

 **I-4 ENGINE —**

I-4 ENGINE
(See “ENGINE”)

IGNITION SYSTEM

The engine system that ignites the mixture of air and fuel that flows into the cylinders. Ignition systems typically include a distributor or control module, a coil and spark plugs. The coil generates high voltage to the distributor or control module, which distributes the high voltage to each spark plug at a precise moment (referred to as “timing”).

(See “DISTRIBUTOR IGNITION SYSTEM,” “DISTRIBUTORLESS IGNITION SYSTEM,” “TIMING”)

— INTAKE MANIFOLD



IMMOBILIZER IGNITION KEY

Introduced on the 2006 Azera, this is a theft prevention system that uses an ignition key containing a microchip transponder. When inserted into the ignition switch, the transponder sends an ID code to the immobilizer ECU. When the immobilizer ECU verifies that the code is correct, it sends a second code to the engine control module signaling that it is okay for the engine to run. If the correct code is not verified and a second code generated, the engine will not start. Each time the ignition is turned off the ECM generates a new code that will be used for the next start. What's important for your customers to understand is that this special ignition key does not require a battery and that extra keys cannot be duplicated by a local locksmith, but must be made at your local Hyundai dealership. Each Azera comes with two main keys and one valet key. If a key is lost or additional keys are needed, all existing keys must be brought to the dealership to be reprogrammed to match the new key's programming. Immobilizer ignition keys are a theft deterrent.

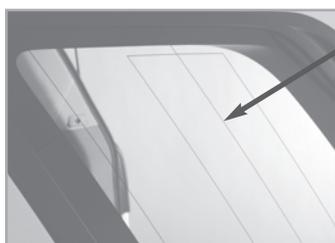


INDEPENDENT REAR VENTILATION

A ventilation system for rear-seat occupants.

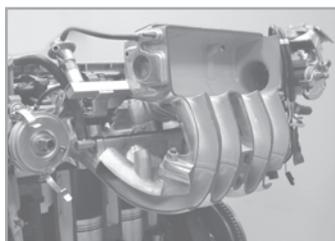
INDEPENDENT SUSPENSION

(See "4-WHEEL INDEPENDENT SUSPENSION")



IN-GLASS ANTENNA

A radio antenna imbedded in either the rear or side glass of a vehicle. Vehicles with in-glass antennas have cleaner exterior styling as the antenna is practically invisible. Also, in-glass antennas are less prone to damage or vandalism than traditional fender-mounted antennas. All Sonata and Azera models feature a standard in-glass rear antenna.



INTAKE MANIFOLD

A ducting system that routes the incoming air from the throttle body to the intake ports in the cylinder head(s). An intake manifold is made up of a large chamber (plenum) which has passages (runners) attached to it. The air enters the plenum and then is routed through the runners into each cylinder's intake port, where fuel is injected.

◆ INTEGRATED MEMORY SYSTEM (IMS) —



INTEGRATED MEMORY SYSTEM (IMS)

A system which can save a number of individual driver settings like power-seat and power-mirror settings. With this system, once someone sets the power driver's selections into the integrated memory system, the seat position and other settings will automatically activate when the driver uses their remote entry or activates their selection using the door key pad. This allows the driver to retrieve those settings automatically with the push of a single button, after someone else has driven the car. Azera's integrated memory system allows two different memory settings to be stored.

INTERIOR DIMENSIONS

Key interior measurements of the roominess of a vehicle's interior. Interior dimensions are provided at fixed standardized points within a vehicle's interior. The measurements are done to standards set by the Society of Automotive Engineers (SAE). Some key measurements include:

- **Head room (inches):** The distance from the bottom of the seat to the roof headliner
- **Hip room (inches):** The distance between the door panels at the hip level
- **Leg room (inches):** The distance from the back of the seat to the accelerator pedal or seat in front
- **Shoulder room (inches):** The distance between the door panels at the shoulder level

INTERIOR (PASSENGER) VOLUME

A measure in cubic feet of the size of a vehicle's interior. Interior volume includes the height, width and length dimensions of the passenger cabin that includes the seat width, head room and leg room of the vehicle. The EPA classifies vehicles depending on the total passenger volume plus the cargo volume.



INTERMITTENT WINDSHIELD WIPERS

Windshield wipers that can be set to operate at set timed intervals instead of a constant speed. Intermittent wipers can be fixed (several preset time delays) or variable (infinite adjustment of the intervals). Intermittent windshield wipers are a benefit in light rain or drizzle, where a constant wiping of the glass is not necessary.

ISOFIX

The European reference to LATCH.
(See "LATCH SYSTEM")

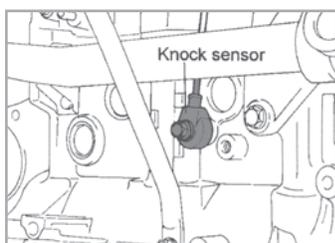
—LIFTER 

 **K**



KEYLESS ENTRY SYSTEM

A system that uses a small radio transmitter to command a vehicle to lock or unlock the doors, allowing the user to perform these functions remotely without having to use a key. Keyless entry systems feature a small fob with button controls to lock or unlock a vehicle's doors. Some keyless entry systems are integrated into an alarm system as well.



KNOCK SENSOR

A sensor mounted on an engine that detects the high-frequency vibrations that are the early signs of engine damaging “pinging,” “knocking” or “pre-ignition.” A computerized engine control system which utilizes a knock sensor allows an engine to operate with improved power and efficiency by controlling the engine ignition timing, so that it is maximized for power and economy, while keeping it just below the pre-ignition area under constantly changing engine demands.

 **L**



LATCH SYSTEM

Lower Anchors and Tethers for CHildren (LATCH), an acronym used for the universal child seat anchoring system. The system uses two horizontal bars to attach the lower part of a child restraint to the vehicle. The bars are located in the space between the seatback and bottom cushion of the rear seat. Additionally, a supplemental anchor point is provided to attach a child seat's tether strap.

LATERAL ACCELERATION

The sideways g force that is felt when a vehicle is driven around a turn.
(See “G”)



LCD (LIQUID CRYSTAL DISPLAY)

A type of display used in many electronic automotive devices such as digital clocks, radios, climate controls and trip computers. LCDs use two sheets of polarized material with a liquid crystal solution in between. When an electric current passes through the liquid, the crystals align so that no light passes through them. Basically, the crystals act like shutters arranging themselves to let only the light needed to display information through. LCDs provide easy to see displays of information in automotive radios, clocks, and climate controls.

LEG ROOM (FRONT AND REAR)

(See “INTERIOR DIMENSIONS”)

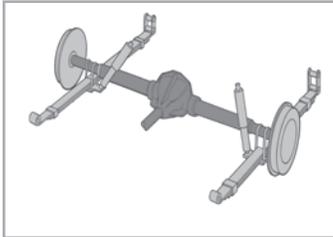
LIFTER

(See “VALVE LIFTER”)

◆ LIMITED-SLIP DIFFERENTIAL —

LIMITED-SLIP DIFFERENTIAL

A differential that splits torque to the rear wheels based on available traction—when one wheel begins to slip, power is automatically transferred to the other wheel. Limited-slip differentials ensure that both drive wheels are supplied with some torque even when one is on a slippery surface. Limited-slip differentials are helpful during cornering or in poor-traction conditions, such as snow or gravel.



LIVE AXLE

A rigid axle which incorporates a differential and axle shafts to power the wheels, usually found in some rear-wheel-drive vehicles. Vehicles with a live rear axle cannot have an independent rear suspension. Live axles are typically found in vehicles that are intended to carry a heavy load, such as pick-up trucks and commercial vehicles.

LOAD

1. The amount of weight placed in a vehicle.
2. A demand for power placed upon the engine.

LOCK-UP TORQUE CONVERTER

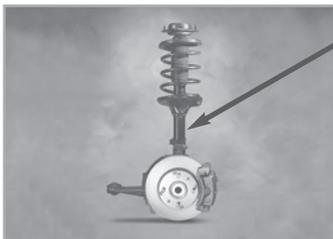
A torque converter that has a special clutch that is automatically engaged at a preset condition to lock the torque converter's input shaft to the engine's output shaft, resulting in improved fuel economy. All Hyundai vehicles with automatic transmissions utilize a lock-up torque converter.



LUMBAR SUPPORT

A feature found in some seats that allows the occupant to adjust the amount of lower back, or "lumbar," support. Driver's adjustable lumbar support is standard on Sonata GLS and LX, and all Elantra, Tiburon, Santa Fe and Azera models.

◆ M



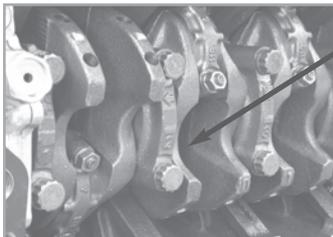
MACPHERSON STRUT

A component of an independent suspension that combines the coil spring and shock absorber into one simple, space-saving unit. MacPherson struts are most commonly used in the front of a vehicle, although they can also be used in the rear. This design uses fewer parts, weighs less and requires less maintenance than traditional suspensions.

MAIN BEARINGS

The soft metal shell-shaped bearings that support the crankshaft of an engine. The main bearings allow the crankshaft to spin within the engine block and main bearing caps with minimal wear and friction. They are lubricated with pressurized oil supplied by the engine's oil pump.

—MICRO ANTENNA



MAIN BEARING CAPS

Semicircular caps which are bolted to the engine block and hold the main bearings and crankshaft in place. Each main bearing has its own bearing cap.

(See “CRANKSHAFT”)

MAINTENANCE SCHEDULE

A schedule of recommended service established by a vehicle’s manufacturer to ensure a long, trouble-free life for the vehicle. Maintenance schedules are typically set up at predetermined mileage and/or time intervals. Maintenance schedules cover engine, emissions, drivetrain, brakes, suspension, air conditioning system and other components. These components benefit from regular maintenance, which involves checking the condition of components (and replacing if necessary), adjustments and lubrication.

MANIFOLD

A component that has chambers and/or passages designed to route gases. Most automotive engines have an intake manifold and an exhaust manifold(s).

(See “INTAKE MANIFOLD;” “EXHAUST MANIFOLD”)



MANUAL TRANSMISSION

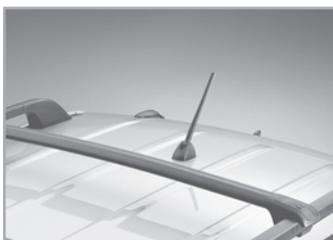
A transmission that requires the driver to manually select gears and engage or disengage the transmission from the engine via a clutch pedal. Vehicles with manual transmissions require the driver to monitor engine speed, vehicle speed and gear selection, but typically offer improved performance and fuel economy gains over vehicles with automatic transmissions. Manual transmissions also weigh less and have fewer components than automatic transmissions.



MASTER CYLINDER

A cylinder attached to a reservoir of hydraulic fluid which supplies hydraulic pressure into a sealed system. A brake master cylinder is used in a braking system to supply hydraulic pressure to the wheel brakes. A clutch master cylinder is used in vehicles with hydraulically operated clutches to supply pressure to a slave cylinder, which operates the clutch.

(See “BRAKING SYSTEM”)



MICRO ANTENNA

A small radio antenna (approximately six inches long) mounted on the center rear of the roof. It has a stylish swept back look and can be folded down to clear roof rack cargo and still receive normal radio reception. Tucson, Santa Fe and the 2006 Accent have a micro antenna.

◆ **MID-RANGE SPEAKER—**

MID-RANGE SPEAKER

A type of speaker that is designed to reproduce the mid-level tones in an audio system.

MONRONEY LABEL



The sticker that is pasted on a window of a new vehicle. It is named after the senator who introduced legislation mandating that all new vehicles have a consumer information label. The label displays the vehicle's base price, major standard equipment, itemized prices for optional equipment, freight charges and the total MSRP. Monroney labels also include information about fuel economy estimates, EPA category and emissions information.

MONOCOQUE

(See "UNIBODY")

MOONROOF



Section of a vehicle's roof that opens, either manually or motorized, as desired, to introduce sunlight or additional airflow into the passenger compartment.

(See "SUNROOF")

MP3 PLAYER

MP3 is a music compression format. It enables large amounts of music to be stored in less space. Roughly 20 songs converted to the MP3 format can fit into the same space as one CD song. MP3 was first popular in small, pocket-sized devices that stored literally thousands of songs. On the Hyundai vehicles with a Kenwood MP3 player, the songs are downloaded to the player on a CD that the consumer has created on a computer. This allows a multitude of custom song lists on a single CD.

MPG

The acronym for miles per gallon, it is an indicator of a vehicle's fuel economy. These fuel economy estimates are the results of tests required by the Environmental Protection Agency (EPA). They are used by the EPA to certify that vehicles meet Federal fuel economy standards. There are two types of mpg estimates: city and highway. These numbers are displayed on a vehicle's Monroney label.

MSRP

The acronym for Manufacturer's Suggested Retail Price, it is the retail selling price recommended by the manufacturer. It does not include applicable destination charges, state and local taxes, license fees, special items, or service. Also known as the "sticker" price.

—MULTI-POINT INJECTION (MPI)/MULTI-PORT FUEL INJECTION (MFI)



MUFFLER

A canister with internal baffles and sound-insulating materials that is attached to a vehicle's exhaust pipes to reduce a vehicle's exhaust noise. Some mufflers are tuned to create a distinct exhaust sound. High-performance mufflers are designed to provide less back pressure, which may increase engine power.

MULTI-ADJUSTABLE SEAT

A seat that can be adjusted in various ways.

(See "4-, 6- AND 8-WAY ADJUSTABLE SEATS")



MULTI-LINK SUSPENSION

A suspension system which has a number of links or arms that give longitudinal, vertical and lateral support to the wheels. Multi-link suspensions, while more expensive to manufacture than pure strut-type rear suspensions, typically provide greater suspension travel and consistent tire control over a wider range of conditions, for superior ride and handling characteristics. All Hyundai vehicles have rear multi-link suspension designs.

(See "SUSPENSION SYSTEM")

MULTI-POINT INJECTION (MPI)/MULTI-PORT FUEL INJECTION (MFI)

The same as port injection where one fuel injector is placed just ahead of the intake port at each cylinder.

(See "FUEL INJECTION")