

FAIL-SAFE CHART

1. FAIL-SAFE FUNCTION

- (a) When communication fails in any of the main wires (communication lines) due to a short circuit or other causes, the fail-safe function, which is specified for each system, operates to prevent the system from malfunctioning.
- (b) The table below shows the effects on each system when communication is impossible. For further details, refer to each system.

Function	ECM	ABS and Traction Actuator (Skid Control ECU)	Yaw Rate Sensor	Steering Angle Sensor	4WD Control ECU	Condition when communication impossible	DTC detection (Driver detectable)
Navi-CVT cooperative control (appropriate gear change control according to curve, incline, or driver's instructions)	●					Cooperative control cancellation	None (Brakes are not as effective when entering curves)
Normal cruise control (Maintains vehicle speed)	●	○				Normal cruise function stops	Detectable (Light comes on)
Neutral control	●	○				Neutral control function stops	None
Air conditioning control (Vehicle interior A/C control)	○					Air conditioning function stops	None (Air conditioning inoperative)
VSC control (Controls driving force while VSC in operation)	○	●	○	○		Control inoperative (gradually stops controlling during VSC control)	Detectable (Light comes on)
TRC control (Controls driving force and engine power when wheel slip detected during acceleration)	○	●				Control inoperative (gradually stops controlling during TRC control)	Detectable (Light comes on)
4WD control (Controls vehicle driving power distribution to front and rear wheels according to driving conditions)	○	○		○	●	4WD control function stops (same as 2WD)	Detectable (Light comes on)

Function	ECM	ABS and Traction Actuator (Skid Control ECU)	Yaw Rate Sensor	Steering Angle Sensor	4WD Control ECU	Condition when communication impossible	DTC detection (Driver detectable)
Electric power steering control (Vehicle speed response type torque control)	○	○				EPS assist function canceled or reduced (steering wheel becomes harder to turn)	When VSC is abnormal (Light comes on) When engine is abnormal (Function canceled / Recognizable by decrease in steering power assist)
Meter display (Vehicle condition display, indicator light control)	○	○			○	Light does not come on, illuminates abnormally, or blinks abnormally	Detectable (Abnormal display)

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HINT:

- : Control master ECU
- : Related ECU or sensor

Function	Power Steering ECU	Center Airbag Sensor Assembly	Air Conditioning Amplifier	Combination Meter ECU	Main Body ECU	Condition when communication impossible	DTC detection (Driver detectable)
Navi-CVT cooperative control (appropriate gear change control according to curve, incline, or driver's instructions)						Cooperative control cancellation	None (Brakes are not as effective when entering curves)
Normal cruise control (Maintains vehicle speed)						Normal cruise function stops	Detectable (Light comes on)
Neutral control						Neutral control function stops	None
Air conditioning control (Vehicle interior A/C control)			●			Air conditioning function stops	None (Air conditioning inoperative)
VSC control (Controls driving force while VSC in operation)						Control inoperative (gradually stops controlling during VSC control)	Detectable (Light comes on)

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TRC control (Controls driving force and engine power when wheel slip detected during acceleration)						Control inoperative (gradually stops controlling during TRC control)	Detectable (Light comes on)
4WD control (Controls vehicle driving power distribution to front and rear wheels according to driving conditions)						4WD control function stops (same as 2WD)	Detectable (Light comes on)
Electric power steering control (Vehicle speed response type torque control)	●					EPS assist function canceled or reduced (steering wheel becomes harder to turn)	When VSC is abnormal (Light comes on) When engine is abnormal (Function canceled / Recognizable by decrease in steering power assist)
Meter display (Vehicle condition display, indicator light control)	○	○	○	●	○	Light does not come on, illuminates abnormally, or blinks abnormally	Detectable (Abnormal display)

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