

—NITROGEN OXIDES (NOX)

N

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Gases produced from burning fuels, including gasoline, diesel and coal. Nitrogen oxides are smog-formers, which react with volatile organic compounds to form smog. Nitrogen oxides are also major components in acid rain.

O

O₂ SENSOR

The primary measurement device of exhaust gases for the engine control computer in a car to determine if the fuel mixture is too rich or too lean. Oxygen (O₂) sensors are used to achieve good fuel economy, low emissions and good power.

◆ OCCUPANT CLASSIFICATION SYSTEM (OCS)—

OCCUPANT CLASSIFICATION SYSTEM (OCS)

The Occupant Classification System detects the presence of a passenger in the front passenger's seat and turns off the front passenger's airbag under certain conditions. With OCS, if the front passenger's seat is unoccupied or occupied by a passenger and the indicator displays: "PASSENGER AIRBAG OFF," the front passenger's airbags will be turned off and will not deploy in a frontal crash. If the "PASSENGER AIRBAG OFF" indicator is not illuminated, the passenger's airbag will deploy in a frontal crash. All 2004 and newer Elantra, 2006 Accent, 2006 Sonata and Azera models have OCS.

- Luggage or other cargo should not be placed on the front passenger's seat. This can allow the deployment of the front passenger's and/or side airbag in the case of an accident.
- Even with OCS, a child restraint system must never be placed in the front seat; recommend to your customers that all children under age 13 should ride in the back seat.

OCTANE

A unit of measurement intended to indicate the tendency of fuel to detonate. The higher the rating, the greater the resistance to detonation by the fuel. Normally, higher performance engines require higher octane rated fuels.



ODOMETER

An instrument that records the distance traveled. It is usually located near or below the speedometer.

OEM (ORIGINAL EQUIPMENT MANUFACTURER)

Refers to the original manufacturer of the vehicle (i.e., Hyundai is considered to be an OEM).

ON-DEMAND 4-WHEEL DRIVE

This type of system is the pinnacle of safety and convenience in 4-wheel drive. As found in Santa Fe LX and GLS with the 3.5-liter engine and all 4-wheel-drive Tucson, it consists of an electronically controlled transfer case that, when sensing wheel slip, will transfer power to the whichever axle, front or rear that is not currently slipping. Under dry, straight conditions, the system runs with 99% of its power to the front wheels, saving fuel and providing superior front-wheel-drive traction. When slip is detected, it will automatically (quicker than a driver can push a button) move up to 50% of the power to the rear wheels, or any ratio in between to minimize slip. Tucson models also have a 50/50 lock button, for off-road conditions, so a driver can choose to lock the ratio.

ONE-TOUCH AUTO-DOWN POWER WINDOWS

(See "AUTO-DOWN POWER WINDOWS")

OVERALL HEIGHT

(See "EXTERIOR DIMENSIONS")

—PASSENGER PRESENCE DETECTION (PPD)

OVERALL LENGTH

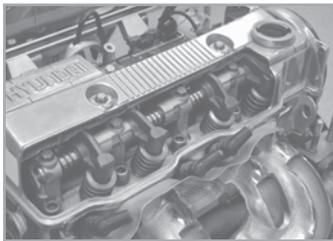
(See “EXTERIOR DIMENSIONS”)

OVERALL WIDTH

(See “EXTERIOR DIMENSIONS”)

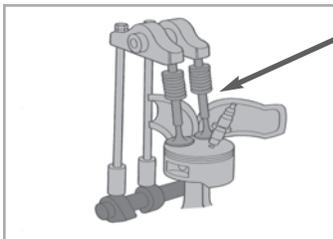
OVERDRIVE

Overdrive is specialized gearing within a transmission that provides a final drive ratio of less than 1:1. This allows the driveshaft to rotate faster than the engine crankshaft. Normally engaged only at highway speeds, overdrive allows the engine to operate at lower rpm, providing enhanced fuel economy and quieter operation and minimizes wear-and-tear on the engine.



OVERHEAD CAM (OHC)

The type of engine configuration in which the engine’s camshaft is mounted above the cylinder head(s). Overhead cam engines typically are lighter in weight, have fewer moving parts and can run at higher rpm than engines using push-rod valvetrains.



OVERHEAD VALVE (OHV)

An engine with both intake and exhaust valves placed directly over the piston, but with its camshaft placed in the cylinder block and actuating the valves through push rods and rocker arms. Also known as a “push-rod” engine.



PASSENGER PRESENCE DETECTION (PPD)

The Passenger Presence Detection system detects the presence of a passenger in the right front seat. If no passenger is recognized on the front passenger’s seat, the deployment of the front passenger’s and/or side airbag and seatbelt pretensioner will be prevented. This system is designed to prevent the replacement of airbag components that deploy needlessly in an accident. The 2004–2005 Sonata and XG350 models have the Passenger Presence Detection feature.

- Luggage or other cargo should not be placed on the front passenger seat. This can allow the deployment of the front passenger and/or side airbag in the case of an accident.
- Even with PPD, a child restraint system must never be placed in the front seat; recommend to your customers that all children under age 13 should ride in the back seat.

◆ PASSENGER VOLUME —

PASSENGER VOLUME

Passenger volume is a measure that determines the actual capacity of a vehicle's interior for occupants. SAE calculates passenger compartment volume from many height, width and length dimensions inside a given vehicle, including head room, foot room, seat width, etc. The interior volume or passenger volume is usually represented in cubic feet.

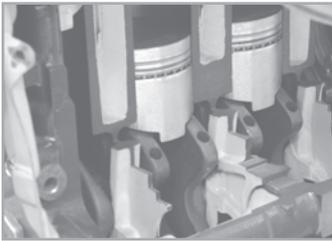


PASSIVE RESTRAINT SYSTEM

Automatically actuated collision protection for driver and passengers that may include seatbelt pretensioners, force limiters, airbags and automatic seatbelts.

PERFORMANCE TIRES

Tires that deliver enhanced handling, grip and cornering capabilities as compared to standard tires.



PISTONS

A piston is a cylindrically shaped part with one end closed and the other open. Located inside the cylinder, the closed end forms the floor of the combustion chamber and the open end is coupled by the connecting rod to the crankshaft. As the piston moves up and down, the air/fuel mixture in the cylinder is first compressed, then ignited. As the mixture burns (combusts), it expands, forcing the piston down and transferring the power of the combustion to the crankshaft.

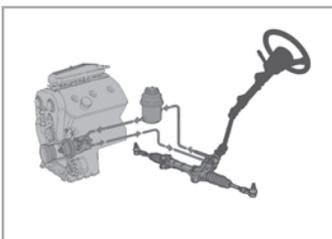
POWER ANTENNA

Electrically actuated antenna that extends from its protective housing using an internal motor and pulley system. Usually, a power antenna deploys automatically when the vehicle's sound system (radio) is activated in the radio mode.

POWER BRAKES

A braking system that utilizes a brake booster that automatically increases the braking pressure so there is less pedal effort required by the driver to slow or stop the vehicle. The brake booster uses vacuum produced by the vehicle's engine to increase the hydraulic pressure used in the braking system. All Hyundai vehicles are equipped with power brakes.

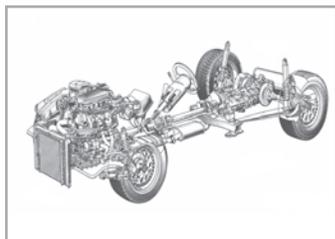
(See "BRAKE SYSTEM")



POWER STEERING

Power steering (or power-assisted steering) systems use hydraulic or electric boosters to ease driver effort to turn a vehicle's steering wheel. Most common are hydraulic systems that use a power steering pump driven by a fan belt on the vehicle's engine. All Hyundai vehicles are equipped with power steering.

—QUARTER PANEL



POWERTRAIN

Describes the group of components used to transmit power to a vehicle's drive wheels. It can consist of engine, clutch, transmission, transaxle, universal joints, velocity joints, drive shaft, differential gears and axle shafts.

POWERTRAIN WARRANTY

A warranty that covers a vehicle's powertrain (i.e., engine, transmission or transaxle, universal joints or velocity joints, drive shaft[s], axle shafts and differential gears.) All 2006 Hyundai vehicles feature a comprehensive 10-year/100,000-mile powertrain warranty.

PRETENSIONER SEATBELT

A device that, when activated in certain frontal collisions, pulls the seatbelt into tighter contact against an occupant's body to make sure that the seatbelts fit snugly.



PRIVACY GLASS

Deeply tinted glass, usually used in the side and rear windows, that helps keep the sun's rays out of the passenger compartment, keeping the interior cooler and adding an added measure of privacy to vehicle occupants.



PROJECTOR BEAM HEADLIGHTS

Projector beam headlights utilize a spherical lens and parabolic reflector system that tightly controls the headlight beam, resulting in more light where drivers want and need it—on the road.

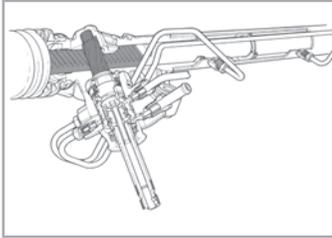


QUARTER PANEL

The vehicle's exterior covering the area from the rear-door opening to the taillight area, and from the bottom of the surface to the base of the roof.

◆ RACK-AND-PINION STEERING —

◆ R



RACK-AND-PINION STEERING

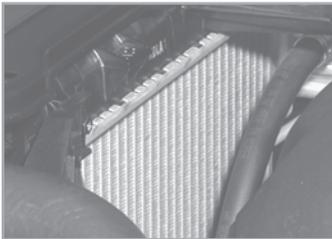
A type of steering system that uses a small gear (pinion) to move a linear gear (rack) horizontally. The tie rods are attached to either side of the rack, eliminating a number of components used in a conventional worm-gear steering system. All Hyundai vehicles use rack-and-pinion steering systems.



RADIAL TIRE

Tire construction utilizing plies whose cords run radially from bead to bead under the tire's tread. The advantages are more flexible side walls with a relatively stiff tread area, and a larger and more consistent footprint on the road under all driving conditions. All Hyundai vehicles are equipped with radial tires.

(See "PERFORMANCE TIRES")



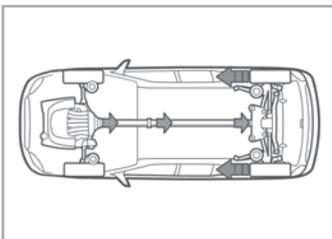
RADIATOR

The engine's heat exchanger. Coolant circulating around the engine's cylinders and through the cylinder head carries engine combustion heat to the radiator, where it is released to the atmosphere, thereby reducing the temperature of coolant.

(See "COOLING SYSTEM")

RAIN-SENSING WINDSHIELD WIPERS

Optional on Azera, will start the windshield wipers when sensing precipitation on the windshield.



REAR-WHEEL DRIVE

Drivetrain configuration that drives only the rear wheels.



REAR WINDOW DEFROSTER

A defrosting or de-misting system that typically uses thin wires embedded in the vehicles rear glass to remove mist or frost. The system's wires heat up, thereby heating the glass slightly to help evaporate moisture on the surface and improve visibility. All Hyundai vehicles have a standard rear window defroster.

—RON (RESEARCH OCTANE NUMBER)



REAR WINDOW SUNSHADE

A sunscreen that can be raised over the rear window, at a touch of a button, to keep rear-seat passengers comfortable. Automatically retracts when the transmission is put in reverse. Standard equipment on Azera Limited.

REFLECTOR HALOGEN HEADLIGHTS

(See "PROJECTOR BEAM HEADLIGHTS")

REFRIGERANT

A chemical compound, typically gas or liquefied gas (R-12 and R-134), used in air conditioning systems as the operational system fluid to produce cool air.

RESONATOR

A secondary muffler, often used to generate a desired exhaust note or further quiet a vehicle's exhaust system.

RIDE HEIGHT

A measurement between the ground and some fixed reference point on a car's body (the reference point varies according to the manufacturer). This dimension can be used to measure the amount of suspension deflection or the height of the body from the ground.



ROLLER ROCKER (ARM)

A type of rocker arm used in an engine's valve train to open/close intake and exhaust valves. A roller rocker uses a roller bearing at the end that makes contact with the engine's valves to reduce wear and increase performance.

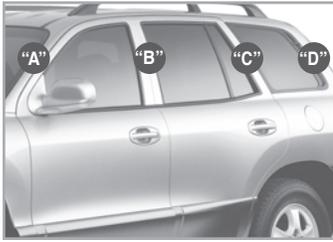
ROLLING RESISTANCE

As a vehicle's wheels begin to turn, there are forces which resist its motion (rolling resistance), such as low tire pressure, rough road surface, increased tire temperature, tire composition and increased vehicle weight.

RON (RESEARCH OCTANE NUMBER)

A fuel's numeric octane rating. Most common are 87 (unleaded regular), 89 (unleaded, middle grade) and 91 (unleaded premium).
(See "OCTANE")

◆ ROOF PILLARS—RPM (REVOLUTIONS PER MINUTE)



ROOF PILLARS

Roof pillars or roof posts are formed metal structures that provide support for a vehicle's roof. Typically, vehicles have an A-pillar for the forward roof support located near the windshield; a B-pillar for the center or second roof support normally between the front and rear doors; and the C-pillar located behind the rear door opening near the rear window. Wagons and SUVs may also have a D-pillar at the rear corners of the vehicle.

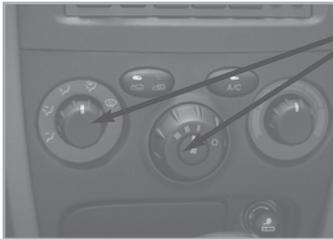


ROOF RACK

An auxiliary cargo area on a vehicle's roof, typically used on wagons and SUVs, the racks feature fixed roof side rails and adjustable cross rails to secure cargo.

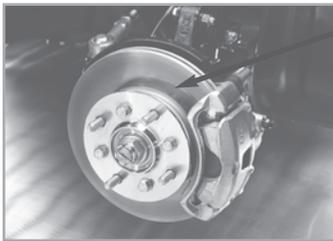
ROOF SIDE RAILS

(See "ROOF RACK")



ROTARY-TYPE CLIMATE CONTROLS

Climate controls that use rotary knobs rather than levers or buttons to control climate system functions.



ROTOR

In a disc brake system, the disc rotates on the axle and incorporates both attachment for the wheel and a braking surface contained in the brake caliper.

(See "DISC BRAKE")

RPM (REVOLUTIONS PER MINUTE)

A measure of the number of revolutions an engine's crankshaft completes per minute. The tachometer on a vehicle's dash measures rpm.

(See "TACHOMETER")