UI BULLETIN # 79 C

SUBJECT: Power Take-Off (PTO) Subsystem Features

MODELS AFFECTED:
C/K 3500 Heavy Duty
Chassis Cab Chevrolet Silverado
and GMC Sierra

MODEL YEAR(S):
2007 – 2013

DATE: 12/05/2006

REV. DATE: 01/07/2013

ADVISORY:

This bulletin provides a brief description of the PTO option offered on Heavy Duty Silverados and Sierras. The PTO Subsystem option includes all of the components & wiring for a tested, functional system as ordered from the factory.

The bulletin shows the location of the following components included with the option:
1. New Driver control switch.
2. New PTO module
3. New 16-way connector for user interface.

The bulletin contains the following sections:
1. System Overview.
2. Detailed Functional Description
3. Standard vs. Optional Features

Note: This bulletin addresses the “All New” not the “Classic” C/K truck. The PTO option can't be added or retrofitted if not included as ordered!
Vehicle Configuration
- HD cab-chassis trucks
- Regular (03) and extended (53) cabs
- Duramax (6.6L) diesel engine with the Allison LCT-1000 transmission

PTO Location
- Factory-installed in-dash PTO switch
- Upfitter electrical connector for single-point interface with PTO sub-system
- No new PTO gearbox/pump necessary – fits in the same location as on the previous model

Types of PTO Operation
- Stationary
- Preset – Factory Installed
- Variable – Dealer Option
- Mobile Variable – Dealer Option

PTO vs. Cruise Control
- Whereas Cruise Control manages vehicle speed, PTO controls engine speed
- Cruise Control: Engine speed can vary up and down, but vehicle speed remains constant
- PTO: In mobile variable mode vehicle speed can vary up and down, but engine speed remains constant
Please note: The icons below are part of the In-Dash Multi-Function PTO Switch

Stationary Preset PTO
(Factory Installed)
Applications: Dumping, Liftgates, etc.

- Three PTO Speeds
  - Standby (800 RPM): Achieved when the button is initially depressed
  - Preset #1 (1250 RPM): With PTO active, this speed is reached by pressing
  - Preset #2 (1700 RPM): With PTO active, this speed is reached by pressing
  - Standby & Preset Speeds can be altered by a GM Service Technician using a Tech 2
  - Remote Operation is optional in this mode

Stationary Variable PTO (option)
Applications: Dumping, Liftgates, Bucket Trucks, etc.

- Functions similar to cruise control
- Initially PTO is engaged at Standby (800 RPM)
- PTO Speed Adjustment Features
  - Set/Resume:
    - Choose engine speed using accelerator pedal, press to maintain this engine speed
    - Resume after dropping out of PTO (e.g. after traffic signal) by pressing
  - Tap Up/Tap Down:
    - Increments engine speed UP using
      - and DOWN by pressing
    - Default increment is 100 RPM
  - Ramp Up/Ramp Down:
    - Ramps engine speed gradually while
    - or buttons are pressed
  - Increment and Ramp Rate can be altered by a GM Service Technician using a Tech 2
  - Remote Operation is available in this PTO mode

Mobile Variable PTO (option)
Applications: Salt & Fertilizer Spreaders, Street Sweepers, Plow Blades, etc.

- Possible alternative to a Central Hydraulic System
- Functions similar to Stationary Variable PTO
- Can be used at speeds up to 80 mph; however, the default maximum speed is 50 mph.
- Remote Operations is not available in this PTO mode

Remote Operation
- Available in Stationary PTO modes only
- Allows operator to utilize PTO features from a Remote Operation pendant
- Remote options are accessed through aftermarket PTO controls attached to the OEM PTO Upfitter connector
- Remote Engine Start/Shutdown
  - Start requires multiple switch actions to initiate engine starting
  - Shutdown has 3 modes of operation
    + Operator remote switch
    + Timed auto shutdown
    + Critical engine conditions

Detailed functional description continued on next page
**Stopping PTO**
- Two methods:
  - **Ramp-to-Off**
    - Achieved by pressing
    - Engine speed ramps down to base idle
    - PTO disengages and shuts off
  - **Suspend/Resume**
    - Achieved by pressing the brake pedal
    - Engine speed drops to base idle (no ramp)
    - PTO disengages, but previous PTO speed retained in memory; can resume after brake is released or by pressing

**Stationary Preset PTO**
- **Fast blink**: Indicates PTO in the process of engaging
- **Solid**: PTO is engaged
- **Slow blink**: PTO is suspended, but PTO speed is retained in memory

**PTO Load Control (Option)**
- Provides operator with greater control over engagement of PTO
- Load can be programmed to remain enabled all the time (e.g. when stopped at a traffic signal)
- Load may be engaged within a programmed RPM range
- **No other OEM has this feature**

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**STANDARD vs. OPTIONAL FEATURES**

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<thead>
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<th>Optional Configuration</th>
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<tr>
<td>Engine Run Time in PTO</td>
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<td>Initial PTO Speed</td>
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<td>Remote Operation Controls</td>
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<tr>
<td>- Pedal Position Switch (PPS)</td>
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<td>Min &amp; Max Calibrateable</td>
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**Legend**
- O = Enabled
- X = Disabled
- † = Optional features include those listed for Stationary PTO excluding Preset Speed #1 & #2 calibrateability.