**e•4WD System**

The e•4WD system was developed with the aim of providing 4WD capability for enhanced ease of use in daily driving situations combined with environmental friendliness. This system facilitates smooth driving performance, thanks in particular to its outstanding start-off acceleration and hill-climbing capability on icy road surfaces, which require the greatest attention by drivers during daily driving in cold-weather regions. Additionally, the system allows a more spacious roominess and lower fuel consumption than conventional 4WD systems. Another notable feature with respect to vehicle design and manufacturing is its excellent platform efficiency, by enabling 4WD to be achieved through minimal changes to a 2WD base vehicle.

An intelligent 4WD system that selects the optimum drive mode matching the driving conditions

The e•4WD system consists of a rear-wheel drive unit comprising a motor, clutch and reduction gear, an engine-driven generator used exclusively as the power source for driving the motor, and a 4WD control unit.

### Operating modes of the e•4WD system

<table>
<thead>
<tr>
<th>Mode</th>
<th>Functional explanation</th>
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</table>
| **4WD** | When starting and when the front wheels begin to slip:  
(1) The clutch is engaged.  
(2) The generator produces power.  
(3) The motor is driven to produce driving force at the rear wheels.  
* The traction control function operates continuously. |
| **2WD** | With the clutch disengaged, the motor is stopped and the rear wheels are driven wheels.  
* The traction control function does not operate. |

### Operating modes

<table>
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</table>
| **4WD** | In 4WD mode  
4WD Nissan March  
Luggage space |
| **2WD** | In 2WD mode  
2WD Nissan March  
Luggage space |

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1. The clutch is engaged.
2. The generator produces power.
3. The motor is driven to produce driving force at the rear wheels.

* The traction control function operates continuously.

Disengaging the electromagnetic clutch incorporated in the rear-wheel drive unit reduces friction to improve fuel economy. Drivers can also select the 2WD mode by a dashboard switch.

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| **4WD** | Outward start-off acceleration and driving stability on snowy and icy road surfaces  
4WD control without any time lag and traction control capabilities at both the front and rear wheels ensure that traction and the torque split to the rear wheels are optimally controlled.  
There is little wheel slipping or skidding even on icy or snowy roads, enabling the vehicle to accelerate and travel with remarkable smoothness and stability. |
| **2WD** | Large, unobstructed legroom and luggage space  
There is no propeller shaft and transfer case for transferring driving force to the rear wheels, and the 4WD system itself has also been downsized.  
This allows a low floor height for achieving interior roominess equal to that of a 2WD vehicle.  
Improved fuel economy |

The floor tunnel is about 10-30 mm lower in height than that of conventional 4WD vehicles.