

DSC CM PART FUNCTION

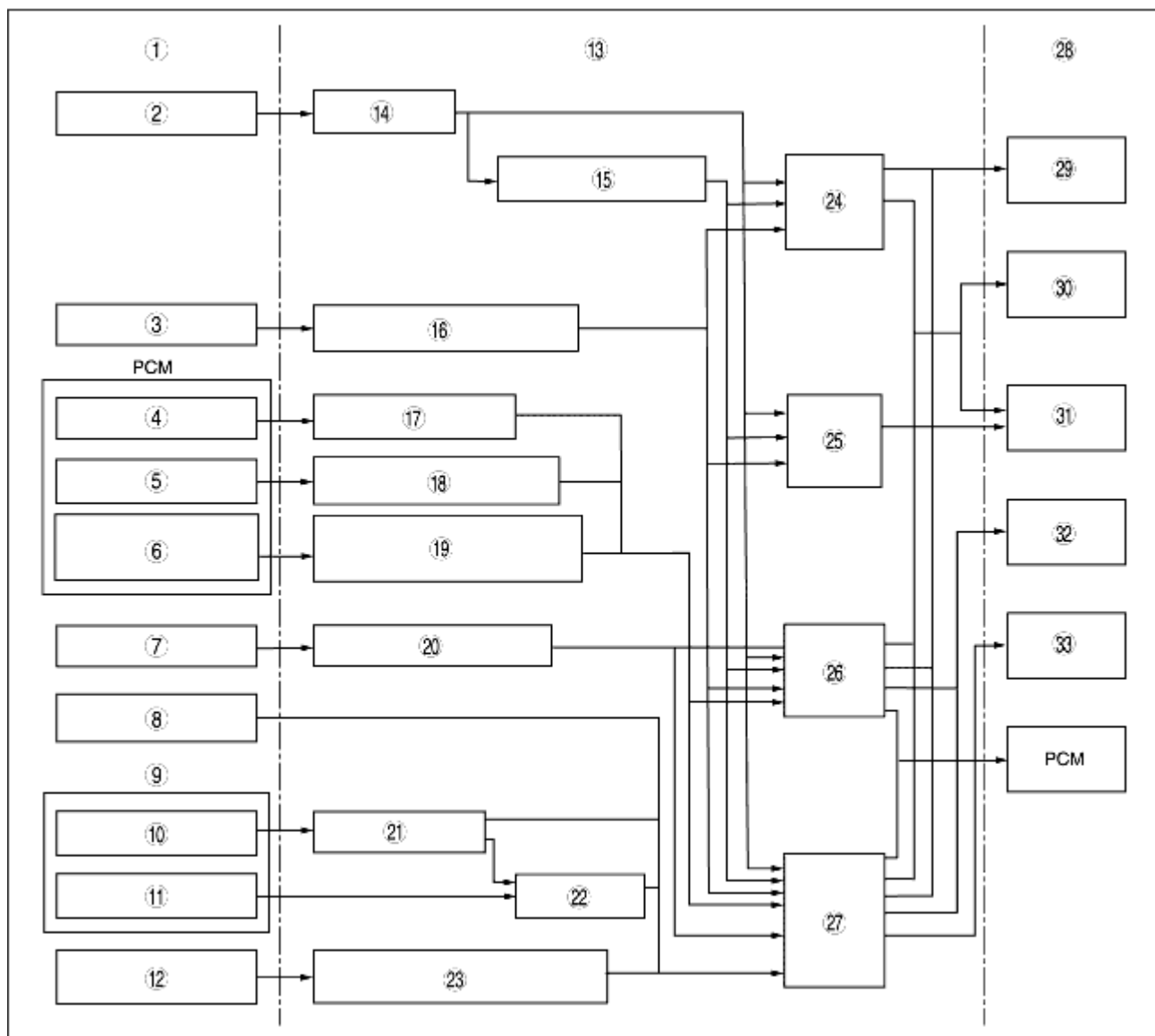
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- The DSC CM makes calculations using signals input from each sensor, outputs a brake fluid pressure control signal to the DSC HU to actuate DSC system functions and outputs an engine output control signal to the PCM.
- The DSC HU/CM controls the following functions:

Function Table

Function name	Contents
ABS control function	• Controls brake fluid pressure when braking to maintain directional stability, ensure steerability and reduce stopping distance.
Electronic brakeforce distribution (EBD) control function	• Constantly controls proper distribution of brake fluid pressure to the front and rear wheels according to vehicle load, road surface and vehicle speed conditions to prevent early lock-up of the rear wheels.
TCS control function	• Controls traction to within the road surface friction limit and according to road and driving conditions to improve starting and acceleration performance, and safety.
DSC control function	• Suppresses strong over-steer and under-steer tendencies when turning by controlling engine output and braking of each wheel to assure driving safety.
CAN communication function	• Outputs the vehicle speed signal and DSC system warning control data via CAN lines.
On-board diagnostic system	<ul style="list-style-type: none">• A function that allows important parts of the DSC control system to perform self-diagnosis. In case a malfunction occurs, the warning lights illuminate to alert the driver, and at the same time a DTC is stored in the DSC HU/CM.• When a malfunction is determined as a result of the on-board diagnostic test, system control is suspended or limited to prevent any dangerous situation while driving.

Block Diagram



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1	Input
2	ABS wheel-speed sensor
3	Brake switch
4	Engine speed/throttle valve opening angle (engine specifications)
5	Gear/selector lever position (transaxle specifications)
6	Output torque/torque reduction inhibited
7	DSC OFF switch
8	Steering angle sensor
9	Combined sensor
10	Yaw rate sensor
11	Lateral-G sensor
12	Brake fluid pressure sensor (inside DSC HU/CM)
13	Internal CU calculation
14	Wheel speed calculation
15	Estimated vehicle speed calculation

16	Brake operating status determination
17	Engine speed/throttle valve opening angle data assimilated
18	Throttle opening angle data assimilated
19	Output torque/torque reduction prohibited data assimilated
20	DSC OFF request determination
21	Yaw rate calculation
22	Lateral-G calculation
23	Master cylinder fluid pressure calculation
24	ABS control amount
25	EBD control amount
26	TCS control amount
27	DSC control amount
28	Output
29	Pump motor
30	Front solenoid valve
31	Rear solenoid valve
32	Traction control switching valve
33	Traction control priming valve