

AIM OF DEVELOPMENT

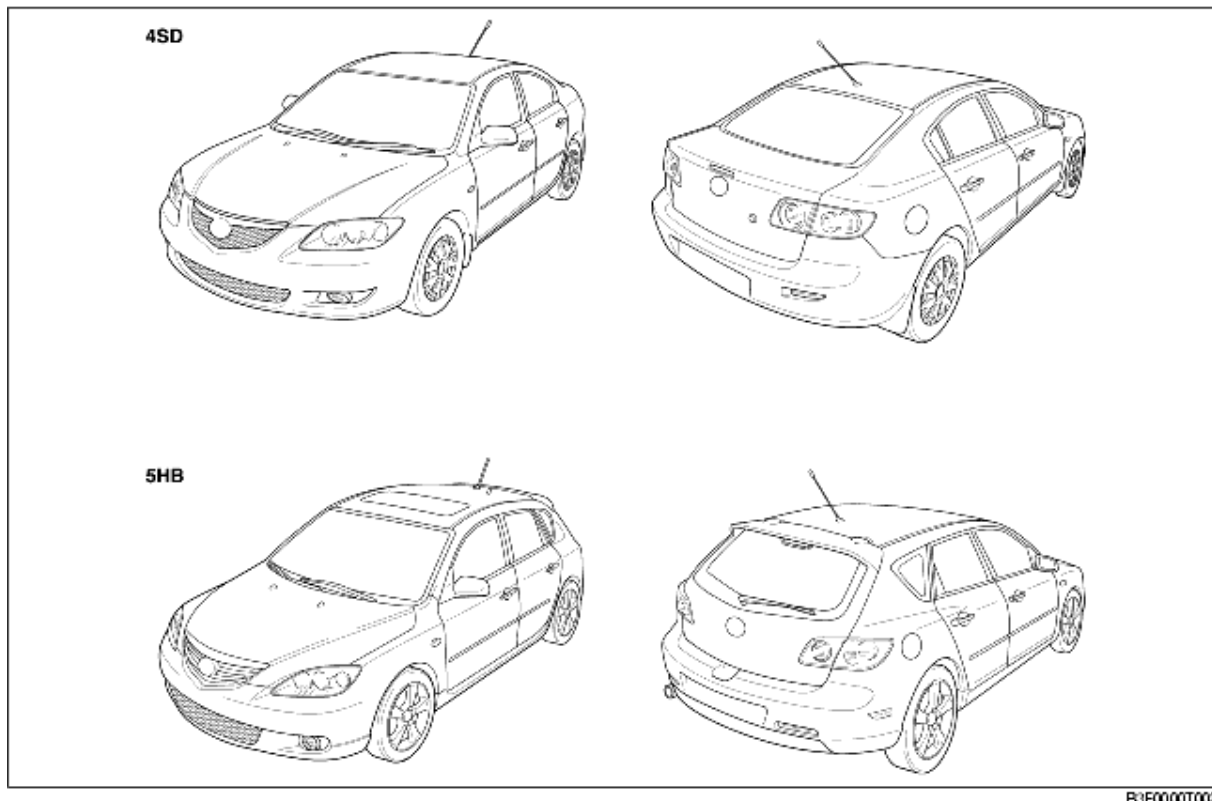
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Product Concept

A vehicle with eye-catching, always fresh and appealing styling, combined with dynamic performance

- A global C-segment vehicle with four key values: Unmistakable and vibrant design, interior cabin that fits four adults comfortably, high-quality craftsmanship, and a high-balance vehicle that is fun-to-drive

External View



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Vehicle Outline

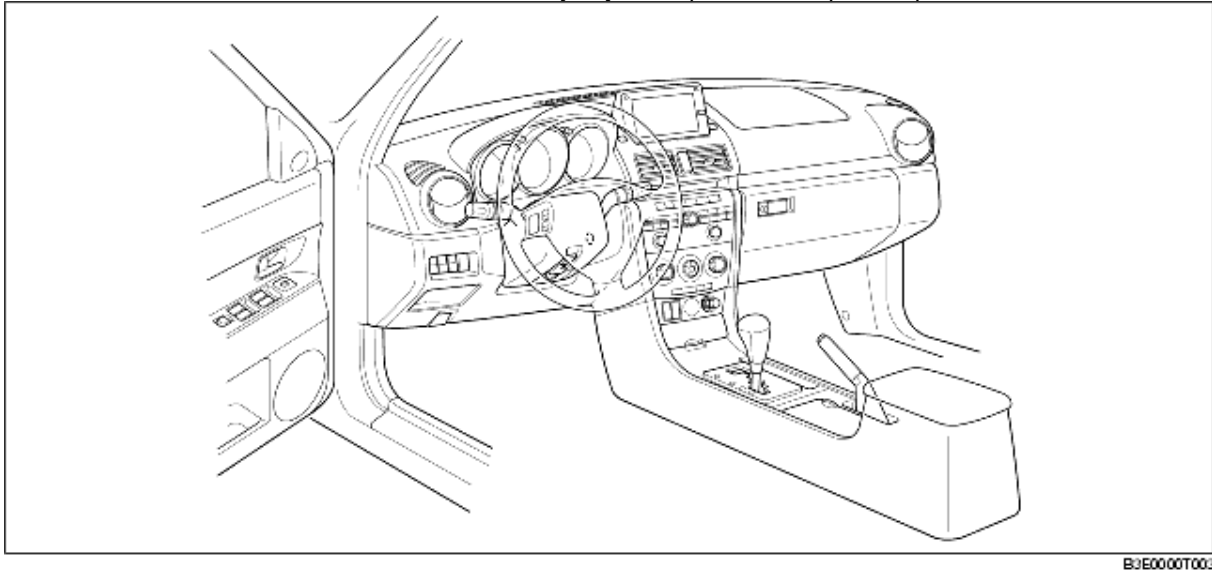
Exterior design

- Fun-to-drive with instinctively attractive styling
 - 4SD
 - Dynamic and elegant sport styling has been achieved due to the fused form of the bonnet and compact cabin.
 - 5HB
 - Advanced styling has been achieved due to the continuous form of the bonnet and body, and the flared fenders accentuating the body.

Interior design

- A comfortable interior and sporty design incorporating Mazda's inherited DNA
- A simple, clean-cut dashboard with a spacious feel has been adopted.
- A center panel that integrates module audio and air conditioning controls has been adopted.
- An instrument cluster with an emphasized sportiness has been adopted.
- Illumination that is both easily visible and comfortable for the eye has been adopted.

- Interior space that fits four adults comfortably
- An interior space that is surprisingly larger than thought when viewed from the exterior has been achieved due to the adoption of a long wheel base and elongated body.
- An auto-light system that allows for constant visibility of the vehicle's immediate surroundings has been adopted.
- A full-auto wiper system allowing the driver to concentrate in any weather condition due to the steering wheel-integrated control has been adopted. This system features a rain sensor on the windshield which determines the rainfall conditions and automatically adjusts wipers to the optimal speed.



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- Storage spaces that are spacious, simple and highly functional
- Front seat storage has been improved due to the adoption of a large glove compartment that can hold items such as a PET bottle or a small backpack, and featuring a lid that can hold a tissue box or other small item.
- A double-layered center-console box with an upper tray that can hold mobile telephones and other small-sized items has been adopted.
- Luggage space
- The luggage area size is class-topping in terms of area and features clean, nearly flat surfaces due to the under-floor positioning of the coil springs.
- 4SD
 - Double-link hinges for the trunk do not interfere with or damage luggage during loading/unloading.
- 5HB
 - A storage space is provided under the floor.
 - A flat luggage space is achieved by folding the split rear seat backs forward.
- Seat
- The driver's seat can be adjusted to the optimal position due to class-topping seat-height (55 mm) and slide (250 mm) adjustments.

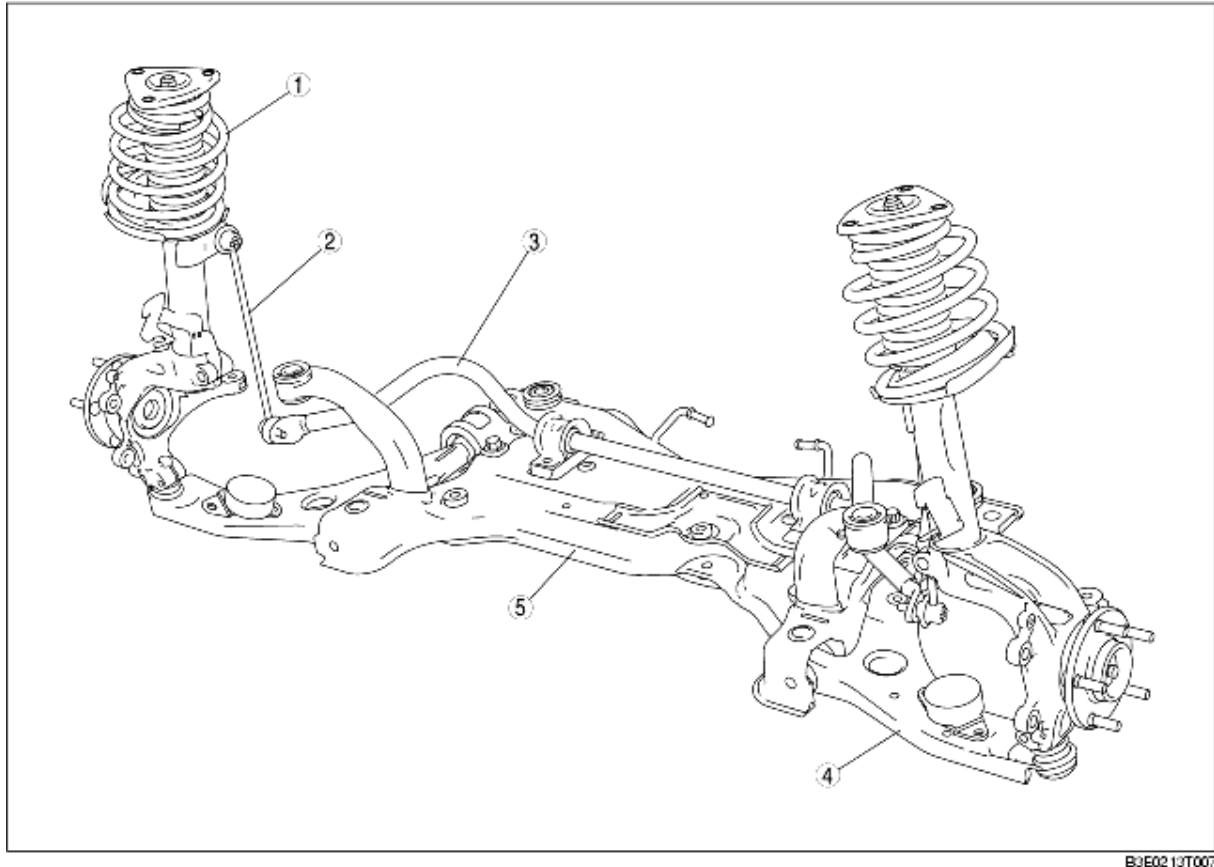
Engine

- Engine block
- Newly-developed Z6 (1.6 L) and LF (2.0 L) engines have been adopted.
- Variable valve timing that optimally adjusts valve timing in accordance with driving conditions has been adopted. (Z6 engine)
- An aluminum-alloy cylinder head and cylinder block have been adopted.
- A pendulum engine mount system has been adopted to reduce noise and vibration and simplify component parts.
- Lightweight pistons, low-tension piston rings, and shimless tappets have been adopted to minimize friction losses, thereby contributing to improved fuel economy.
- An auto-tensioner that automatically adjusts the belt to compensate for stretching has been adopted to minimize maintenance requirements.
- Intake, exhaust, control
- The exhaust manifold has been positioned towards the rear, improving exhaust effectiveness.
- Weight reduction has been achieved due to a hard-plastic intake manifold.
- Stable combustion when the engine is cold or lightly loaded along with cleaner exhaust emissions and high engine output have been obtained due to the adoption of a variable tumble system.
- High torque is obtained from the lower-middle to the high engine speed ranges due to the adoption of the variable intake air system.
- Maximum torque is achieved at all engine speeds due to the adoption of a variable valve timing system that controls intake valve timing in accordance with driving conditions to attain highly efficient air charging. (Z6 engine)

- An exhaust gas recirculation (EGR) system has been adopted for all models resulting in cleaner exhaust emissions and reduced fuel consumption.

Suspension and steering

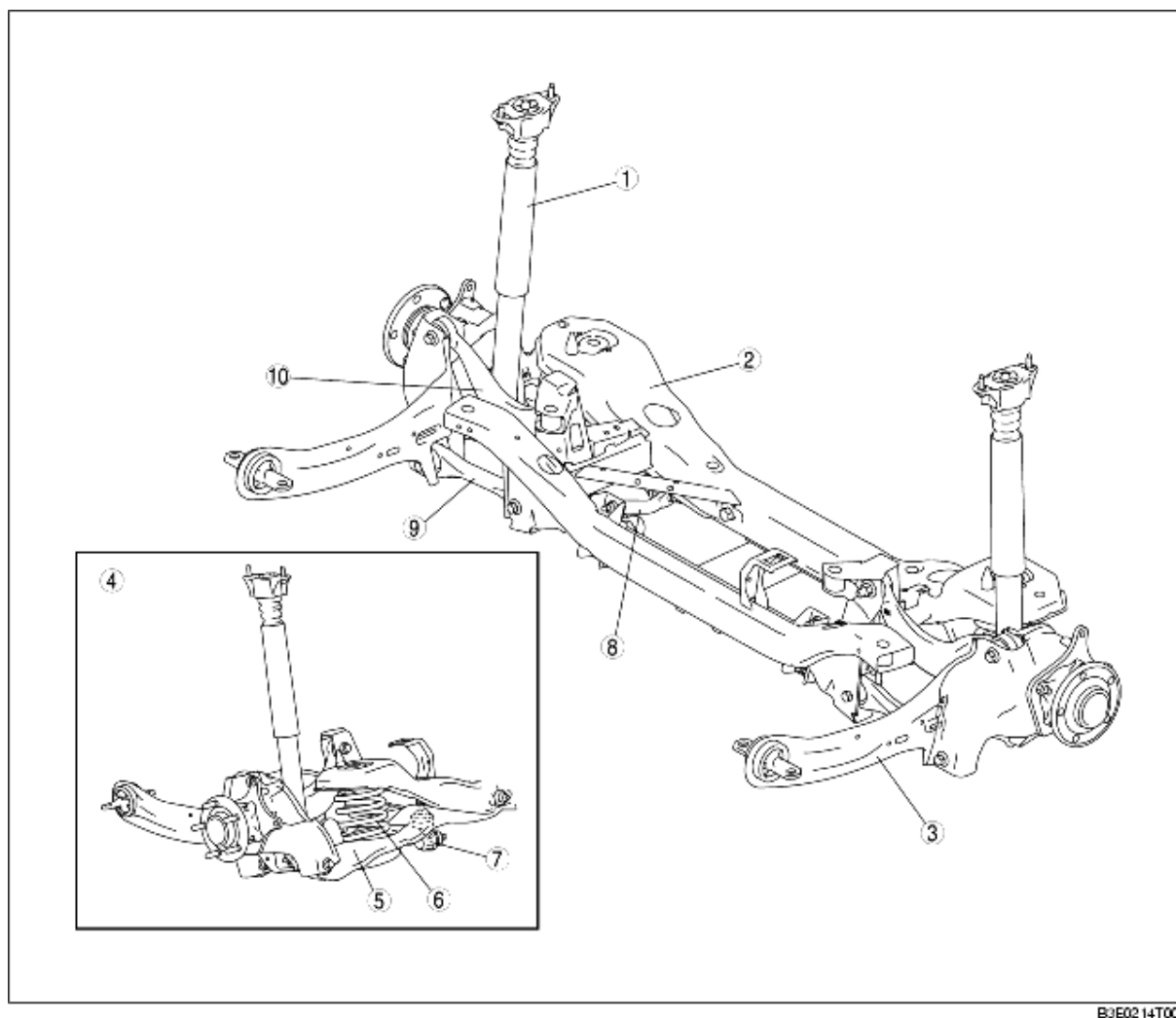
- Front suspension
 - Strut-type suspension has been adopted.
 - A liquid filled bushing has been adopted for the lower arm.
 - A separate input type shock absorber mount has been adopted, improving steering stability and riding comfort.



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1	Front shock absorber and coil spring
2	Front stabilizer control link
3	Front stabilizer
4	Front lower arm
5	Front crossmember

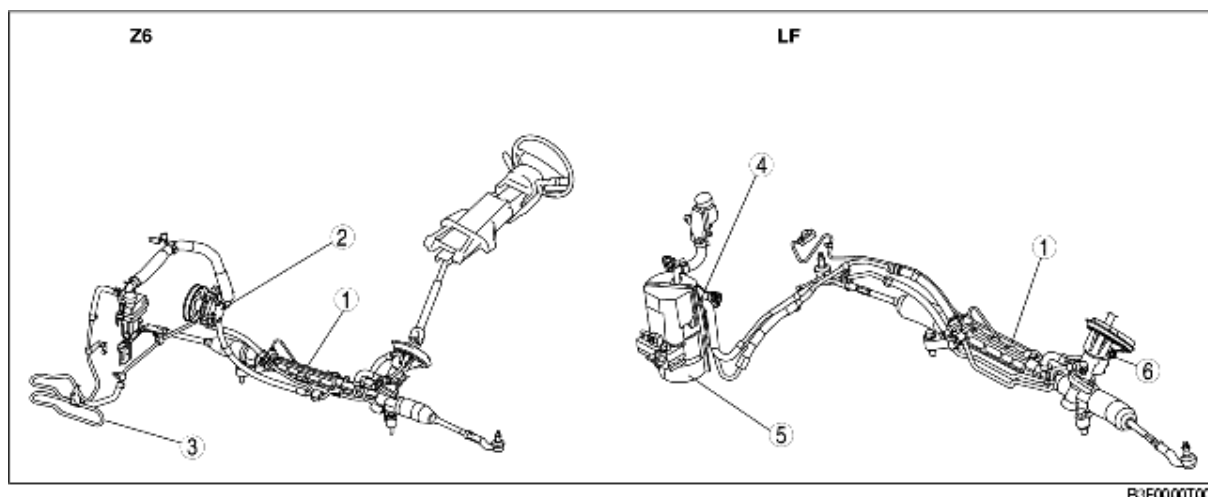
- Rear suspension
 - E-type multi-link rear suspension has been adopted.
 - A wide occupancy space has been attained due to the separated positioning of the shock absorber and coil spring.



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1	Rear shock absorber
2	Rear crossmember
3	Rear trailing link
4	Rear of the vehicle
5	Rear lower arm
6	Rear coil spring
7	Rear stabilizer control link
8	Rear stabilizer
9	Rear lateral link
10	Rear upper arm

- Power steering
- An electric-hydraulic power assist steering system has been adopted. (LF engine)

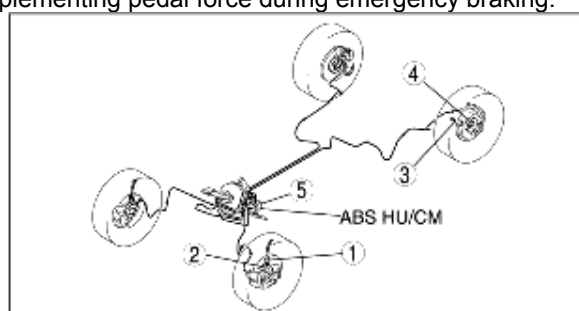


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1	Steering gear and linkage
2	Power steering oil pump
3	Cooling pipe
4	EHPAS control module (built into electric power steering oil pump)
5	Electric power steering oil pump
6	EHPAS angle sensor

Brake

- Linear, responsive braking function with an outstanding feeling of security and control characteristics
- Stability and steerability is maintained during braking control due to adoption of ABS for all models together with Electronic Brakeforce Distribution (EBD).
- A large-sized single diaphragm (10 inch) has been adopted, ensuring high brake functionality.
- An intrusion minimizing brake pedal has been adopted to suppress the rearward movement of the brake pedal during frontal collisions.
- A brake-assist function has been adopted to reduce the amount of pedal travel to a minimum by supplementing pedal force during emergency braking.



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1	Front ABS wheel-speed sensor
2	Front ABS sensor rotor
3	Rear ABS wheel-speed sensor
4	Rear ABS sensor rotor
5	Brake fluid pressure sensor

Transaxle

- Manual transaxle
- The F35M-R (Z6 engine) and the G35M-R manual (LF engine) transaxles have been adopted.
- Linked, double-cone synchronizers have been adopted for the first and second gears to reduce shift effort

during not only during fast but also slow operation and at cold temperatures.

- Carbon synchronizers have been adopted for third and fourth gears. (G35M-R manual transaxle)
- Automatic transaxle
- The FN4A-EL automatic transaxle with added manual mode function has been adopted to provide manual-feel type shifting.
- Slip control has been adopted, improving fuel economy and reducing CO.

Safety

- An immobilizer system has been adopted. This anti-theft device prevents the engine from being started unless the encrypted identification code, transmitted from a special electronic chip embedded in the key, corresponds with the identification code registered in the vehicle.
- Aerotwin wiper blades have been adopted for the windshield, improving visibility while driving.
- World-class collision protection is provided due to the lightweight and highly rigid Mazda Advanced Impact-energy Distribution and Absorption System body.
- Dual-inflator type air bags that control deployment of the air bags in two stages by detecting the scale of an impact have been adopted for front-seat passengers.
- Curtain air bags have been adopted that deploy and cover the front and rear side windows to protect the heads of front and rear passengers.
- Side air bags that effectively protect the chest area have been adopted for the front seats.
- Pre-tensioner and load limiter mechanisms have been adopted for the front seat belts.
- A steering column designed to collapse horizontally to minimize impact to the driver's head and chest has been adopted.
- An intrusion minimizing brake pedal has been adopted.
- Both ISOFIX and tether strap anchors are provided in the rear seat for child-seat fixing.