



P0C14

Drive Motor B Inverter Phase U Over Temperature

P0C14 indicates that the inverter responsible for driving electric motor B has detected an over-temperature condition on phase U of its output. The inverter control module continuously monitors the temperature of the phase U switching devices and reports this code when that temperature exceeds a calibrated threshold, typically due to excessive current, poor cooling, or a failing component.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	High	Professional	Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message, often with no other noticeable symptoms.
- Reduced power or limp-home mode as the inverter limits current to protect the phase U hardware.
- Intermittent loss of drive motor B operation, especially under high load or during sustained driving.
- Audible cooling fan running excessively or continuously as the system tries to manage inverter temperature.
- Overheating warning message on the dashboard in vehicles equipped with a dedicated EV thermal display.

Common causes, most likely first

- 1 Low or degraded coolant in the inverter cooling loop, leading to inadequate heat removal from the phase U modules.
- 2 A failing coolant pump or restricted coolant passage that reduces flow specifically to the inverter assembly.
- 3 High resistance or loose connection at the phase U cable between the inverter and motor B, causing excess heat generation.
- 4 Internal degradation of the phase U power switching devices (insulated-gate bipolar transistors or metal-oxide-semiconductor field-effect transistors) increasing conduction losses.
- 5 A faulty temperature sensor on the phase U module reporting falsely high values to the inverter controller.
- 6 Software or calibration issues in the inverter control module that misjudge thermal thresholds under certain operating conditions.
- 7 Extreme sustained load or repeated hard acceleration that pushes the inverter beyond its designed thermal capacity.



How to diagnose and fix it

- 1 Verify coolant level and condition in the inverter cooling system, and pressure-test the loop for leaks or blockages.
- 2 Check coolant pump operation and confirm adequate flow through the inverter using a scan tool to command the pump and observe temperature response.
- 3 Inspect the phase U cable and connectors for tightness, corrosion, or heat damage, and measure resistance end-to-end if accessible.
- 4 Use a scan tool to read live inverter temperature data and compare the phase U sensor reading with other phases to identify a faulty sensor.
- 5 Perform a thorough visual inspection of the inverter assembly for signs of overheating, such as discoloration or melted components, and check for updated software or service bulletins.
- 6 If all external factors are ruled out, replace the inverter assembly or the specific phase U power module as directed by the manufacturer's service procedure.
- 7 After repair, clear the code and perform a road test under varying loads to confirm the over-temperature condition does not return.

Cooling system faults often masquerade as inverter failure

- A significant number of P0C14 cases are resolved by repairing the inverter cooling circuit rather than replacing the inverter itself, so always verify coolant flow and pump operation first.
- The phase U temperature sensor can drift and report false over-temperature values without any actual overheating, which is why comparing live data across phases is a critical diagnostic step.
- Loose or corroded connections at the phase U terminals create localized resistance that generates heat only under load, so a visual inspection at rest may miss the problem.
- Some vehicles set P0C14 as a history code after a single extreme driving event, and it may not indicate a persistent fault if the cooling system is otherwise healthy.
- The inverter may derate power output before setting the code, so drivers sometimes notice reduced performance without a warning light until the condition worsens.

Can I keep driving with P0C14?

Do not continue driving under heavy load or at high speeds, as the over-temperature condition can lead to inverter failure and a sudden loss of propulsion. Limit driving to a slow, gentle trip directly to a qualified service facility, and avoid any situation that demands maximum power.



Tools that help

- OBD-II scan tool with live data and bidirectional control capabilities
- Digital multimeter with temperature probe
- Coolant pressure tester
- Insulation resistance tester (megohmmeter)
- Thermal imaging camera

Reading P0C14

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
C	Hybrid propulsion.
14	The exact fault within that area.

Often seen with

P0A3F Drive Motor A Position Sensor Circuit · **P0A78** Drive Motor A Inverter Performance · **P0C15** Drive Motor B Inverter Phase V Over Temperature · **P0C16** Drive Motor B Inverter Phase W Over Temperature · **P0C17** Drive Motor A Position Sensor Not Learned

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0c14/>

