



C05DC

4WD/AWD Clutch A Temperature Too High

This code means the all-wheel-drive or four-wheel-drive control module has determined that the clutch pack responsible for engaging the secondary axle has exceeded its safe operating temperature. The module monitors a temperature sensor or calculates heat from clutch slip and engagement time, and it sets this code when the calculated or measured temperature crosses a calibrated threshold.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Chassis	Generic (all makes)	Medium	Professional	Brakes, steering and suspension

Symptoms you may notice

- The all-wheel-drive or four-wheel-drive warning light illuminates steadily on the dashboard.
- The vehicle may default to two-wheel drive, with a noticeable loss of traction on slippery surfaces.
- A burning or hot clutch smell may be present after extended low-speed maneuvering or towing.
- The system may shudder or clunk during tight turns as the clutch engages and disengages abruptly.
- Often no symptoms besides the warning light, especially if the overheat event was brief and has since cooled.
- The code may clear itself after the clutch cools, only to return under the same driving conditions.

Common causes, most likely first

- 1 Extended low-speed driving with the clutch partially engaged, such as repeated tight parking maneuvers or rock crawling.
- 2 Towing or hauling a heavy load beyond the rated capacity, which keeps the clutch working continuously.
- 3 Low or degraded clutch fluid, or a fluid that has broken down from repeated heat cycles and no longer lubricates or cools effectively.
- 4 A sticking or slow-responding clutch actuator or control solenoid that keeps the clutch engaged longer than commanded.
- 5 A faulty clutch temperature sensor or a wiring fault in its circuit, causing a false high reading.
- 6 Mechanical wear or incorrect clutch pack clearance that increases slip and heat generation.
- 7 A restricted or failing clutch cooling circuit, such as a blocked cooler or a weak circulation pump on fluid-cooled systems.



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for this code, noting vehicle speed, clutch temperature, and duty cycle at the time of the fault.
- 2 Inspect the clutch fluid level and condition, looking for dark or burnt fluid that indicates overheating, and service it if contaminated.
- 3 Check the clutch temperature sensor and its wiring for resistance out of specification, corrosion, or chafed harness sections.
- 4 Command the clutch actuator or control solenoid with a scan tool and verify it engages and releases smoothly without sticking.
- 5 Verify the cooling circuit, including the cooler and any circulation pump, for restriction or failure if the system is fluid-cooled.
- 6 Measure clutch pack clearance and inspect the friction plates for glazing, scoring, or wear if the fault returns after fluid service.
- 7 Clear the code and perform a relearn or calibration procedure, then road-test under the conditions that originally set the code.

Why the clutch overheats without a heavy load

- A binding or dragging brake on the secondary axle can make the all-wheel-drive clutch work constantly to compensate, overheating it without any obvious driver complaint.
- Mismatched tire sizes or uneven tire wear between the front and rear axles causes a permanent speed difference that keeps the clutch slipping and generating heat.
- A failing wheel speed sensor or steering angle sensor can feed bad data to the control module, which then commands clutch engagement when none is needed.
- The code does not always mean the clutch is damaged; a brief overheat event from a single low-speed maneuver can set it with no lasting harm once the unit cools.
- After any repair, the control module may need a clutch calibration or adaptation reset, or the code will return immediately even though the fault is fixed.

Can I keep driving with C05DC?

You can usually drive the vehicle to a repair shop, but avoid towing, heavy loads, and repeated tight low-speed maneuvers until the fault is diagnosed. If the warning light is accompanied by a burning smell or the system has disabled all-wheel drive, keep the drive short and gentle.



Tools that help

- OBD-II scan tool with all-wheel-drive module access and bidirectional controls
- Infrared thermometer to check clutch housing temperature
- Digital multimeter for sensor and wiring checks
- Tire tread depth gauge to compare front and rear tire wear
- Fluid extractor or drain pan for clutch fluid service
- Factory service information for clutch calibration and clearance specifications

Reading C05DC

C	Chassis: brakes, steering and suspension.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
5	Brakes, steering and suspension.
DC	The exact fault within that area.

Often seen with

P1860 Kick Down Switch Error Message From Engine Control · **P1860** TCC PWM Solenoid Circuit Electrical · **C0561** ABS Disabled Warning Indicator Request · **C05DD** 4WD/AWD Clutch A Performance/Stuck Disengaged · **C05DE** 4WD/AWD Clutch A Stuck Engaged · **C05DF** 4WD/AWD Clutch A Engagement Fault

See it working

Watch the animated explainer [Manual Car Driving Simulator: Learn Clutch Control](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c05dc/>

