

# GENERAL INFORMATION

**00**  
SECTION

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GENERAL INFORMATION . . . 00-00

## 00-00 GENERAL INFORMATION

AIM OF DEVELOPMENT . . . . . 00-00-1  
VEHICLE IDENTIFICATION NUMBER  
(VIN) CODE . . . . . 00-00-9

VEHICLE IDENTIFICATION NUMBER  
(VIN) . . . . . 00-00-10  
UNITS . . . . . 00-00-10  
NEW STANDARD . . . . . 00-00-11

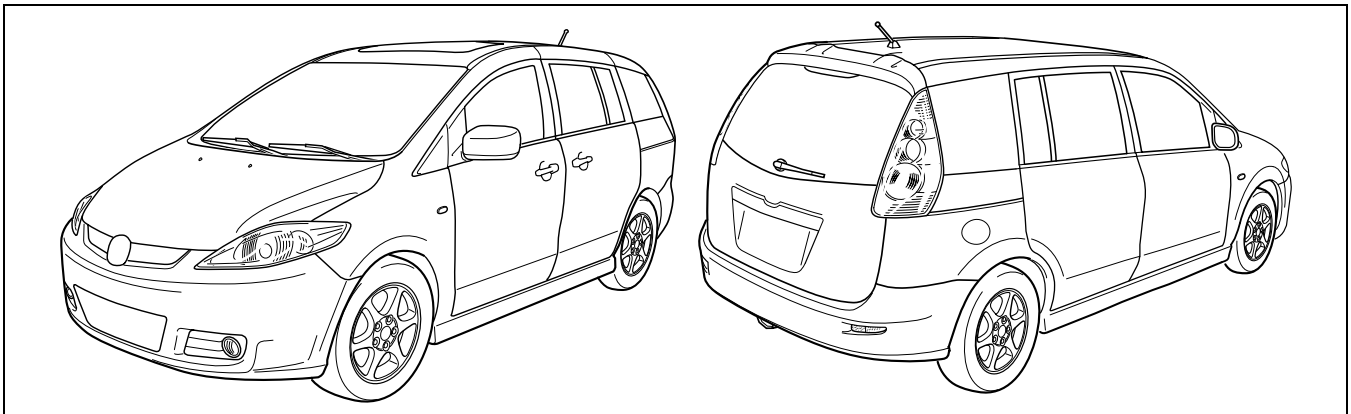
### AIM OF DEVELOPMENT

DPE00000000T04

#### Product concept

- **Communicative & Dynamic Space Wagon**
  - The new generation Space Wagon has achieved an optimal balance between 'Functionality/Communicativeness' and 'Driveability/Design'.
  - All occupants, not only the driver, can enjoy the functional space in full comfort.

#### External View



DPE000ZT1003

### Vehicle outline

#### Packaging

- '6 + One' packaging concept (Seven-seater specification vehicle)
  - The 6-passenger cabin affords ride comfort for each passenger, and the center open space provides plus-one functionality for enhanced passenger interaction.
  - 'Casual sensibility and convenient' functionality
- The best-in-class wheel base realizes advanced driving stability.
- Adoption of wide-open sliding doors on both sides.
  - Ingress/Egress improvement
- Adoption of seat sliding and double-folding functions
  - Achievement of optimum functionality for each seat

### Design theme

- Stylish & Clean

### Design image keywords

- Sweeping wedge shape
- Feeling of solid packaging
- Compactness

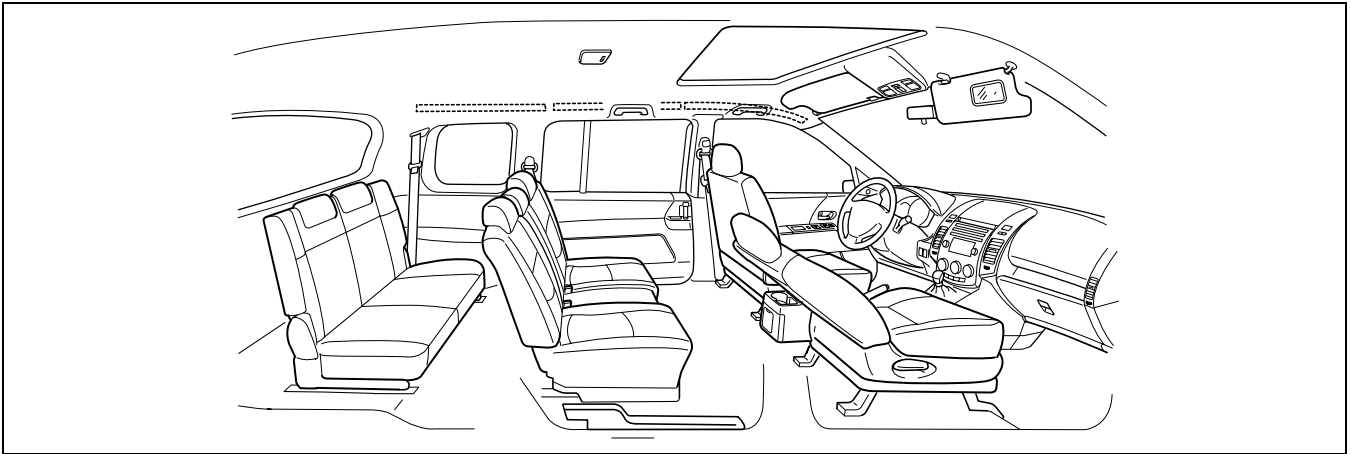
### Interior

- Achievement of a smooth dashboard surface
- The audio unit, climate control unit, and shift knob locations are integrated in the center panel to achieve a refined appearance.
- The adoption of ergonomic principles on many parts realizes excellent operability and a functional interior

00-00-1

## GENERAL INFORMATION

design.



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### Safety

- The adoption of the triple-H, strengthened frames on the floor, sides and roof areas provides enhanced protection.
- Injuries in a pedestrian-vehicle collision are minimized by the increased space between the hood and engine.
- Air bags have been adopted for the driver and passenger-side to soften the impact to the head and face of the front passengers.
- Side air bags that effectively protect the chest area have been adopted for the front seats.
- Large curtain air bags have been adopted that deploy and cover the front and rear side windows to protect the heads of the front and rear passengers.
- Pre-tensioner and load limiter mechanisms have been adopted for the front seat belts.
- Seat belt reminders have been adopted for the prevention of unfastened seat belts.
- Both ISO FIX and tether strap anchors are provided in the second and third-row seats for child-restraint securing.
- 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.
- Power windows with a safety auto-reverse mechanism have been adopted.

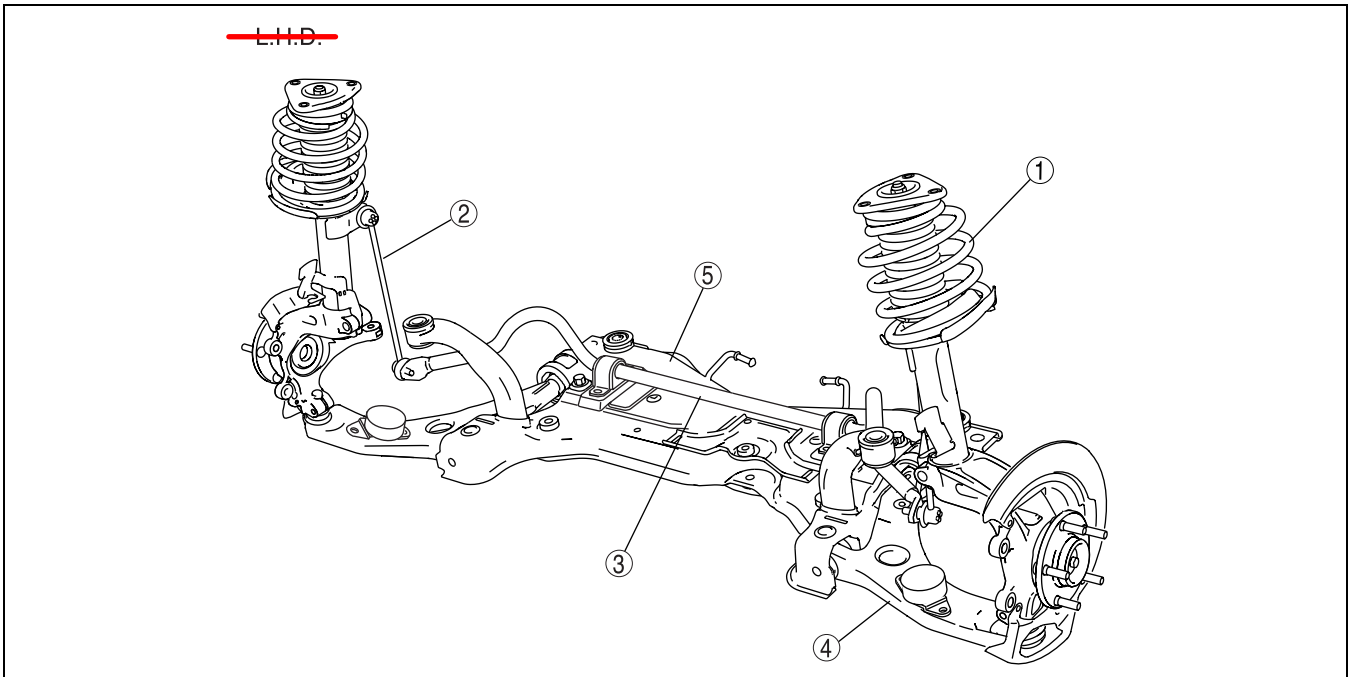
### Suspension

- Front suspension
  - Strut-type suspension adopted
  - A liquid-filled bushing for the lower arm adopted
  - A separated input type shock absorber mount has been adopted for improved steering stability and riding

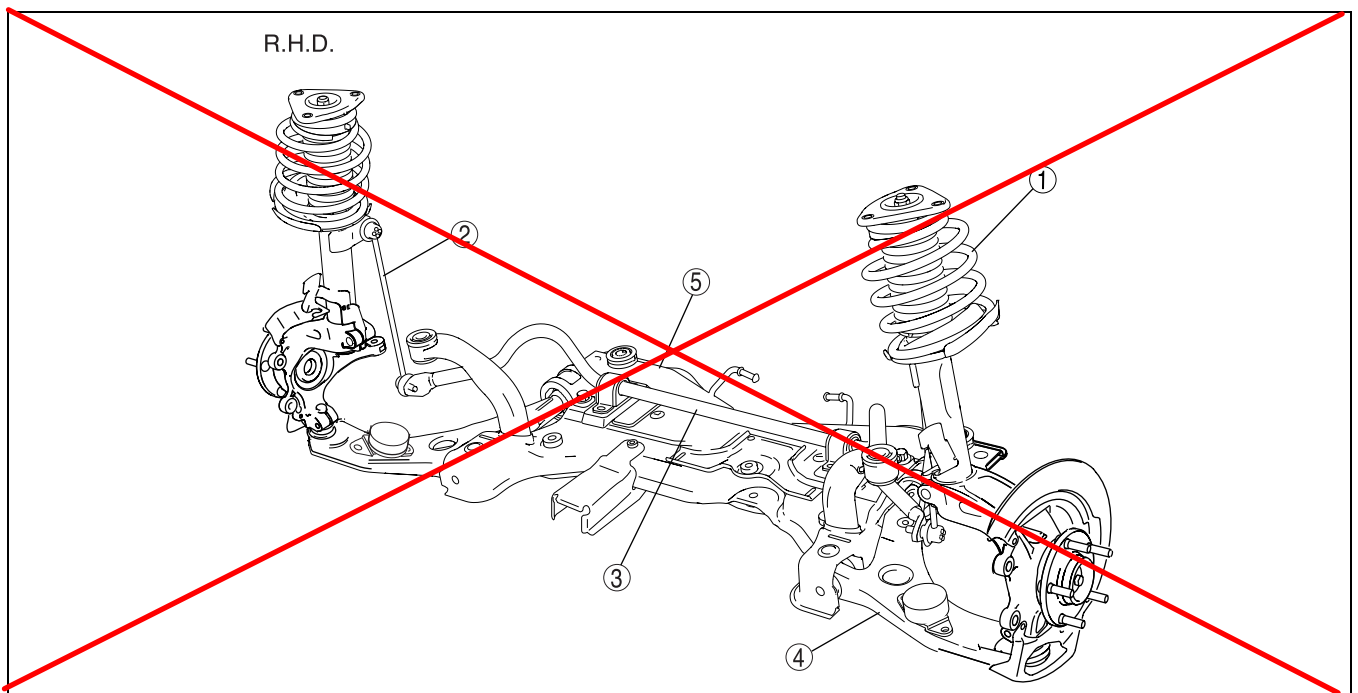
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comfort.

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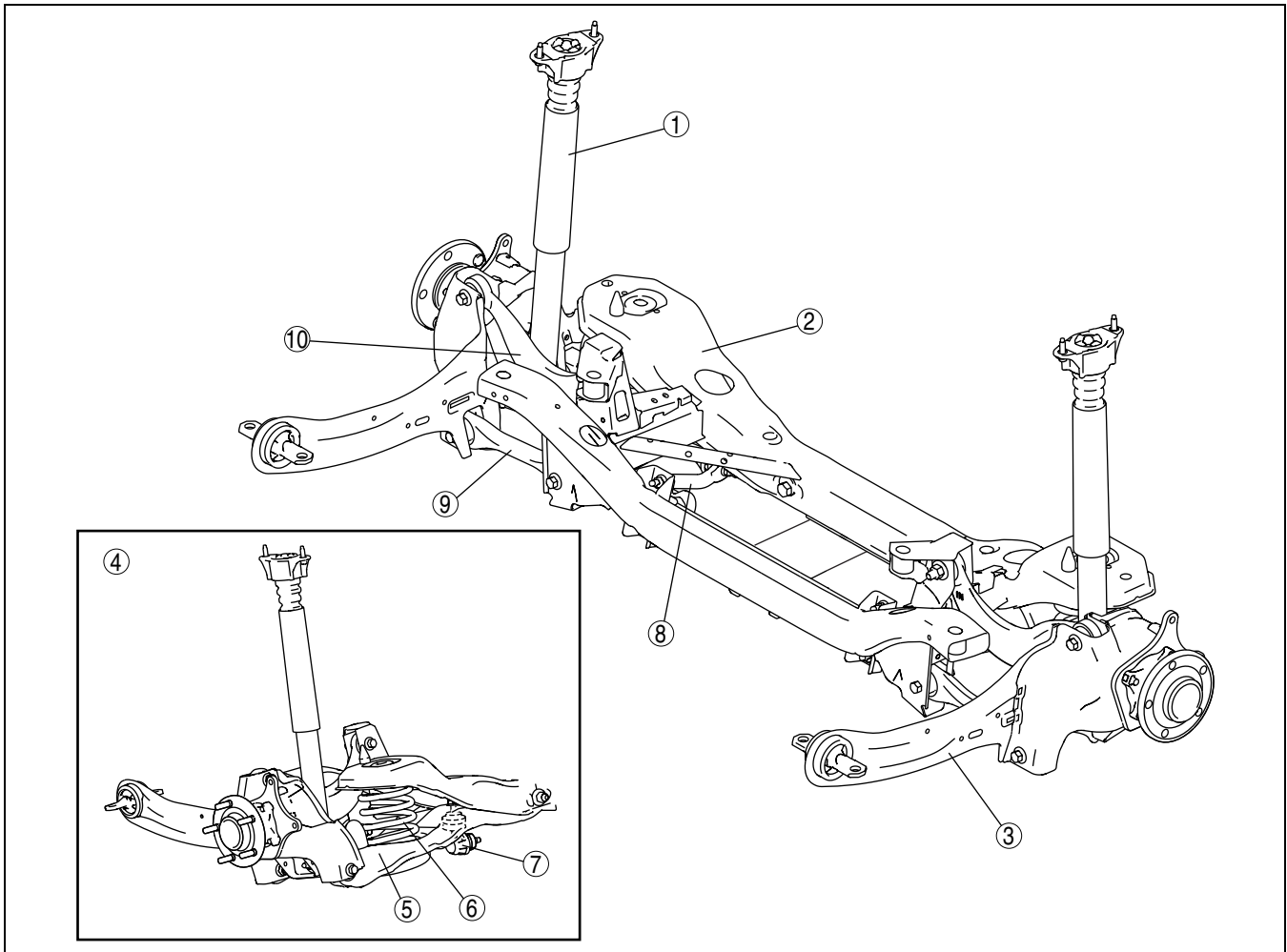
|   |                                      |
|---|--------------------------------------|
| 1 | Front shock absorber and coil spring |
| 2 | Front stabilizer control link        |
| 3 | Front stabilizer                     |

|   |                   |
|---|-------------------|
| 4 | Front lower arm   |
| 5 | Front crossmember |

- Rear suspension
  - An E-type multi-link rear suspension adopted
  - A wider occupancy space has been achieved due to the separated positioning of the shock absorber and

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coil spring.



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|   |                                   |
|---|-----------------------------------|
| 1 | Rear shock absorber               |
| 2 | Rear crossmember                  |
| 3 | Rear trailing link                |
| 4 | View from the 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               |

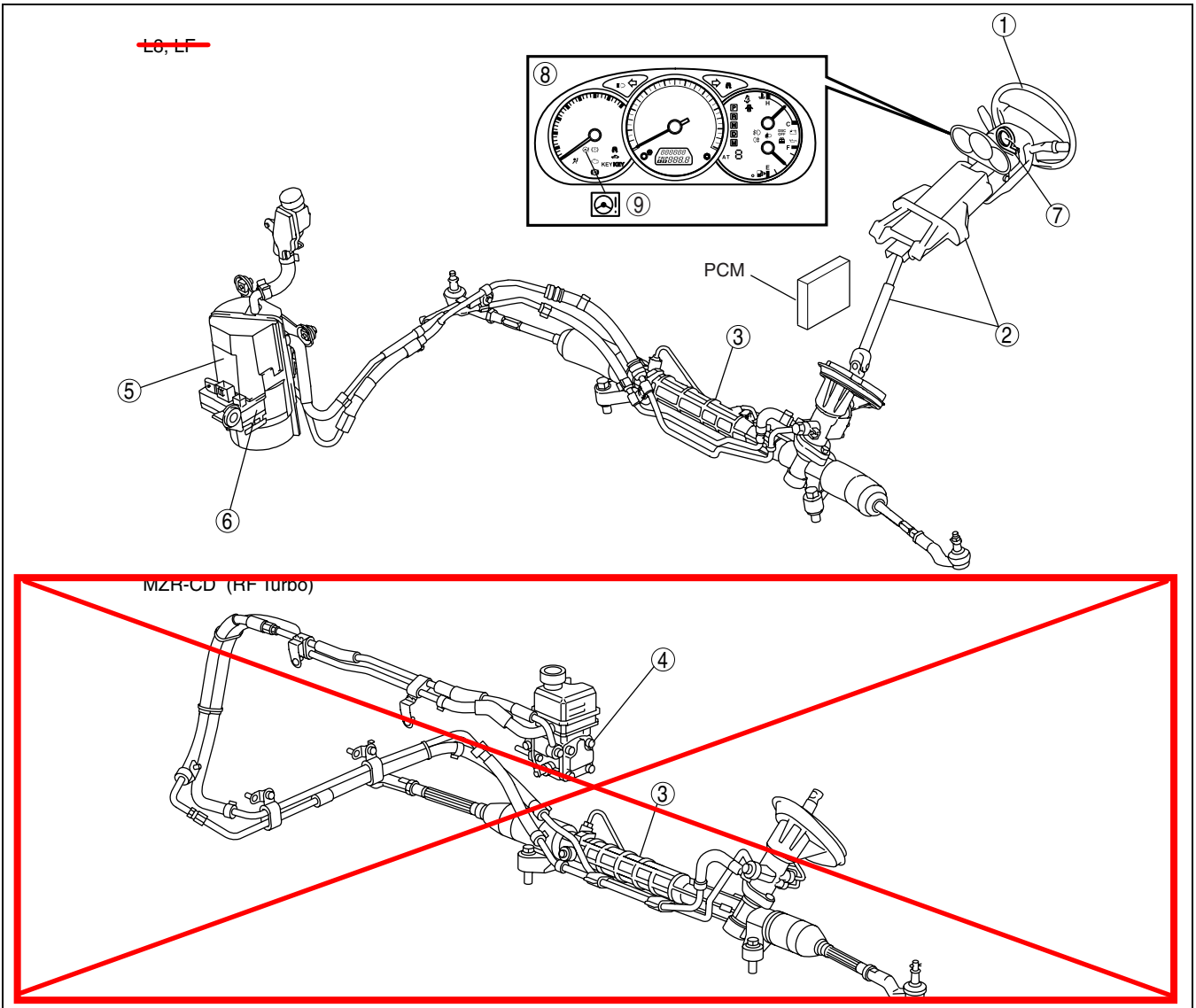
### Steering

- Power steering
  - Electro Hydraulic Power Assist Steering (EHPAS) adopted (~~LF, LF~~)
  - ~~Engine-speed-sensing power steering adopted (MZR-CD (RF-Turbo))~~

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~~L.H.D.~~

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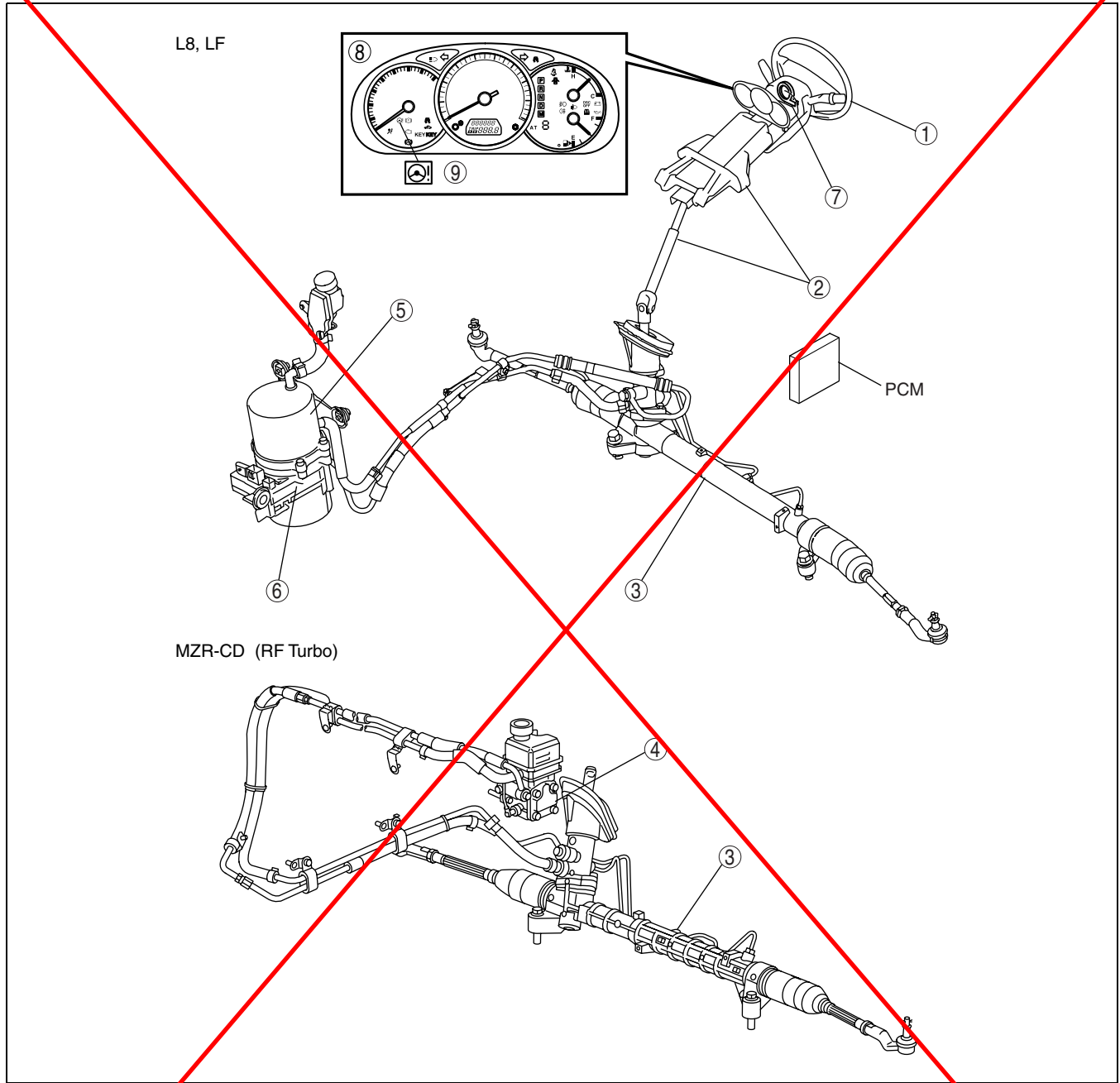


|              |                                    |
|--------------|------------------------------------|
| 1            | Steering wheel                     |
| 2            | Steering column and shaft          |
| 3            | Steering gear and linkage          |
| <del>4</del> | <del>Power steering oil pump</del> |
| 5            | Electric power steering oil pump   |

|   |  |
|---|--|
| 6 | EHPAS control module (built into electric power steering oil pump) |
| 7 | steering angle sensor  |
| 8 | Instrument cluster   |
| 9 | EHPAS warning light  |

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R.H.D.



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|   |                                  |
|---|----------------------------------|
| 1 | Steering wheel                   |
| 2 | Steering column and shaft        |
| 3 | Steering gear and linkage        |
| 4 | Power steering oil pump          |
| 5 | Electric power steering oil pump |

|   |  |
|---|--|
| 6 | EHPAS control module (built into electric power steering oil pump) |
| 7 | steering angle sensor  |
| 8 | Instrument cluster   |
| 9 | EHPAS warning light  |

## Engine

- The lightweight, aluminum alloy cylinder block and lower block provide superior vibration resistance. Superior crank support stiffness combined with lightweight pistons and connecting rods have been adopted for a comfortable, linear drive feel.
- Low-tension piston rings, and shimless tappets have been adopted to minimize friction losses and improve fuel economy.
- ~~The following improvements have been realized (MZR CD (RF Turbo)) due to the adoption of the common rail type fuel injection system.~~
- ~~Particulate matter (PM) reduction has been realized due to the extremely high pressure fuel injection~~

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~~system~~

- ~~— NOx and PM reduction have been realized due to an optimized combustion condition and enhanced flexibility in injection volume, timing, and pulse~~
- ~~• A diesel particulate filter system (MZR-CD (RF Turbo)) has been adopted to remove particulate matter (PM) in the exhaust gas.~~

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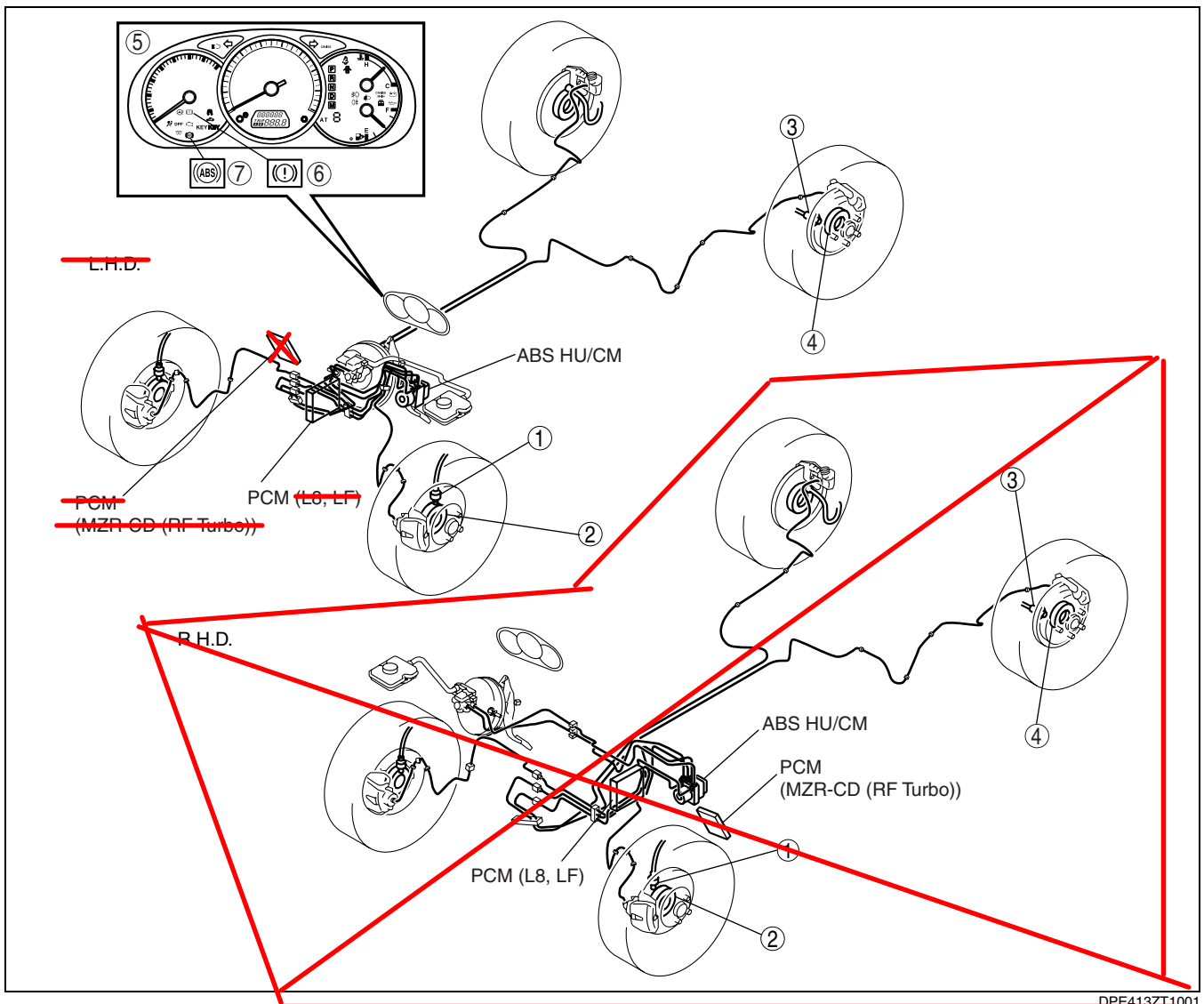
### Automatic transmission

- A slope-control function saves the driver from having to make frequent use of the brake pedal on slopes, providing the driver a feeling of smooth shift control.
- A higher 4th gear ratio promotes fuel economy during high-speed cruising.
- An expanded lockup range covers lower vehicle speeds. A control function adds lockup during deceleration that contributes to improved fuel economy and reduced CO<sub>2</sub> emissions.

### Brakes

- Lever-type parking brake adopted
- Brake assist system provides enhanced brake force based on light braking effort.
- Linear, responsive braking function with an outstanding feeling of security and control characteristics.
  - Stability and steerability is maintained during braking control due to the adoption of ABS or DSC 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, which minimizes the amount of rearward pedal thrust in a frontal collision, has been adopted.
  - A brake-assist function has been adopted to supplement pedal braking force and reduce speed in a shorter distance during emergency braking.

### ABS STRUCTURAL VIEW

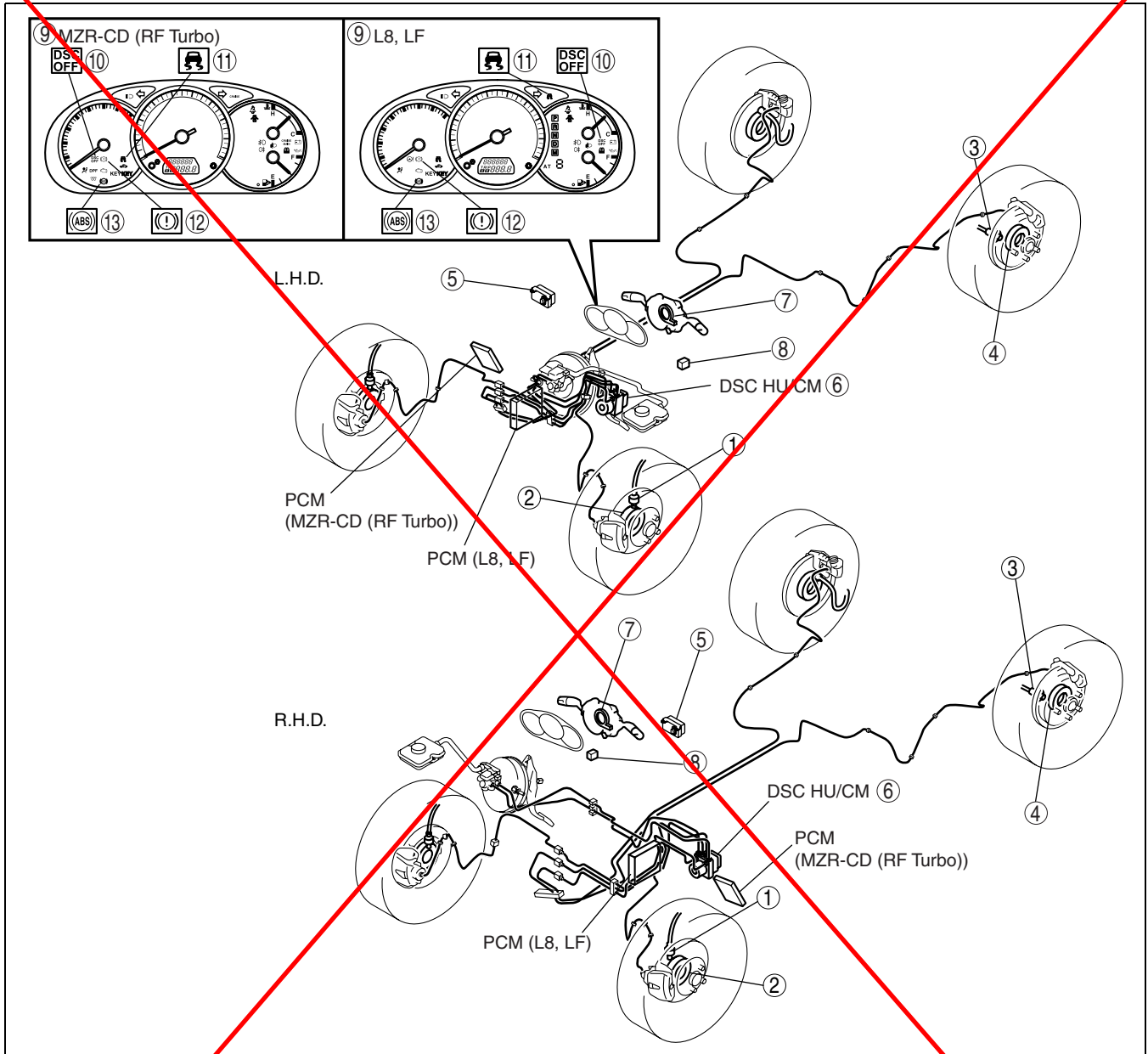


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|   |                              |
|---|------------------------------|
| 1 | Front ABS wheel-speed sensor |
| 2 | Front ABS sensor rotor       |
| 3 | Rear ABS wheel-speed sensor  |
| 4 | Rear ABS sensor rotor        |

|   |                            |
|---|----------------------------|
| 5 | Instrument cluster         |
| 6 | Brake system warning light |
| 7 | ABS warning light          |

### DYNAMIC STABILITY CONTROL (DSC) STRUCTURAL VIEW



DPE415ZT1001

|   |  |
|---|--|
| 1 | Front ABS wheel-speed sensor                       |
| 2 | Front ABS sensor rotor                             |
| 3 | Rear ABS wheel-speed sensor                        |
| 4 | Rear ABS sensor rotor                              |
| 5 | Combined sensor                                    |
| 6 | Brake fluid pressure sensor (Built into DSC HU/CM) |
| 7 | Steering angle sensor                              |

|    |                            |
|----|----------------------------|
| 8  | DSC OFF switch             |
| 9  | Instrument cluster         |
| 10 | DSC OFF light              |
| 11 | DSC indicator light        |
| 12 | Brake system warning light |
| 13 | ABS warning light          |

#### Equipment for enhanced comfort

- Left/right sliding doors
  - Auto closure



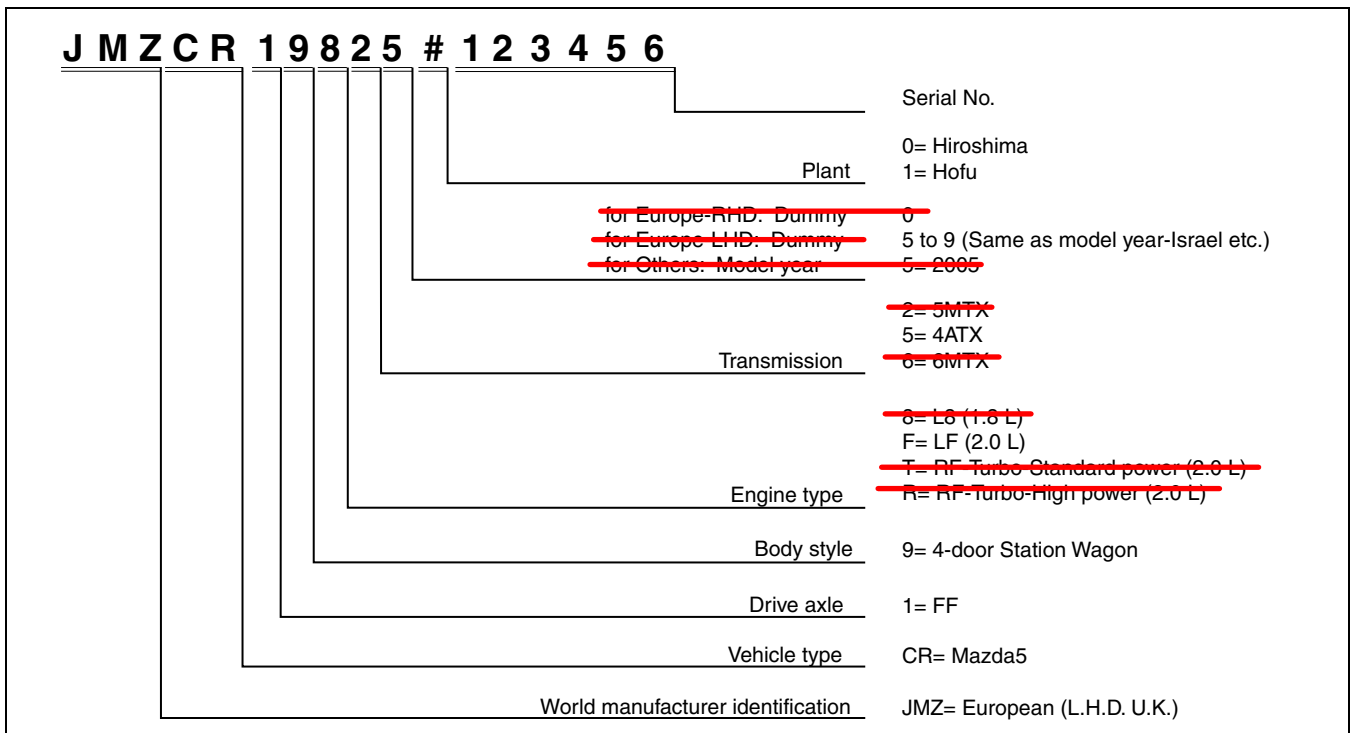
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- The electrically operated sliding doors can also be opened and closed using the advanced key or keyless-entry transmitter.
- Driver support system
  - The 'Back monitor system with predicted vehicle track display' system, with front and rear-mounted CCD cameras, displays the line the vehicle will follow as calculated from the steering-wheel angle.
- Audio system
  - The 20 GB built-in hard disc drive audio also provides remote operation using the wireless remote controller.
- Rear seat entertainment system
  - Remote operation using the wireless remote controller is possible for the retractable 7-inch LCD and DVD mounted on the ceiling, and TV reception.
- Advanced Keyless Entry and Start Up System
  - Doors are locked/unlocked and the engine is started/stopped without the use of a conventional key.
- KARAKURI storage box
  - Storage space is provided with storage boxes under the seat bottoms of the second row seats.

### VEHICLE IDENTIFICATION NUMBER (VIN) CODE

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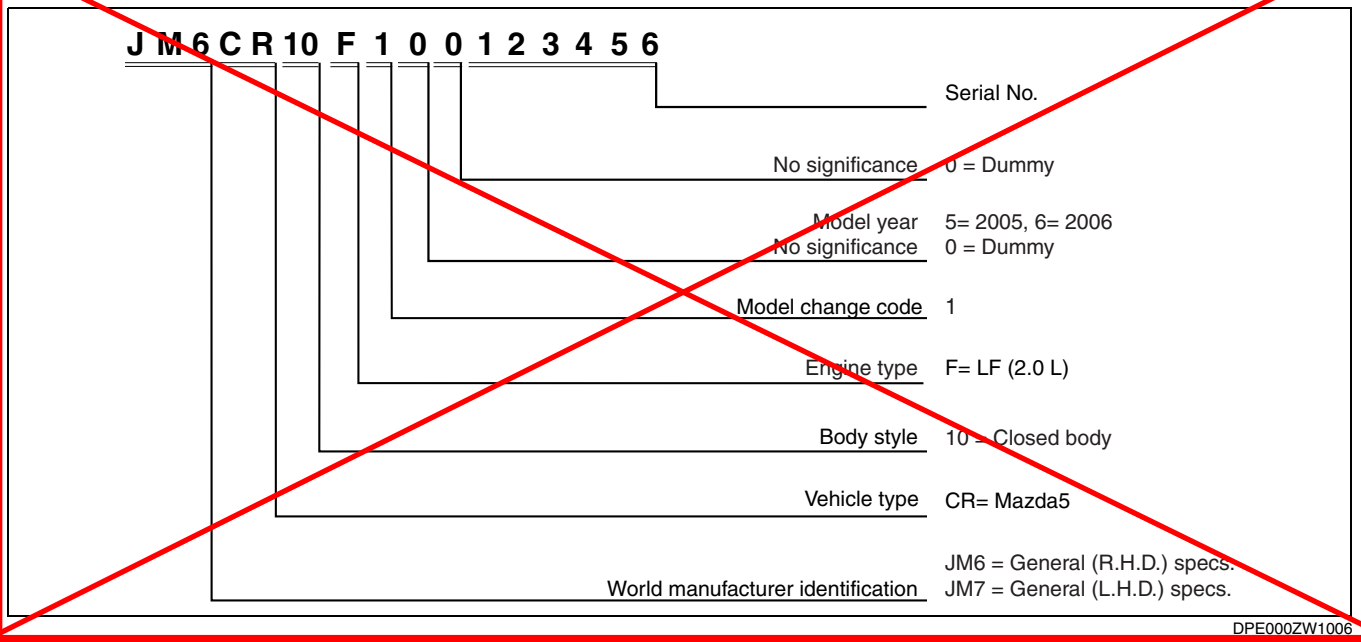
~~European (L.H.D. U.K.) specs.~~



DPE000ZW1005

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### General (L.H.D R.H.D) specs.



### VEHICLE IDENTIFICATION NUMBER (VIN)

DPE00000000T05

#### ~~European (L.H.D) specs.~~

~~JMZ CR1982\*# 100001~~

~~JMZ CR19F2\*# 100001~~

JMZ CR19F5\*# 100001—

~~JMZ CR19R6\*# 100001~~

~~JMZ CR19T6\*# 100001—~~

#### ~~J.K. specs.~~

~~JMZ CR19820# 100001—~~

~~JMZ CR19F20# 100001—~~

~~JMZ CR19R60# 100001—~~

~~JMZ CR19T60# 100001—~~

#### ~~General (L.H.D) specs.~~

~~JM7 CR10F1\*0 100001—~~

~~JM7 CR10F100 100001—~~

#### ~~General (R.H.D) specs.~~

~~JM6 CR10F100 100001—~~

### UNITS

DPE00000000T02

|                     |  |
|---------------------|--|
| Electrical current  | A (ampere)   |
| Electric power      | W (watt)   |
| Electric resistance | ohm  |
| Electric voltage    | V (volt)   |
| Length              | mm (millimeter)  |
|                     | in (inch)  |
| Negative pressure   | kPa (kilo pascal)  |
|                     | mmHg (millimeters of mercury)                              |
|                     | inHg (inches of mercury)                                   |
| Positive pressure   | kPa (kilo pascal)  |
|                     | kgf/cm <sup>2</sup> (kilogram force per square centimeter) |
|                     | psi (pounds per square inch)                               |

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|        |                                    |
|--------|------------------------------------|
| Torque | N-m (Newton meter)                 |
|        | kgf-m (kilogram force meter)       |
|        | kgf-cm (kilogram force centimeter) |
|        | ft-lbf (foot pound force)          |
|        | in-lbf (inch pound force)          |
| Volume | L (liter)                          |
|        | US qt (U.S. quart)                 |
|        | Imp qt (Imperial quart)            |
|        | ml (milliliter)                    |
|        | cc (cubic centimeter)              |
|        | cu in (cubic inch)                 |
|        | fl oz (fluid ounce)                |
| Weight | g (gram)                           |
|        | oz (ounce)                         |

### Conversion to SI Units (Système International d'Unités)

- All numerical values in this manual are based on SI units. Numbers shown in conventional units are converted from these values.

### Rounding Off

- Converted values are rounded off to the same number of places as the SI unit value. For example, if the SI unit value is 17.2 and the value after conversion is 37.84, the converted value will be rounded off to 37.8.

### Upper and Lower Limits

- When the data indicates upper and lower limits, the converted values are rounded down if the SI unit value is an upper limit and rounded up if the SI unit value is a lower limit. Therefore, converted values for the same SI unit value may differ after conversion. For example, consider 2.7 kgf/cm<sup>2</sup> in the following specifications:

**210—260 kPa {2.1—2.7 kgf/cm<sup>2</sup>, 30—38 psi}**  
**270—310 kPa {2.7—3.2 kgf/cm<sup>2</sup>, 39—45 psi}**

- The actual converted values for 2.7 kgf/cm<sup>2</sup> are 265 kPa and 38.4 psi. In the first specification, 2.7 is used as an upper limit, so the converted values are rounded down to 260 and 38. In the second specification, 2.7 is used as a lower limit, so the converted values are rounded up to 270 and 39.

### NEW STANDARD

DPE00000000T03

- Following is a comparison of the previous standard and the new standard.

| New Standard |                                  | Previous Standard |                                      | Remark |
|--------------|----------------------------------|-------------------|--------------------------------------|--------|
| Abbreviation | Name                             | Abbreviation      | Name                                 |        |
| AP           | Accelerator Pedal                | —                 | Accelerator Pedal                    |        |
| APP          | Accelerator Pedal Position       | —                 | Accelerator Pedal Position           |        |
| ACL          | Air Cleaner                      | —                 | Air Cleaner                          |        |
| A/C          | Air Conditioning                 | —                 | Air Conditioning                     |        |
| BARO         | Barometric Pressure              | —                 | Atmospheric Pressure                 |        |
| B+           | Battery Positive Voltage         | V <sub>B</sub>    | Battery Voltage                      |        |
| —            | Brake Switch                     | —                 | Stoplight Switch                     |        |
| —            | Calibration Resistor             | —                 | Corrected Resistance                 | #6     |
| CMP sensor   | Camshaft Position Sensor         | —                 | Crank Angle Sensor                   |        |
| LOAD         | Calculated Load Voltage          | —                 | —                                    |        |
| CAC          | Charge Air Cooler                | —                 | Intercooler                          |        |
| CLS          | Closed Loop System               | —                 | Feedback System                      |        |
| CTP          | Closed Throttle Position         | —                 | Fully Closed                         |        |
| CPP          | Clutch Pedal Position            | —                 | Clutch Position                      |        |
| CIS          | Continuous Fuel Injection System | EGL               | Electronic Gasoline Injection System |        |
| CS sensor    | Control Sleeve Sensor            | CSP sensor        | Control Sleeve Position Sensor       | #6     |
| CKP sensor   | Crankshaft Position Sensor       | —                 | Crank Angle Sensor 2                 |        |
| DLC          | Data Link Connector              | —                 | Diagnosis Connector                  |        |
| DTM          | Diagnostic Test Mode             | —                 | Test Mode                            | #1     |

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| New Standard |                                      | Previous Standard |                                | Remark                  |
|--------------|--------------------------------------|-------------------|--------------------------------|-------------------------|
| Abbreviation | Name                                 | Abbreviation      | Name                           |                         |
| DTC          | Diagnostic Trouble Code(s)           | —                 | Service Code(s)                |                         |
| DI           | Distributor Ignition                 | —                 | Spark Ignition                 |                         |
| DLI          | Distributorless Ignition             | —                 | Direct Ignition                |                         |
| EI           | Electronic Ignition                  | —                 | Electronic Spark Ignition      | #2                      |
| ECT          | Engine Coolant Temperature           | —                 | Water Thermo                   |                         |
| EM           | Engine Modification                  | —                 | Engine Modification            |                         |
| —            | Engine Speed Input Signal            | —                 | Engine RPM Signal              |                         |
| EVAP         | Evaporative Emission                 | —                 | Evaporative Emission           |                         |
| EGR          | Exhaust Gas Recirculation            | —                 | Exhaust Gas Recirculation      |                         |
| FC           | Fan Control                          | —                 | Fan Control                    |                         |
| FF           | Flexible Fuel                        | —                 | Flexible Fuel                  |                         |
| 4GR          | Fourth Gear                          | —                 | Overdrive                      |                         |
| —            | Fuel Pump Relay                      | —                 | Circuit Opening Relay          | #3                      |
| FSO solenoid | Fuel Shut Off Solenoid               | FCV               | Fuel Cut Valve                 | #6                      |
| GEN          | Generator                            | —                 | Alternator                     |                         |
| GND          | Ground                               | —                 | Ground/Earth                   |                         |
| HO2S         | Heated Oxygen Sensor                 | —                 | Oxygen Sensor                  | With heater             |
| IAC          | Idle Air Control                     | —                 | Idle Speed Control             |                         |
| —            | IDM Relay                            | —                 | Spill Valve Relay              | #6                      |
| —            | Incorrect Gear Ratio                 | —                 | —                              |                         |
| —            | Injection Pump                       | FIP               | Fuel Injection Pump            | #6                      |
| —            | Input/Turbine Speed Sensor           | —                 | Pulse Generator                |                         |
| IAT          | Intake Air Temperature               | —                 | Intake Air Thermo              |                         |
| KS           | Knock Sensor                         | —                 | Knock Sensor                   |                         |
| MIL          | Malfunction Indicator Lamp           | —                 | Malfunction Indicator Light    |                         |
| MAP          | Manifold Absolute Pressure           | —                 | Intake Air Pressure            |                         |
| MAF          | Mass Air Flow                        | —                 | Mass Air Flow                  |                         |
| MAF sensor   | Mass Air Flow Sensor                 | —                 | Airflow Sensor                 |                         |
| MFL          | Multipoint Fuel Injection            | —                 | Multipoint Fuel Injection      |                         |
| OBD          | On-Board Diagnostic                  | —                 | Diagnosis/Self Diagnosis       |                         |
| OL           | Open Loop                            | —                 | Open Loop                      |                         |
| —            | Output Speed Sensor                  | —                 | Vehicle Speed Sensor 1         |                         |
| OC           | Oxidation Catalytic Converter        | —                 | Catalytic Converter            |                         |
| O2S          | Oxygen Sensor                        | —                 | Oxygen Sensor                  |                         |
| PNP          | Park/Neutral Position                | —                 | Park/Neutral Range             |                         |
| PID          | Parameter Identification             | —                 | Parameter Identification       |                         |
| —            | PCM Control Relay                    | —                 | Main Relay                     | #6                      |
| PSP          | Power Steering Pressure              | —                 | Power Steering Pressure        |                         |
| PCM          | Powertrain Control Module            | ECU               | Engine Control Unit            | #4                      |
| —            | Pressure Control Solenoid            | —                 | Line Pressure Solenoid Valve   |                         |
| PAIR         | Pulsed Secondary Air Injection       | —                 | Secondary Air Injection System | Pulsed injection        |
| —            | Pump Speed Sensor                    | —                 | NE Sensor                      | #6                      |
| AIR          | Secondary Air Injection              | —                 | Secondary Air Injection System | Injection with air pump |
| SAPV         | Secondary Air Pulse Valve            | —                 | Reed Valve                     |                         |
| SFI          | Sequential Multipoint Fuel Injection | —                 | Sequential Fuel Injection      |                         |
| —            | Shift Solenoid A                     | —                 | 1-2 Shift Solenoid Valve       |                         |
| —            |                                      | —                 | Shift A Solenoid Valve         |                         |
| —            | Shift Solenoid B                     | —                 | 2-3 Shift Solenoid Valve       |                         |
| —            |                                      | —                 | Shift B Solenoid Valve         |                         |
| —            | Shift Solenoid C                     | —                 | 3-4 Shift Solenoid Valve       |                         |

## GENERAL INFORMATION

| New Standard |   | Previous Standard |                      | Remark |
|--------------|---|-------------------|----------------------|--------|
| Abbreviation | Name  | Abbreviation      | Name                 |        |
| 3GR          | Third Gear  | —                 | 3rd Gear             |        |
| TWC          | Three Way Catalytic Converter                     | —                 | Catalytic Converter  |        |
| TB           | Throttle Body                                     | —                 | Throttle Body        |        |
| TP           | Throttle Position                                 | —                 | —                    |        |
| TP sensor    | Throttle Position Sensor                          | —                 | Throttle Sensor      |        |
| TCV          | Timer Control Valve                               | TCV               | Timing Control Valve | #6     |
| TCC          | Torque Converter Clutch                           | —                 | Lockup Position      |        |
| TCM          | Transmission (Transaxle) Control Module           | —                 | EC-AT Control Unit   |        |
| —            | Transmission (Transaxle) Fluid Temperature Sensor | —                 | ATF Thermosensor     |        |
| TR           | Transmission (Transaxle) Range                    | —                 | Inhibitor Position   |        |
| TC           | Turbocharger                                      | —                 | Turbocharger         |        |
| VSS          | Vehicle Speed Sensor                              | —                 | Vehicle Speed Sensor |        |
| VR           | Voltage Regulator                                 | —                 | IC Regulator         |        |
| VAF sensor   | Volume Air Flow Sensor                            | —                 | Air flow Sensor      |        |
| WUTWC        | Warm Up Three Way Catalytic Converter             | —                 | Catalytic Converter  | #5     |
| WOT          | Wide Open Throttle                                | —                 | Fully Open           |        |

#1: Diagnostic trouble codes depend on the diagnostic test mode

#2: Controlled by the PCM

#3: In some models, there is a fuel pump relay that controls pump speed. That relay is now called the fuel pump relay (speed).

#4: Device that controls engine and powertrain

#5: Directly connected to exhaust manifold

#6: Part name of diesel engine