and may erupt through the opening if the cap is removed. You could be seriously burned if you do not observe this precaution.

G05B1-A

#### **Recommended Coolant**

Use a high quality ethylene-glycol coolant in a 50/50 mix with water. The coolant should be compatible with aluminum engine parts. No additional corrosion inhibitors or additives should be used. The cooling system must be maintained with the correct concentration and type of coolant to prevent freezing and corrosion.



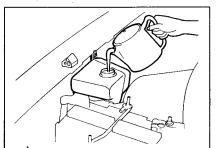
NEVER allow the concentration of antifreeze to exceed the 60% level or go below the 35% level or damage to the coolant system may result. For proper concentration when adding or replacing the coolant, refer to the following table.

Ambient	Coolant concentration				
temperature C (F)	Anti-freeze solution	Water			
-15 (5)	35%	65%			
-25 (-13)	40%	60%			
-31 (-35)	50%	50%			
-45 (-49)	60%	40%			

G05C1-A

### To Check the Coolant Level

The coolant level can be seen on the side of the plastic coolant reservoir. The level of



the coolant should be between the "LOW" and "FULL" lines on the reservoir. If the level is below the "LOW" mark, add coolant to bring it up between "LOW" and "FULL". If the level is low, inspect for coolant leaks and recheck the fluid level frequently. If the level drops again, visit your Hyundai dealer for an inspection and diagnosis of the reason.

G05D1-A

# To Change the Coolant

The coolant should be changed at those intervals specified in the vehicle maintenance schedule in Section 5.

#### NOTE:

Coolant can damage the finish of your car. If you spill coolant on the car, wash it off thoroughly with clear water.

- Park the car on level ground, set the parking brake and remove the radiator cap when cool.
- Be sure your drain receptacle is in place. Open the drain cock on the radiator. Allow all the coolant to drain from the cooling system, then securely close the drain cock.
- 3. Check Section 9 for the capacity of the cooling system in your car. Then, following the manufacturer's directions on the coolant container, add the appropriate quantity of coolant to the radiator. Now fill the radiator with clean water. Continue to add water in small quantities until the fluid level stays up in the radiator neck.

- Start the engine, top off the radiator with water and then add coolant to the reservoir until the level is between "LOW" and "FULL".
- Replace the radiator and reservoir caps and check to be sure the drain cocks are fully closed and not leaking.

#### WARNINGS

The radiator fan is controlled by engine coolant temperature and may sometimes operate even after the ignition key has been turned off. Use extreme caution when working near the blades of the cooling fan so that you are not injured by a rotating fan blade. As the coolant temperature decreases the fan will automatically shut off. This is a normal condition.

G06A1-A

#### REPLACING THE SPARK PLUGS

The spark plugs should be changed at the intervals specified in the vehicle maintenance schedule in Section 5, or whenever engine performance indicates they should be changed. Symptoms that suggest poor spark plug performance include engine misfiring under load, loss of fuel economy, poor acceleration, etc. When spark plugs are replaced, always use spark plugs recommended by Hyundai. The use of other spark plugs can result in loss of performance, radio interference or engine damage.

### **Recommended Spark Plugs:**

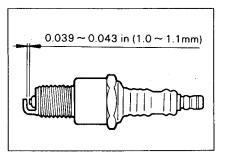
CHAMPION: RN9YC4 NGK: BUR6EA-11 BPR6ES-11 G06B1-A

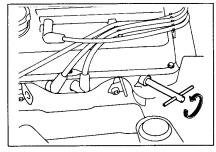
# Changing the Spark Plugs

You will find it easier to change spark plugs if the engine is cold.

Always change one spark plug at a time. This helps avoid getting the wires mixed up.

- Using a clean cloth, remove any dirt that has accumulated around the base of the spark plug so it cannot fall into the cylinder when the spark plug is removed.
- To remove the spark plug cable, pull straight up on the insulated connector, not the cable. Pulling on the cable may damage the carbon core conductor.





### WARNING

It is recommended that the engine be cool or cold when changing the spark plugs. If the engine is hot, you could burn yourself on the insulated connector, the spark plug or the engine itself.

- When preparing to remove the old spark plug, guide the socket down over the spark plug, being careful not to damage the ceramic insulator.
- To remove the spark plug, turn the wrench handle in a counterclockwise direction.
- Start the new spark plug in by hand, then tighten with the wrench. Guide the socket down over the spark plug, being careful not to damage the ceramic insulator.

#### NOTE:

Spark plugs should be tightened firmly. Over-tightening can damage the threads in the aluminum cylinder head. Also, leaving them too loose can cause the spark plug to get very hot and possibly result in damage to the engine.

Replace the cable by pushing the insulated connector directly down onto the electrode. Check to be sure it has snapped into place and can't fall off.

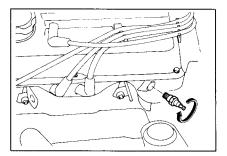
#### G07A1-A

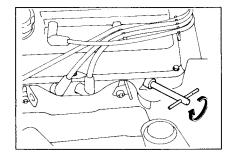
# CHANGING THE AIR FILTER

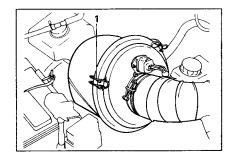
To change the filter, unsnap the clips (1) around the cover. When this is done, the cover can be lifted off, the old filter removed and the new filter put in its place. Genuine Hyundai replacement parts are recommended

### **CAUTION:**

Operating your vehicle without a proper air filter in place can result in excessive engine wear.







G08A1-A

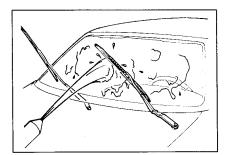
#### WINDSHIELD WIPER BLADES

The wiper blades should be carefully inspected from time to time and cleaned to remove accumulations of road film or other debris. To clean the wiper blades and arms, use a clean sponge or cloth with a mild soap or detergent and water.

If the wipers continue to streak or smear the glass, replace them with genuine Hyundai replacement parts or their equivalent.

#### NOTE:

Do not operate the wipers on dry glass. This can result in more rapid wear of the wiper blades and may scratch the glass.



G09A1-A

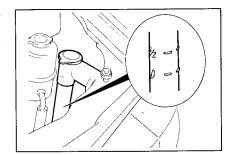
### FILLING THE WASHER RESERVOIR

The washer fluid reservoir supplies fluid to the windshield washer system.

A good quality washer fluid should be used to fill the washer reservoir. The fluid level should be checked more frequently during bad weather or whenever the washer system is in more frequent use.

The capacity of the washer reservoir is 3.1 U.S. guarts (3.0 Liters).

- Radiator anti-freeze (engine coolant) should not be used in the washer system because it will damage the car's finish.
- The washer button should not be pressed if the washer reservoir is empty.
   This can damage the washer fluid pump.



G10A1-A

# CHECKING THE TRANSAXLE OIL (MANUAL)

Transaxle lubricant in the manual transaxle should be changed at those intervals specified in the vehicle maintenance schedule in Section 5.

#### Recommended Oil

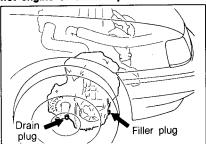
Use only API GL-4 SAE 75W-85W or HP GEAR OIL SAE 75W/85W in the manual transaxle.

# Manual Transaxle Oil Capacity

The oil capacity of the manual transaxle is 1.9 U.S. quarts (1.8 liters).

#### WARNING

It is always better to check the transaxle oil level when the engine is cool or cold. If the engine is hot, you should exercise great caution to avoid burning yourself on hot engine or exhaust parts.



G10B1-A

# To check the Transaxle Fluid Level

Park the car on level ground with the engine off.

- Using a wrench of the correct size, loosen the oil filler bolt turning is counterclockwise and remove is with your fingers.
- Use your finger to feel inside the hole. The oil level should be at its bottom edge. If it is not, check for leaks before adding oil. To refill the transaxle or bring the oil level up, add oil slowly until it reaches the proper level. Do not overfill.
- Replace the bolt, screw it in with your fingers and then tighten securely with the wrench.

G11A1-A

# CHECKING THE TRANSAXLE FLUID (AUTOMATIC)

Transaxle fluid in the automatic transaxle should be changed at those intervals specified in the vehicle maintenance schedule in Section 5.

G11B2-A

#### Recommended Fluid

Your Hyundai automatic transaxle is specially designed to operate with DIAMOND ATF SP, MOPAR ATF PLUS TYPE 7176, APOLLOIL ATF SP, GENUINE HYUNDAI AUTOMATIC TRANSMISSION FLUID or other equivalent transmission fluid.

G11C1-A

# Transaxle Fluid Capacity

The fluid capacity of the automatic transaxle is 6.44 U.S. quarts (6.1 liters).

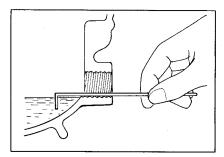
#### CAUTION:

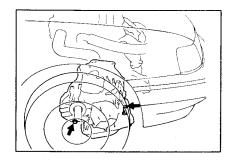
The transaxle fluid level should be checked when the engine is at normal operating temperature. This means that the engine, radiator, exhaust system etc., are very hot so you should exercise great care not to burn yourself during this procedure.

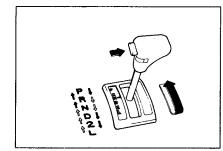
G11D1-A

# To Check the Transaxie Fluid Level

Park the car on level ground with the parking brake engaged. When the transaxle fluid level is checked, the transaxle fluid should be at normal operating temperature and the engine idling.







While the engine is idling, apply the brakes and move the gear selector lever from "P" to each of its other positions -- "R", "N", "D", "2", "L" -- and then return to "N". With the engine still idling:

- Open the hood, being careful to keep hands and clothing clear of any moving parts.
- Remove the transaxle dipstick, wipe it clean, reinsert the dipstick as far as it will go, then remove it again. Now check the fluid level on the dipstick. It should be between the upper ("HOT") and lower ("COLD") range.

 If the transaxle fluid level is low, use a funnel to add transaxle fluid through the dipstick tube until it is between the upper ("HOT") and lower ("COLD") range. Do not overfill.

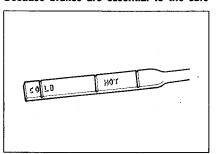
#### WARNING

The radiator fan is controlled by engine coolant temperature and may sometimes operate even after the ignition key has been turned off. Use extreme caution when working near the blades of the cooling fan, so that you are not injured by a rotating fan blade. As the coolant temperature decreases the fan will automatically shut off. This is a normal condition.

G12A1-A

# CHECKING THE BRAKES CAUTION:

Because brakes are essential to the safe



operation of the car, it is suggested that they be checked and inspected by your Hyundai dealer. The brakes should be checked and inspected for wear at those intervals specified in the vehicle maintenance schedule in Section 5.

G12B1-A

# Checking the Brake Fluid Level

#### WARNING

Use caution when handling brake fluid. It can damage your vision if it gets into your eyes. It will also damage your vehicle's paint if spilled on it and not removed immediately.

G12C1-A

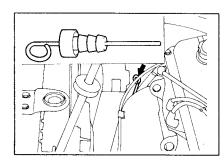
#### Recommended Brake Fluid

Use only hydraulic brake fluid conforming to DOT 3 specifications in your braking system. Follow the instructions printed on the container

G12D1-A

#### To Check the Fluid Level

The fluid level in the brake fluid reservoir should be checked periodically. The level should be between the "MIN" and "MAX" marks on the side of the reservoir. If the level is at or below the "MIN" mark, carefully add fluid to bring it up to "MAX". Do not overfill.



G12E1-A

### Adding Brake Fluid

#### WARNINGS

Handle brake fluid carefully. It can damage your vision if it gets into your eyes. Use only DOT 3 specification fluid from a sealed container. Do not allow the fluid can or reservoir to remain open any longer than required. This will avoid entry of dirt and moisture which can damage the brake system and cause improper operation.

To add brake fluid, first wipe away any dirt then unscrew the fluid reservoir cap. Slowly pour the recommended fluid into the reservoir. Do not over fill. Carefully replace the cap on the reservoir and tighten. G13A1-A

# CHECKING THE CLUTCH FLUID To Check the Clutch Fluid

The clutch fluid level in the master cylinder should be checked when performing other under hood services. The system should be checked for leakage at the same time. Check to make certain that the clutch fluid level is always between the "MAX" and "MIN" level markings on the fluid reservoir. Fill as required. Fluid loss indicates a leak in the clutch system which should be inspected and repaired immediately.

G13B1-A

# To Replace the Fluid

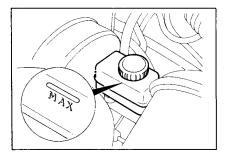
Recommended brake fluid conforming to DOT 3 should be used. The reservoir cap must be fully tightened to avoid contamination from foreign matter or moisture.

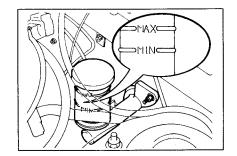
#### NOTE:

Do not allow petroleum base fluid to contaminate the brake fluid. Seal damage will result.

#### WARNING

Use caution when handling brake fluid. It can damage your vision if you get it in your eyes. It will also damage your vehicle's paint if spilled on it and not removed immediately.





G14A1-A

# AIR CONDITIONER CARE Keeping the Condenser Clean

The air conditioner condenser (and engine radiator) should be checked periodically for accumulation of dirt, dead insects, leaves, etc. These can interfere with maximum cooling efficiency. When removing such accumulations, brush or hose them away carefully to avoid bending the cooling fins.

G14B1-A

# **Checking the Compressor Drive Belt**

When the air conditioner is being used regularly, the compressor drive belt tension should be checked at least once a month.

To check the drive belt tension, press down on the belt halfway between the engine crankshaft and compressor pulleys. Pressing with your finger, you should not be able to deflect this belt anymore than one-half inch. If you have the instruments to check it, with a force of 22 lb. (98N), the deflection should be 0.35-0.43 inches (9-11 mm). If the belt is too loose, have it adjusted by your Hyundai dealer.

Power steering oil pump pulley
oil pump pulley

Tension pulley
22lb

Alternator
pulley

Air conditioner
compressor pulley

G14C1-A

# Checking the Refrigerant

- Start the engine and let it run at fast idle for several minutes with the air conditioner set at one of its colder settings.
- Open the hood and check two hoses by touching with your fingers. One line is the evaporator inlet, the other is the outlet. If there is the temperature difference between two hoses, the refrigerent is low and the system should be recharged by your Hyundai dealer.

#### CAUTION:

Running the air conditioning system for extended periods of time with a low refrigerant level may damage the compressor.

G14D1-A

#### Lubrication

To lubricate the compressor and the seals in the system, the air conditioner should be run for at least 10 minutes each week. This is particularly important during cool weather when the air conditioning system is not otherwise in use.

G15A1-A

# CHECKING STEERING WHEEL FREEPLAY

To check the steering wheel freeplay, stop the car with the wheels pointed straight ahead and gently move the steering wheel back and forth. Use very light finger pressure and be sensitive to changes in resistance that mark the limits of the freeplay.

If the freeplay is greater than specified, have it inspected by your Hyundai dealer and adjusted or repaired if necessary. G16A1-A

# CHECKING CLUTCH PEDAL FREEPLAY

With the engine off, press lightly on the clutch pedal until you feel a change in resistance. This is the clutch pedal freeplay.

The freeplay should be within the limits specified. In the illustration below if it is not, have it inspected by your Hyundai dealer and adjusted or repaired if necessary.

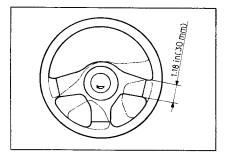
G17A1-A

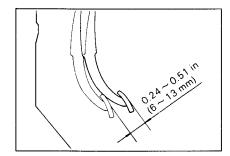
# CHECKING BRAKE PEDAL FREEPLAY

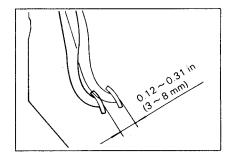
With the engine off, press down on the brake pedal several times to reduce the vacuum in the brake booster.

Then, using your hand, press down slowly on the brake pedal until you feel a change in resistance. This is the brake pedal freeplay.

The freeplay should be within the limits specified in the illustration below. If it is not, have it inspected by your Hyundai dealer and adjusted or repaired if necessary.







G18A1-A

# CHECKING BRAKE PEDAL CLEARANCE

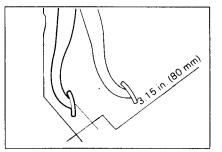
You need a helper to check the brake pedal clearance. With the engine running, have your helper press down on the brake pedal several times and then hold it down with a force of about 110 lbs (50 kg, 490 N). The brake pedal clearance is the distance from the top surface of the brake pedal to the asphalt sheeting under the floor mat.

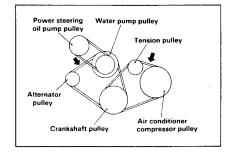
If the brake pedal clearance is not within the limits specified in the illustration, have it inspected by your Hyundai dealer and adjusted or repaired if necessary. G19A1-A

#### CHECKING DRIVE BELTS

Drive belts should be checked periodically for proper tension and adjusted if necessary. At the same time, belts should be examined for cracks, wear, fraying or other evidence of deterioration and replaced if necessary. Belt routing should also be checked to be sure there is no interference between the belts and other parts of the engine.

After a belt is replaced, the new belt should be adjusted again after two or three weeks to eliminate slack resulting from initial stretching after use.





G20A1-A

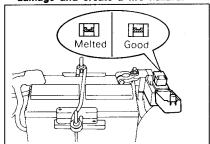
# CHECKING AND REPLACING FUSES

#### Replacing a Fusible Link

A fusible link will melt if the electrical circuits from the battery are ever overloaded, thus preventing damage to the entire wiring harness. (This could be caused by a short in the system drawing too much current.) If this ever happens, have a Hyundai dealer determine the cause, repair the system and replace the fusible link. The fusible links are located in a holder next to the battery for easy inspection.

#### **CAUTION:**

When replacing a fusible link, never use anything but a new fusible link with the same or lower amperage rating. Never use a piece of wire or a higher-rated fusible link. This could result in serious damage and create a fire hazard.



## **DO-IT-YOURSELF MAINTENANCE**

G20B1-A

### **Replacing Accessory Fuse**

The fuse box for the lights and other electrical accessories will be found low on the dashboard on the driver's side. Inside the box you will find a list showing the circuits protected by each fuse.

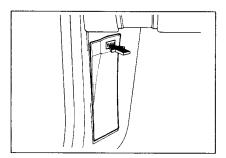
If any of your car's lights or other electrical accessories stop working, a blown fuse could be the reason. If the fuse has burned out, you will see that the metal strip inside the fuse has burned through. If you suspect a blown fuse, follow this procedure:

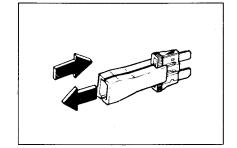
- 1. Turn off the ignition and all other switches.
- Open the fuse box and examine each fuse. Remove each fuse by pulling it toward you (a small "fuse puller" tool is contained in the fuse box to simplify this operation).

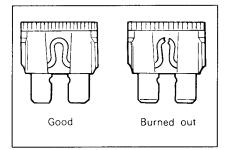
- Be sure to check all other fuses even if you find one that appears to have burned out.
- 4. Replace the blown fuse by pressing a new fuse of the same rating into place. The fuse should be a snug fit. If it is not, have the fuse clip repaired or replaced by a Hyundai dealer. If you do not have a spare fuse, you may be able to borrow a fuse of the same or lower rating from an accessory you can temporarily get along without (the radio or cigarette lighter, for example). Always remember to replace the borrowed fuse.

#### **CAUTION:**

A burned-out fuse indicates that there is a problem in the electrical circuit. If you replace a fuse and it blows as soon as the accessory is turned on, the problem is serious and should be referred to a Hyundai dealer for diagnosis and repair. Never replace a fuse with anything except a fuse with the same or a lower amperage rating. A higher capacity fuse could cause damage and create a fire hazard.







G21A1-A

#### CHECKING THE BATTERY

#### **WARNING**

Batteries can be dangerous! When working with batteries, carefully observe the following precautions to avoid serious injuries.

The fluid in the battery contains a strong solution of sulfuric acid, which is poisonous and highly corrosive. Be careful not to spill it on yourself or the car. If you do spill battery fluid on yourself, immediately do the following:

- If battery fluid is on your skin, flush the affected areas with water for at least 15 minutes and then seek medical assistance.
- If battery fluid is in your eyes, rinse out your eyes with water and get medical assistance as soon as possible. While you are being driven to get medical assistance, continue to rinse your eyes using a sponge or soft cloth saturated with water.
- If you swallow battery fluid, drink a large quantity of water or milk followed by milk of magnesia, eat a raw egg or drink vegetable oil. Get medical assistance as soon as possible.

While batteries are being charged (either by a battery charger or by the vehicle's alternator), they produce explosive gases. Always observe these warnings to prevent injuries from occuring:

o Charge batteries only in a well ventilated

area.

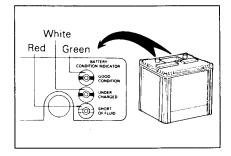
- Do not permit flames, sparks or smoking in the area.
- o Keep children away from the area.

G21B1-A

#### Checking the Battery

Keep the battery clean. Any evidence of corrosion around the battery posts or terminals should be removed using a solution of household baking soda and warm water. After the battery terminals are dry, cover them with a light coating of grease.

To determine the battery charge, check the battery test indicator on top of the battery. If the indicator is green, the battery is normal. If the indicator is white, the battery must be charged. If the indicator is red, the battery must be replaced. Refer to the drawing.



G22A1-A

# CHECKING ELECTRIC COOLING FANS

#### WARNING

The radiator fan is controlled by engine coolant temperature and may sometimes operate even after the ignition key has been turned off. Use extreme caution when working near the blades of the cooling fan, so that you are not injured by a rotating fan blade. As the coolant temperature decreases the fan will automatically shut off. This is a normal condition.

As the coolant temperature decreases the fan will automatically shut off. This is a normal condition.

### Checking Engine Cooling Fan

The engine cooling fan should come on automatically if the engine coolant temperature is high.

#### Checking Condenser Cooling Fan

The condenser cooling fan should come on automatically whenever the air conditioner is in operation.

# **DO-IT-YOURSELF MAINTENANCE**

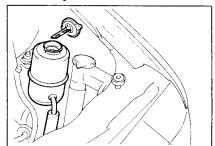
G23A1-A

#### POWER STEERING FLUID LEVEL

The power steering fluid level should be checked at those intervals specified in the vehicle maintenance schedule in Section 5. To check the steering fluid level, be sure the ignition is "OFF", then remove the dipstick, wipe it off, fully reinsert the dipstick and withdraw it again. Then note the highest point the fluid has reached on the dipstick. It should be between the upper "MAX" and lower "MIN" marks.

#### NOTE:

Grinding noise from power steering pump may be heard immediately after the engine is started in extremely cold condition (below-20 C). In this case, if the noise stops during warm up, there is no abnormal function in the system. This is due to a power steering fluid characteristic in extremely cold conditions.



#### Recommended Fluid

Use DEXRON® II automatic transmission fluid.

#### NOTE:

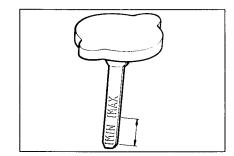
Do not start the engine when the power steering oil reservoir is empty.

G23B1-A

#### **POWER STEERING HOSES**

It is suggested that you check the power steering hose connections for fluid leakage at those intervals specified in the vehicle maintenance schedule in Section 5.

The power steering hoses should be replaced if there is severe surface cracking, pulling, scuffing or worn spots. Deterioration of the hose could cause premature failure.



G24A1-A .

#### FOR MORE INFORMATION ABOUT YOUR HYUNDAI

If you desire additional information about maintaining and servicing your Hyundai, you may purchase a factory Shop Manual at your Hyundai dealer's parts department. This is the same manual used by dealership technicians and while it is highly technical it can be useful in obtaining a better understanding of your car and how it works.

G25A1-A

#### REPLACING LIGHT BULBS

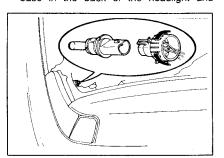
Before attempting to replace a light bulb, be sure the switch is turned to the "OFF" position.

The drawings in the next pages show how to reach light bulbs so they may be changed. Be sure to replace the burned-out bulb with one of the same number and wattage rating.

G26A1-A

## **HEAD LIGHT** REPLACEMENT INSTRUCTIONS:

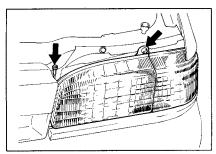
- 1. Allow the bulb to cool. Wear eye protection.
- 2. Always grasp the bulb by its plastic base, avoid touching the glass.
- 3. Unscrew the locking collar securing bulb.
- 4. Disconnect the power cord from the bulb base in the back of the headlight and



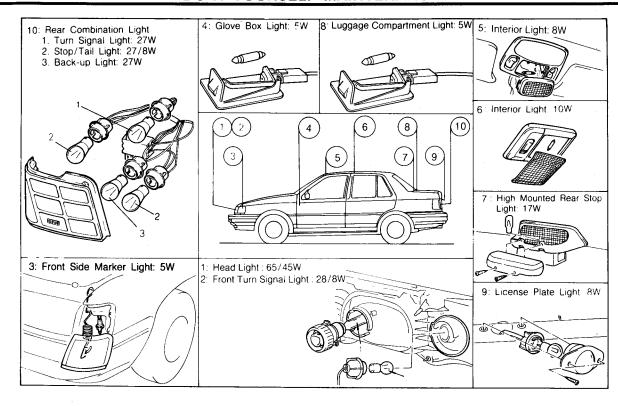
- remove the used bulb from the headlight.
- 5. Remove the protective cap from the replacement bulb and install the new bulb by matching the plastic base with the head light hole. Reconnect the power cord and re-tighten the locking collar.
- 6. Use the protective cap and carton to promptly dispose of the old bulb.
- 7. Check for proper head light aim.

#### WARNING

This halogen bulb contains gas under pressure and if impacted could shatter, resulting in flying fragments. Always wear eve protection when servicing the bulb. Protect the bulb against abrasions or scratches and against liquids when lighted. Turn on the bulb only when installing in a headlight. Replace the headlight if damaged or cracked. Keep the bulb out of the reach of children and dispose of the used bulb with care.



# DO-IT-YOURSELF MAINTENANCE



H00A1-A

# 7. EMISSION CONTROL SYSTEM -

H01A1-A

#### **EMISSION CONTROL SYSTEM**

Your Hyundai is equipped with an emission control system to meet all requirements of the U.S. Environmental Protection Agency or California Air Resources Board. There are three emission control systems which are as follows.

- (1) Crankcase emission control system
- (2) Evaporative emission control system
- (3) Exhaust emission control system

In order to assure the proper function of the emission control systems, it is recommended that you have your car inspected and maintained by an authorized Hyundai dealer in accordance with the schedule in this manual.

H01B1-A

# 1. CRANKCASE EMISSION CONTROL SYSTEM

The positive crankcase ventilation system is employed to prevent air pollution caused by blow-by gases being emitted from the crankcase. This system supplies fresh air to the crankcase through the air cleaner. Inside the crankcase, the fresh air mixes with blow-by gases, then passes through the PCV valve into the induction system.

H01C1-A

# 2. EVAPORATIVE EMISSION CONTROL SYSTEM

The Evaporative Emission Control System is designed to prevent fuel vapors from escaping into the atmosphere.

#### Canister

While the engine is inoperative, fuel vapors generated inside the fuel tank are absorbed and stored in the canister. When the engine is running, the fuel vapors absorbed in the canister are drawn into the induction system through the purge control solenoid valve.

#### **Purge Control Solenoid Valve**

The purge control solenoid valve is controlled by the ECU; when the engine coolant temperature is low, and during idling, it closes, so that evaporated fuel is not taken into the surge tank. After engine warm-up, during ordinary driving, it opens so as to introduce evaporated fuel to the surge tank. H01D1-A

# 3. EXHAUST EMISSION CONTROL SYSTEM

This system has been integrated into a highly effective system which controls exhaust emissions while maintaining good vehicle performance.

### **EGR** system

This system helps control oxides of nitrogen by recirculating a part of the exhaust gas into the intake manifold, thereby reducing cylinder combustion temperatures.

# High altitude compensation system (HAC)

In order to satisfy the Emission Requirements at high altitudes, all vehicles are equipped with the Atmospheric Pressure Sensor.

The atmospheric pressure sensor senses the atmospheric pressure and converts it into a voltage which is sent to the electronic control unit. The ECU uses this signal to compute the altitude at which the vehicle is running and adjusts the air-fuel mixture to the optimum ratio. It also corrects the ignition timing, thus improving driveability at high altitude.

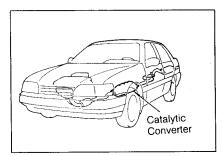
## **EMISSION CONTROL SYSTEM**

H02A1-A

#### **CATALYTIC CONVERTER**

The catalytic converter is part of the exhaust emission control system. Its purpose is to remove certain engine emission products from the engine's exhaust. It looks something like a muffler and is located underneath the car in the exhaust system.

To assure that your car conforms to all applicable emission control regulations, the catalytic converter and emission control system must be inspected and serviced as specified by the vehicle maintenance schedule in Section 5.



H03A1-A

## **About the Catalytic Converter**

Exhaust gases passing through the catalytic converter cause it to operate at very high temperatures. As a result, the introduction of large amounts of unburned gasoline may cause it to overheat and create a fire hazard. This can be avoided by observing the following:

- o Use unleaded fuel only.
- Maintain your engine in good condition.
   Extremely high converter temperatures can result from improper operation of the electrical, ignition or fuel injection systems.
- If your engine stalls, pings, knocks, or is hard to start, take your car to your Hyundai dealer as soon as possible and have the difficulty corrected.
- Avoid driving with a very low fuel level. If you run out of gasoline, it could cause the engine to misfire and result in excessive loading of the catalytic converter.
- Avoid idling the engine for periods longer than 10 minutes.
- Your Hyundai should not be either pushed or pulled to get it started. This can cause the catalytic converter to overload.

- o Take care not to stop your Hyundai over any combustible material such as grass, paper, leaves or rags. As these materials could come in contact with the catalytic converter and could cause a fire.
- Do not touch the catalytic converter or any other part of the exhaust system while the engine is running as it is very hot and could result in burns.
- o Remember that your Hyundai dealer is your best source of assistance.

8. THINGS YOU SHOULD KNOW—

Consumer Information————

# **CONSUMER INFORMATION**

101A1-A

# VEHICLE IDENTIFICATION NUMBER (VIN)

The vehicle identification number (VIN) is the number used in registering your car and in all legal matters pertaining to its ownership, etc. It can be found in three different places on your car:

- On the left top side of the instrument panel where it can be seen by looking down through the windshield.
- On the identification plate attached to the engine side of the firewall between the engine and passenger compartments.
- On the lower side of the left front door pillar.

101B1-A

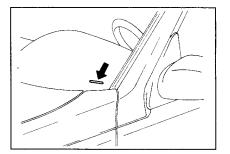
#### **Engine Number**

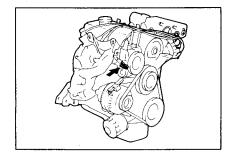
The engine number is stamped on the engine block as shown in the drawing.

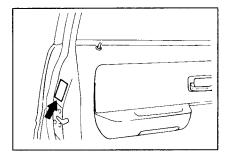
101C1-A

#### TIRE INFORMATION

The tires supplied on your new Hyundai are chosen to provide the best performance for normal driving.







## **CONSUMER INFORMATION**

102A1-A

# RECOMMENDED INFLATION PRESSURES

The tire label located on the left door inner panel gives the tire pressures recommended for your car. These pressures were chosen to provide the most satisfactory combination of ride comfort, tire wear and stability under normal conditions.

Tire pressures should be checked at least monthly. Proper tire inflation pressures should be maintained for these reasons:

- Lower-than-recommended tire pressures cause uneven tread wear and poor handling.
- Higher-than-recommended tire pressures increase the chance of damage from impacts and cause uneven tread wear.

#### CAUTION: Always observe the following:

- o Check pressures when the tires are cold. That is, after the car has been parked for at least three hours and hasn't been driven more than one mile or 1.6 km since starting up.
- Check the pressure of your spare tire each time you check the pressure of other tires.
- Never overload your car. Be especially careful about overloading if you equip your

car with a luggage rack or car top carrier.

103A1-A

#### **SNOW TIRES**

If you equip your car with snow tires, they should be the same size and have the same load capacity as the original tires.

Snow tires should be installed on all four wheels; otherwise, poor handling may result.

Snow tires should carry 4 psi (28 kPa) more air pressure than the pressure recommended for the standard tires on the tire label on the left door inner panel, or up to the maximum pressure shown on the tire sidewall whichever is less.

Do not drive faster than 75 mph (120 km/h) when your car is equipped with snow tires.

104A1-A

#### TIRE CHAINS

#### **CAUTION:**

The chains should not be used on P175/70R 13 tires. With these tires there is not sufficient clearance for chains between the tires and other vehicle components and damage may result.

Tire chains should be installed on the front wheels. Be sure that the chains are the proper size and that they are installed in accordance with the manufacturer's instructions.

To minimize tire and chain wear, do not continue to use tire chains when they are no longer needed.

#### **CAUTION:**

When driving on roads covered with snow or ice, drive at less than 20 mph (30 km/h).

105A1-A

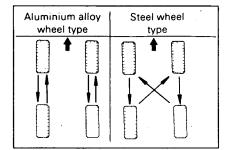
#### TIRE ROTATION

Tires should be rotated every 6,000 miles (10,000 km). If you notice that tires are wearing unevenly between rotations, have the car checked by a Hyundai dealer so the cause may be corrected.

After rotating, adjust the tire pressures and be sure to check wheel nut tightness.

#### **CAUTION:**

- o Do not use the temporary spare tire for tire rotation.
- Do not mix bias-ply and radial-ply under any circumstances. This may cause dangerous handling characteristics.



106A1-A

#### TIRE BALANCING

A tire that is out of balance may affect handling and tire wear. The tires on your Hyundai were balanced before the car was delivered but may need balancing again during the years you own the car.

Whenever a tire is dismounted for repair, it should be rebalanced before being reinstalled on the car.

106B1-A

#### TIRE TRACTION

Tire traction can be reduced if you drive on worn tires, tires that are improperly inflated or on slippery road surfaces. Tires should be replaced when tread wear indicators appear. To reduce the possibility of losing control, slow down whenever there is rain, snow or ice on the road.

106C1-A

### WHEN TO REPLACE TIRES

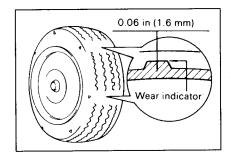
#### **CAUTION:**

Driving on worn-out tires is dangerous! Worn-out tires can cause loss of braking effectiveness, steering control and traction. When replacing tires, never mix radial and bias-ply tires on the same car. If you replace radial tires with bias-ply tires, they must be installed in sets of four.

The original tires on your car have tread wear indicators. The tread wear indicators appear when the tread depth is 0.06 in. (1.6 mm). The tire should be replaced when these appear as a solid bar across two or more grooves of the tread. Always replace your tires with those of the recommended size. If you change wheels, the new wheel's rim width and offset must be those speciefied by Hyundai.

#### CAUTION:

Using tires and wheels of other than the recommended sizes cause poor handling and can be dangerous!



## **CONSUMER INFORMATION**

107A1-A

#### **SPARE TIRE AND TOOLS**

Your Hyundai is delivered with the following:

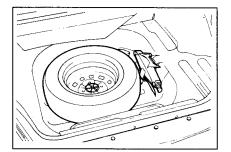
Spare tire and wheel Flex wrench Jack 108A1-A SHOP MANUAL

A Hyundai Shop Manual is available from your authorized Hyundai dealer. It's written for the professional technicians, but is simple enough for most mechanically-inclined owners to understand.

109A1-A

#### CONSUMER INFORMATION

This consumer information has been prepared in accordance with regulations issued by the National Highway Traffic Safety Administration of the U.S. Department of Transportation. It provides the purchasers and/or prospective purchasers of Hyundai automobiles with information on uniform tire quality grading. Your Hyundai dealer will help answer any questions you may have as you read this information.



110A1-A

### Uniform tire quality grading

DOT quality grades — All passenger vehicle tires must conform to Federal Safety Requirements in addition to these grades. These quality grades are molded on the sidewall.

**Treadwear** — The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and a half (1 - 1/2) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate

**Traction A, B, C** — The traction grades, from highest to lowest, are A, B, and C, and they represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

#### WARNING

The traction grade assigned to this tire is based on braking (straight ahead) traction tests and does not include cornering (turning)traction.

Temperature A, B, C — The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

#### WARNING

The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, under inflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure which could result in an accident.

J00A1-A

# 9. VEHICLE SPECIFICATIONS -

# VEHICLE SPECIFICATIONS

#### **MEASUREMENT**

### mm(in.)

		4 DR	3/5 DR	
Overall length		4275 (168.3)	4100 (161.4)	
Overall width		1607 (63.27)	1607 (63.27)	
Overall height (unladen)		1385 (54.52)	1385 (54.52)	
Wheel base		2383 (93.82)	2383 (93.82)	
Wheel tread	Front	1390 (54.72)	1390 (54.72)	
wheel fread	Rear	1340 (52.76)	1340 (52.76)	

#### **POWER STEERING**

Type	Rack and pinion
. 16 -	ridek dila pililari
Wheel free play	0~1,18 in. (0~30 mm)
Wilder free play	0 - 1.10 III. (0 - 30 IIIIII)
Rack stroke	140
nack sticke	140 mm
0.1	<u> </u>
Oil pump type	Vane type
1	

#### FUEL SYSTEM

Fuel tank	Gal	Lmp.gal	Liter
capacity	11.9	9.9	45

### TIRE

 Standard
 P 155/80 R 13

 Option
 P 175/70 R 13

 Spare
 T 105/70 D 14

### SUSPENSION

_	Front	MacPherson strut with coil spring type
Туре	Rear	Suspension arm with coil spring type

#### MANUAL TRANSAXLE

		1414 000 (1)	1414 004 (01 01 0)
1		KM 200 (L)	KM 201 (GL,GLS)
	1 st	3.363	3.363
	2nd	1.947	1.947
Gear ratio	3rd	1.285	1.285
	4th	0.939	0.939
	5th		0.777
Oil capacity (liter)		1.7	1.8

### **AUTO TRANSAXLE**

		KM 176
	1st	2.846
Gear ratio	2nd	1.581
	3rd	1.000
	Over drive	0.685
Oil capacity (liter)		6.1

#### **ELECTRICAL**

Battery	MF 12V 60AH				
Alternator	12V 75A				
0	Auto T/A	0.9 KW			
Starter	Manual T/A	0.7 KW			

### BRAKE

Туре	Dual hydraulic with brake booster		
Front brake type	Ventilated disc		
Rear brake type	Drum		
Parking brake	Cable operated on rear wheel		

# **VEHICLE SPECIFICATIONS**

## **ENGINE**

ITEMS	SPECIFICATIONS		
Engine Type	4-Cylinder in-line OHC		
Idle Speed (RPM)	700±100		
Sports Blue	NGK BUR6EA-11,BPR6ES-11	BUR6EA-11,BPR6ES-11	
Spark Plug	CHMPION RN9YC4		
Spark Plug Gap inch (mm)	1.0 to 1.1 (0.039 to 0.043)		
Valva Classas (Marm angina) mm	Intake v/v 0.07 (0.15)		
Valve Clearace (Warm engine) mm	Exhast v/v 0.17 (0.25)		
Ignition Timing	BTDC 5° ± 2°		
Firing Order	1-3-4-2		

## **LUBRICATION CHART**

Item		Oil & Grease Standard	Q'ty (liter)	
Engine Oil		API SF, SAE 20W-20, 20W-40, 20W-50 (ABOVE 32°F OR 0°C) SF/CC SAE 10W-30, 10W-40, 10W-50 (ABOVE-10°F OR-23°C) or SG SAE 5W-20(*1,*2), 5W-30, 5W-40 (BELOW 60°F OR 16°C) *1. Restricted by driving condition and climate	Dry fill: 3.4 (3.6 us.qts, 3.0 Imp.qts)  Drain and refill  W/o oil filter: 2.7 (2.9 us.qts, 2.3 Imp.qts)	
<u></u>	Manual	*2. Not recommended for sustained high speed vehicle operation  HP GEAR OIL SAE 75W/85W OR API GL-4 SAE 75W/85W	W oil filter 3.1 (3.3 us.qts, 2.7 lmp.qts)  1.8 (1.9 us.qts, 1.6 lmp.qts)	
Transaxle	Auto	DIAMOND ATF SP, APOLLOIL ATF SP, GENUINE HYUNDAI ATF AUTOMATIC TRANSMISSION FLUID or MOPAR ATF PLUS TYPE 7176	61 (64 us ats 54 lmp.ats)	
Power stee	ring	ATF DEXRON® II	0.9 (0.95 us.qts, 0.79 lmp.qts)	
Brake fluid Wheel bearing Coolant		DOT 3 equivalent	As required	
		Multipurpose grease NLGI-2, EP	As required	
		Ethylene glycol base for aluminum radiator	5.3 (5.6 us.qts, 5.0 Imp.qts)	

\_\_\_\_\_ 10. INDEX \_\_\_\_\_\_

A	Air conditioner       6-13         —care       1-35~1-41		Child restraint system
	Air filter       6-8         Ashtray       1-26         Audio system       1-41~1-53         Automatic transaxle       -checking fluid       6-10~6-11         -operation       2-6~2-8         -overdrive switch       2-9         -normal/econimy switch       2-7		—interior       4-4         —exterior       4-2~4-3         Clock       1-25         Consumer information       8-1~8-6         Coolant       -changing       6-6~6-7         —recommended use       9-3         Cooling system
В	Balancing tires.       8-4         Battery.       6-17         Bi-level heating.       1-35		—checking       6-6         —fans       6-17         Corrosion protection       4-2
	Brake         —fluid       .6-11~6-12         —lamp       .1-31         —operation       .2-9         —pedal play       .6-14         —pedal clearance       .6-15         "Breaking In" your new Hyundai       .1-2	D	Dashboard       1-17         Day-night mirror       1-28         Defroster
С	Cassette tape player       1-45~1-46         —C-320 model       1-50~1-52         Child protector locks       1-4		Dome lamp       1-27         Door locks       1-3~1-4         Drive belts       6-15         Driving tips       2-3~2-12

Ε	Economical driving		Gauges	
	Emission control system		Glove box:	1-20
	Emergency	н	Hazard warning system	1-24
	—flat tire		Headlamp	6-19
	—starting		Headrests	1-5
	—towing 3-11		Heater	
	Engine		—lever type	
	—compartment 6-2		-rotary type	
	—number 8-2		High mount stop light	
	—oil 6-4		Hood	
	—starting		Horn	1-34
F	Fan	. [	Identification numbers	8-2
	—cooling 6-17		Idle speed	9-3
	—heater (lever type) 1-35		Ignition switch/steering lock	2-3
	-heater (rotary type)1-37~1-39		Indicator lights	. 1-19~1-20
	Flat tire		Inflation pressure, fire	8-3
	Front seats 1-5~1-6		Instrument cluster	1-18
	Fuel		Instruments and controls	
	—filler cap 1-31		Interior, cleaning	4-4
	—filler door release1-31~1-32		Interior light	
	—requirements		Intermittent wiper	1-23
	Fuses	J	Jacking, operation	3-7
G	Gasohol1-2		Jump starting procedures	
	Gasoline (see fuel)	K	Keys	

L	Light bulb replacement       6-20         Light controls       1-22~1-23         Locks       1-3~1-4         Lost keys       1-3         Lubricants       9-3	R	Radio/tape player	1-29 1-28 1-24
M	Maintenance —requirements		—fuel filler door release	1-30 1-25 8-4 1-27
	Mirrors day-night rear view	S	Scheduled maintenance  Seats —front —rear	1-5~1-6
0	Odometer       1-21         Oil, engine       6-4         —adding       6-5         —filter       6-5         —changing       6-5         —checking       6-4         —overheating       3-3~3-4		Seat belts care	-10~1-13 1-9~1-10 5-2 8-5
P	Parking brake		Spare tire	3-4 . 6-7~6-8

Speedometer 1-20	
Starting procedures2-3~2-4	
Steering	
—column lock	
· ·	
· · · · · · · · · · · · · · · · · · ·	
Owneries1-2   11-22	
Tachometer1-21	
Tires	
balancing 8-4	
-chains 8-3	
flat	
—information 8-2	
-pressure (see left door inner panel) 8-3	
—replacement 8-4	
—rotation	
—snow tires	
	Starting procedures       2-3~2-4         Steering       2-3         —free inspection       6-18         —tilt       1-32         Stereo sound system       1-41~1-52         Sunroof       1-25~1-26         Sun visor       1-32         Switches       1-21~1-22         Tachometer       1-21         Tires       -balancing       8-4         —chains       8-3         —flat       3-5         —information       8-2         —pressure (see left door inner panel)       8-3         —replacement       8-4

	Transaxle  —automatic  —automatic transaxle fluid check  —manual transaxle fluid check  Trip odometer  Trunk	6-10~6-1 . 6-9~6-1 1-2
V	Vehicle identification number  Ventilation —lever type —rotary type  Visors	1-3 1-37~1-3 8-
W	Warning lights Washing and waxing Wheels —removal and repalcement Windows Wiper blades Wiper/washer fluid	4-3~4-

This Owner's Manual should be considered a part of the car and remain with it when it is sold for the use of the next owner.

	OWNER'S	S I.D.
CITY	STATE	
DEALER NAME		(Date Sold to Original Retail Purchaser) DEALER NO.
CITY	STATE	ZIP CODE

All information in this Owner's Manual is current at the time of publication.

However, Hyundai reserves the right to make changes at any time so that our policy of continual product improvement may be carried out.

# SERVICE STATION INFORMATION FUEL:

UNLEADED gasoline only.

Pump Octane Rating of 87 (Research Octane Number 91) or higher.

#### **FUEL TANK CAPACITY**

Original, gal (Imp. gal., liter) 15.9 (13.2, 60)

#### TIRE PRESSURE:

See the label on the left door inner panel.

## OTHER TIRE INFORMATION:

See pages 8-2 through 8-6.

#### **HOOD RELEASE:**

Pull handle under left side of dash.

#### **ENGINE OIL:**

API grade SF, SF/CC or SG multigrade and fuel efficient oil. Use SAE 10W—30 or 10W—40 if normal temperatures are above —10°F (—23°C). For other viscosity recommendations, see page 6-4.

#### MANUAL TRANSAXLE:

API GL—4 SAE 75W—85W, HP GEAR OIL SAE 75W-85W. Oil level should be up to filler-bolt hole in housing beside deifferential.

### **AUTOMATIC TRANSAXLE:**

Apply the parking brake, with the engine running, shift the selector lever through all ranges and return to "N". Then sheck the level of fluid on the dipstick, the DIAMOND ATESP, APOLLOIL ATESP, MOPAR ATE PLUS TYPE 7176 or GENUINE HYUNDAI ATE AUTOMATIC TRANSMISSION FLUID.

#### QUICK INDEX

0	Car will not start 3-2
0	Flat tire
	Warning light/chime comes on 1-19
0	Engine overheats 3-3
0	Towing of your vehicle
0	
0	Driving tips for first 1,200 miles (2,000 km) 1-2
0	Vehicle maintenance schedule 5-3

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