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1996 NISSAN Primera Hatchback OEM Service and Repair Workshop Manual

Go to manual page

Warning / Indicator / Chime List

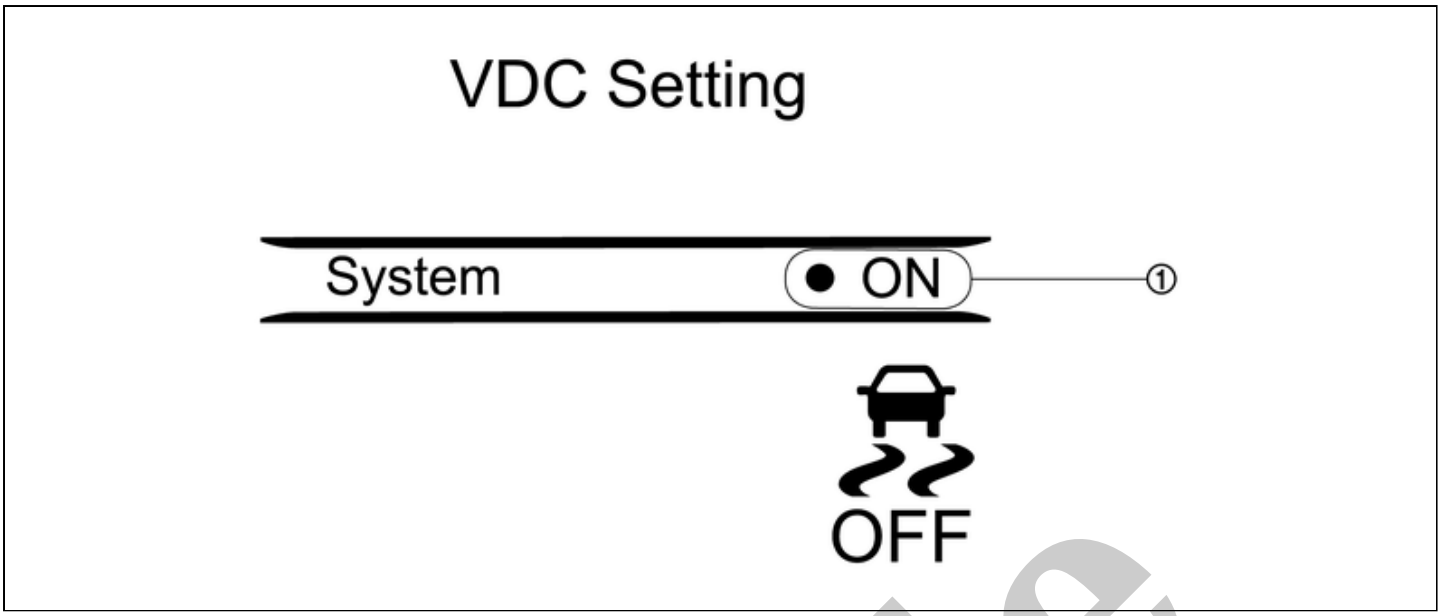
SIEMD-7262723

FOR USA

Name	Design	Layout/Function
ABS warning lamp		For layout: Design
		For function: ABS warning lamp
VDC warning lamp		For layout: Design
		For function: VDC Warning lamp
Brake warning lamp		For layout: Design
		For function: Brake Warning Lamp
VDC OFF indicator lamp		For layout: Design
		For function: VDC OFF Indicator Lamp
Brake system warning lamp		For layout: Design
		For function: Brake System Warning Lamp

EXCEPT FOR USA

Name	Design	Layout/Function
ABS warning lamp		For layout: Design
		For function: ABS warning lamp
VDC warning lamp		For layout: Design
		For function: VDC Warning lamp
Brake warning lamp		For layout: Design
		For function: Brake Warning Lamp
VDC OFF indicator lamp		For layout: Design
		For function: VDC OFF Indicator Lamp
Brake system warning lamp		For layout: Design
		For function: Brake System Warning Lamp

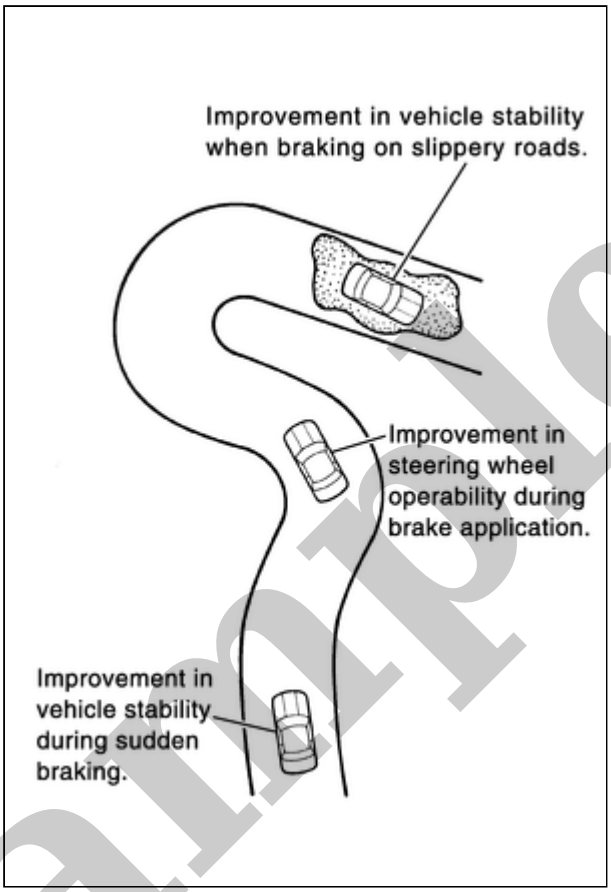


SIEMD-7262727-01-000403354

No.	Name	Description
①	VDC setting screen (Combination meter setting screen)	The setting of VDC OFF system can be switched between ON and OFF.

SIEMD-7262733

- By preventing wheel lock through brake force (brake fluid pressure) control that is electronically controlled by detecting wheel speed during braking, stability during emergency braking is improved so that obstacles can be easily bypassed by steering operation.
- During braking, control units calculates wheel speed and pseudo-vehicle speed, and transmits pressure increase, hold or decrease signals to actuator portion according to wheel slip status.
- The following effects are obtained by preventing wheel lock during braking.



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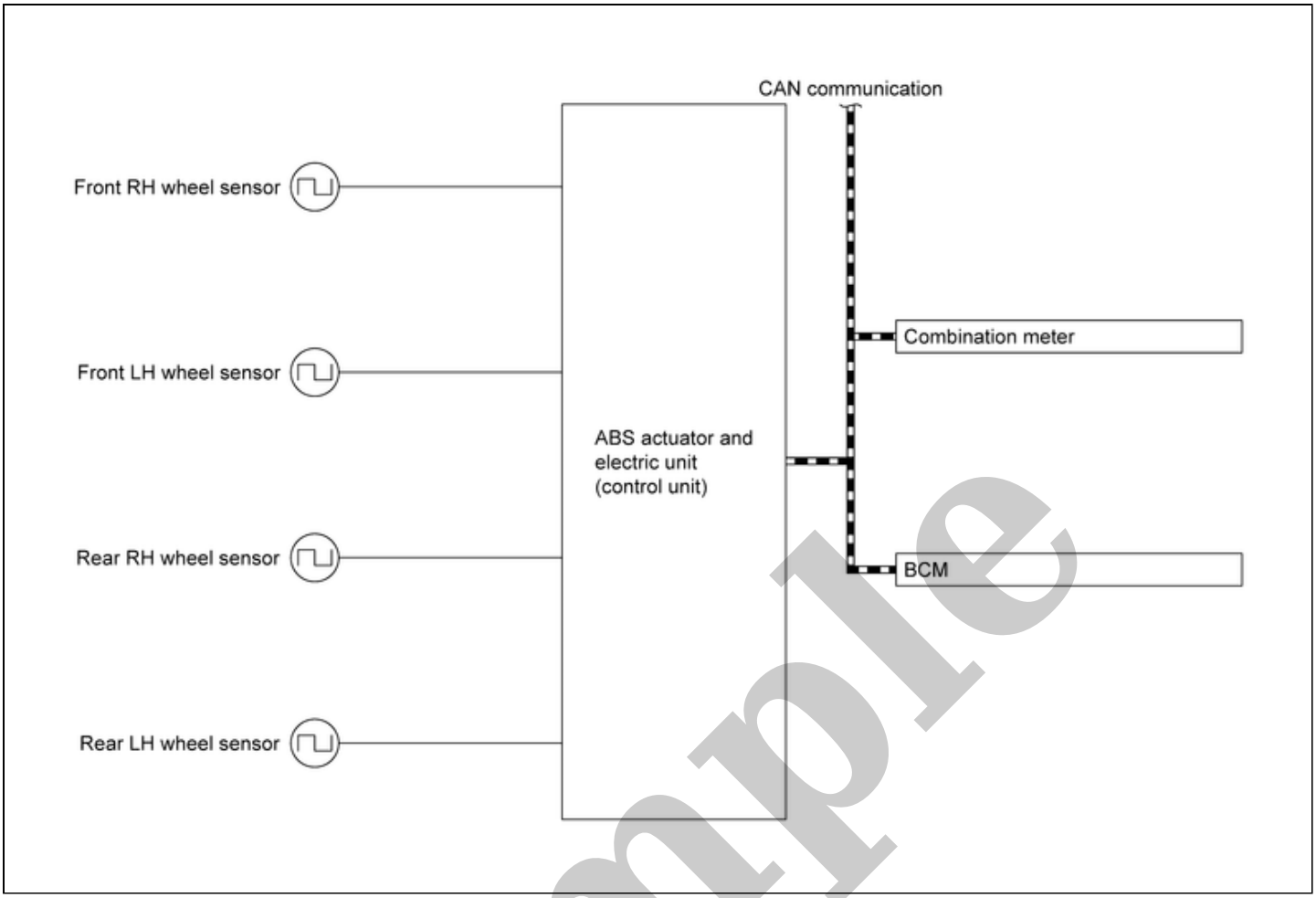
  - Vehicle tail slip is prevented during braking when driving straight.
  - Understeer and oversteer tendencies are moderated during braking driving on a corner.
  - Obstacles may be easily bypassed by steering operation during braking.
- CONSULT can be used to diagnose the system diagnosis.
- Fail-safe function is adopted. When a malfunction occurs in ABS function, the control is suspended for VDC function, TCS function, ABS function, hill start assist function, brake limited slip differential (BLSD) function, brake assist function, brake force distribution function and cooperative regenerative brake function. The vehicle status becomes the same as models without VDC function, TCS function, ABS function, hill start assist function, brake limited slip differential (BLSD) function, brake assist function, brake force distribution function and cooperative regenerative brake function. However, EBD function is operated normally. Refer to Fail-safe.

NOTE:

- **ABS function has the characteristic as described here, This is not the device that helps reckless driving.**
- **To stop vehicle efficiently, ABS does not operate and ordinary brake operates at low speed [approximately 10 km/h (6 MPH) or less, but differs subject to road conditions].**
- **Self-diagnosis is performed immediately after when set the vehicle to READY and when vehicle initially is driven [by vehicle speed approximately 15 km/h (9 MPH)]. Motor sounds are generated during self-diagnosis. In addition, brake pedal may be felt heavy when depressing brake pedal lightly. These symptoms are not malfunctions.**

SYSTEM DIAGRAM



SIEMD-7262733-02-000226189

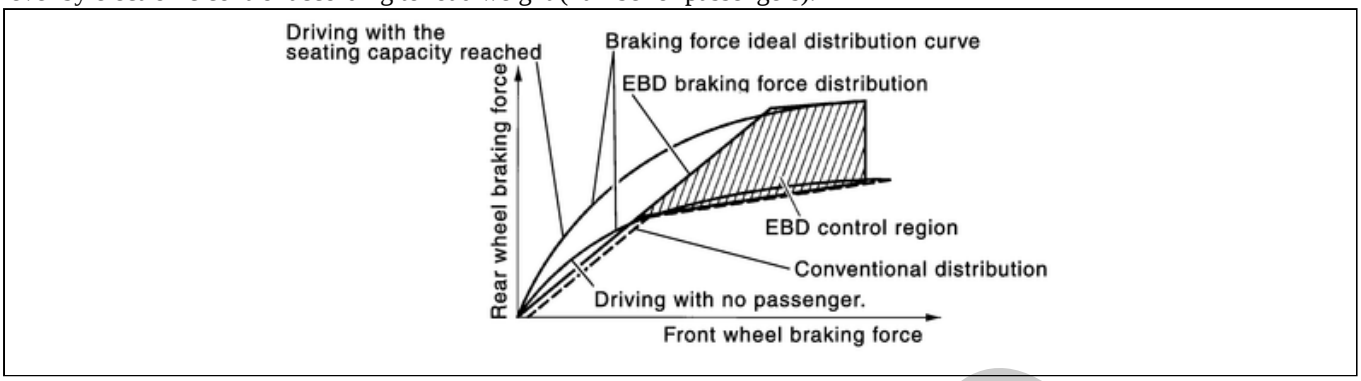
INPUT SIGNAL AND OUTPUT SIGNAL

Major signal transmission between each unit via communication lines is shown in the following table.

Component parts	Signal description
Combination meter	Mainly receives the following signals from ABS actuator and electric unit (control unit) via CAN communication. • ABS warning lamp signal • VDC warning lamp signal
BCM	Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication. • Stop lamp switch signal

SIEMD-7262735

- By preventing rear wheel slip increase through rear wheel brake force (brake fluid pressure) control that is electronically controlled when slight skip on front and rear wheels are detected during braking, stability during braking is improved.
- EBD function is expanded and developed from conventional ABS function and corrects rear wheel brake force to appropriate level by electronic control according to load weight (number of passengers).



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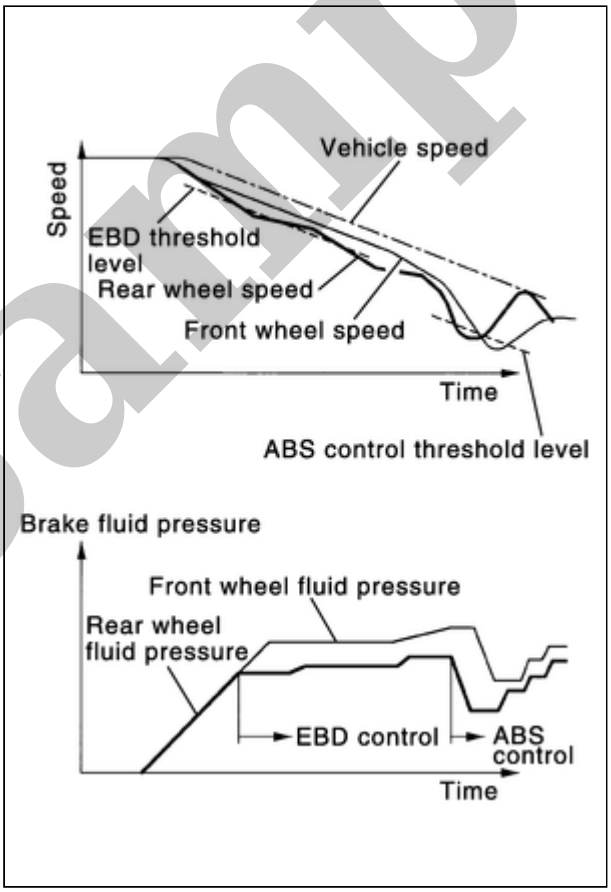
- During braking, control unit portion compares slight slip on front and rear wheels by wheel speed sensor signal, transmits drive signal to actuator portion when rear wheel slip exceeds front wheel slip for the specified value or more, and controls rear wheel brake force (brake fluid pressure) so that increase of rear wheel slip is prevented and slips on front wheel and rear wheel are nearly equalized. ABS control is applied when slip on each wheel increases and wheel speed is the threshold value of ABS control or less.



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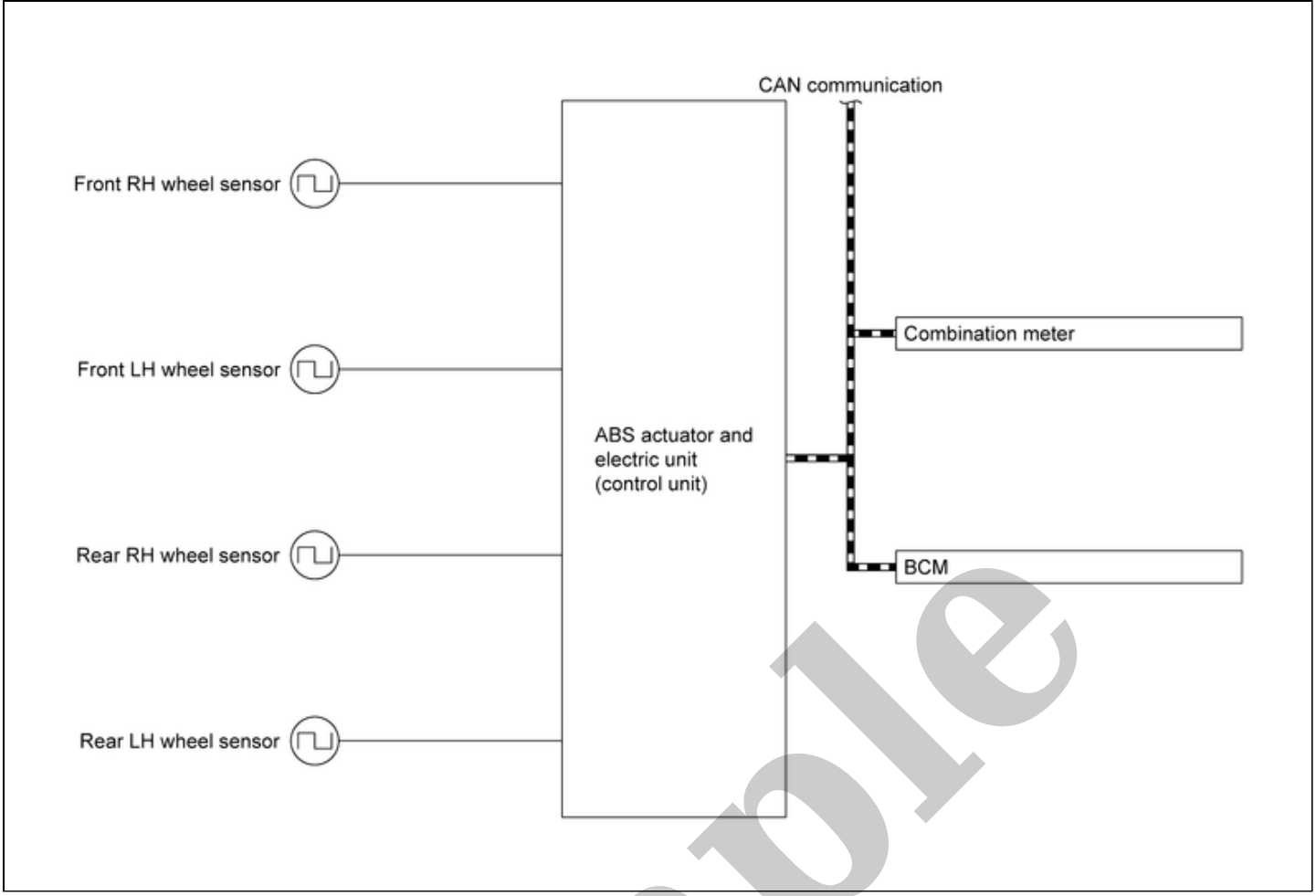
- CONSULT can be used to diagnose the system diagnosis.
- Fail-safe function is adopted. When a malfunction occurs in EBD function, the control is suspended for VDC function, TCS function, ABS function, EBD function, hill start assist function, brake limited slip differential (BLSD) function, brake assist function, brake force distribution function and cooperative regenerative brake function. The vehicle status becomes the same as models without VDC function, TCS function, ABS function, EBD function, hill start assist function, brake limited slip differential (BLSD) function, brake assist function, brake force distribution function and cooperative regenerative brake function. Refer to Fail-safe.

SYSTEM DIAGRAM



SIEMD-7262735-03-000226189

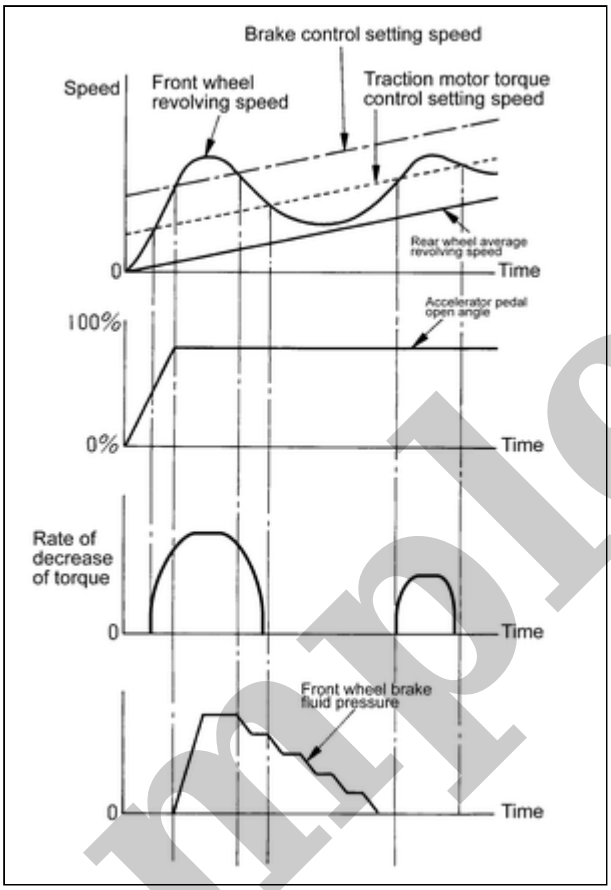
INPUT SIGNAL AND OUTPUT SIGNAL

Major signal transmission between each unit via communication lines is shown in the following table.

Component parts	Signal description
Combination meter	Mainly receives the following signals from ABS actuator and electric unit (control unit) via CAN communication. • ABS warning lamp signal • Brake warning lamp signal • VDC warning lamp signal
BCM	Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication. • Stop lamp switch signal

SIEMD-7262731

- Wheel spin status of drive wheel is detected by wheel sensor of 4 wheels. Traction motor output and transmission shift status is controlled so that slip rate of drive wheels is in appropriate level. When wheel spin occurs on drive wheel, ABS actuator and electric unit (control unit) perform brake force control of LH and RH drive wheels (apply brake force by increasing brake fluid pressure of drive wheel) and decrease traction motor torque by traction motor torque control. Wheel spin amount decreases. Traction motor torque is controlled to appropriate level.



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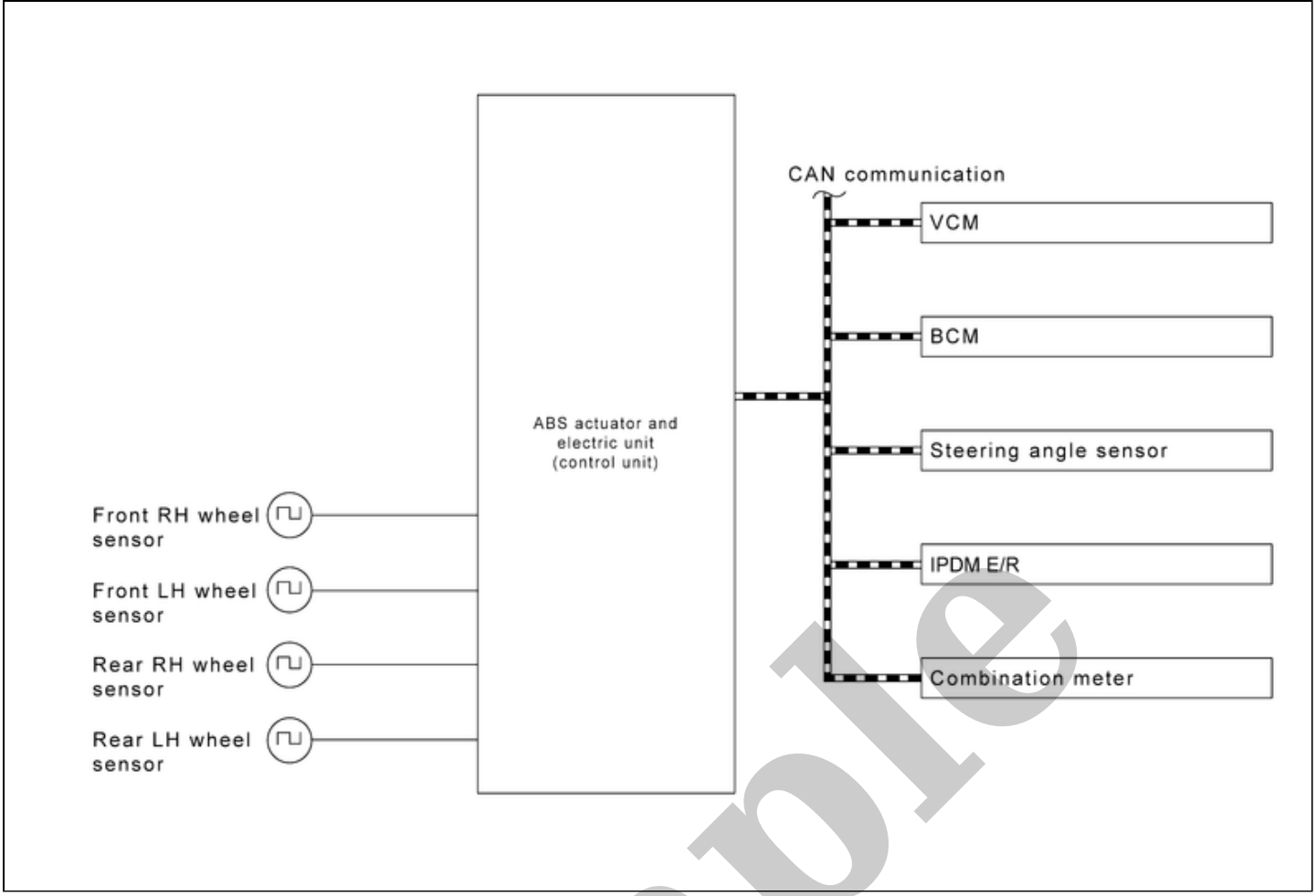
- TCS function can be switched to non-operational status (OFF). In this case, VDC OFF indicator lamp turns ON.
- VDC warning lamp blinks while TCS function is in operation and indicates to the driver that the function is in operation.
- CONSULT can be used to diagnose the system diagnosis.
- Fail-safe function is adopted. When a malfunction occurs in TCS function, the control is suspended for VDC function, TCS function, hill start assist function, brake limited slip differential (BLSD) function, brake assist function, brake force distribution function and cooperative regenerative brake function. The vehicle status becomes the same as models without VDC function, TCS function, hill start assist function, brake limited slip differential (BLSD) function, brake assist function, brake force distribution function and cooperative regenerative brake function. However, ABS function and EBD function are operated normally. Refer to Fail-safe.

SYSTEM DIAGRAM



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INPUT SIGNAL AND OUTPUT SIGNAL

Major signal transmission between each unit via communication lines is shown in the following table.

Component parts	Signal description
VCM	Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication. • VCM status signal • Accelerator pedal position signal • Traction motor status signal • Traction motor torque request signal • Shift position signal
BCM	Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication. • Stop lamp switch signal Mainly receives the following signals from ABS actuator and electric unit (control unit) via CAN communication. • Stop lamp request signal
Steering angle sensor	Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication. • Steering angle sensor signal

Component parts	Signal description
IPDM E/R	Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication. • Power switch ON signal
Combination meter	Mainly transmits the following signals to ABS actuator and electric unit (control unit) via CAN communication. • VDC setting signal • Brake fluid level switch signal Mainly receives the following signals from ABS actuator and electric unit (control unit) via CAN communication. • ABS warning lamp signal • Brake warning lamp signal • VDC OFF indicator lamp signal • VDC warning lamp signal