

PTO Conditions

The PTO shutdown timer is activated when all of the following conditions are met:

- ☐ PTO is active (Cruise PTO)
- ☐ Remote PTO is not active (Pin 2/9 is not grounded)
- ☐ Coolant temperature is higher than 60°F (15.6°C)
- ☐ Transmission is in neutral gear (or no neutral detection available)
- ☐ Vehicle is not moving

If Remote PTO is active (CPC pin 2/9 is grounded or multiplexed on J1939 and feature is enabled), the PTO and idle timers for the CARB idle limiting feature are deferred until Remote PTO is inactive and the criteria described in the previous section are met. Refer to section 4.1.21 for a full description of the Remote PTO Switch.

Override Conditions

The timer is reset when one of the following conditions are met. To prevent tampering, permanently applying a condition will not defer the shutdown.

- ☐ Service brake pedal is actuated
- ☐ Clutch pedal is actuated
- ☐ Stop engine override is actuated
- ☐ Accelerator pedal is actuated
- ☐ Status of park brake changed

Diagnostic Tools (DDDL or DDRS)

If a diagnostic tool is connected while the engine is running an additional 60 minutes idle time is granted. This session is available once per ignition cycle and will run out whenever idle or PTO conditions are met. When the idle or PTO conditions are no longer met, the diagnostic timer will be delayed.

If the tool is disconnected within this 60 minutes and either idle or PTO conditions are met, the engine will shutdown when either the diagnostic timer has run out or the regular timer for idle or PTO has reached its time to shutdown. If the diagnostic session takes longer than 60 minutes of idle time and idle or PTO conditions are met, the shutdown process will start.

The remaining idle time in diagnostic mode can be monitored using UDS analogue value #44.

High Idle Regeneration

High Idle Regeneration (HIR) will defer the shutdown process until the completion of the high-idle regeneration.

5.3.2 INTERACTION WITH OTHER FEATURES

The features listed in Table 5-6 are affected by California Engine Idle.

Feature	Interaction with California Engine Idle Limiting
Optimized idle	Permanently disabled
Traditional Idle and PTO Shutdown	These features can be used. The California logic takes the minimum of the calibrated idle and PTO shutdown times. To prevent tampering, permanent override conditions will not affect the California Engine Idle Limiting logic functionality.
Continuous Override (auto and throttle pedal)	Disabled

Table 5-6 California Engine Idle Limiting and Other Features