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This guide is to be used as a reference document only. Please consult your Western Star CAE representative on specific spec'ing needs as the information contained in this document can change without notice.



# Western Star Bodybuilder Book: Revision 3.1

## Additional Switches (SC 329)



### Not Wired All Models

#### Simple Dash switch (All Models)

These switch options provide additional switches in the dash and have no output wires or input wires. All connections must be run by upfitter or customer.

Sales Code	Simple Dash Switch Option Description
329-001	(1) EXTRA SWITCH IN DASH
329-002	(2) EXTRA SWITCHES IN DASH
329-003	(3) EXTRA SWITCHES IN DASH
329-004	(4) EXTRA SWITCHES IN DASH
329-018	(6) EXTRA SWITCHES IN DASH
329-020	(5) EXTRA SWITCHES IN DASH
329-025	(7) EXTRA SWITCHES IN DASH
329-022	(8) EXTRA SWITCHES IN DASH
329-026	(9) EXTRA SWITCHES IN DASH
329-021	(10) EXTRA SWITCHES IN DASH

#### Dash Switches Prewired to Frontwall (all Models)

These dash switch options provide additional switches in the dash with cab power from battery in but no output wires. All output connections must be run by upfitter or customer.

Sales Code	Switch Prewired to front wall
329-034	(4) EXTRA SWITCHES IN DASH, W/IND LAMP AND WIRE TO FRONTWALL
329-079	(4) 20 AMP FUSED EXTRA SWITCHES IN DASH WITH INDICATOR LAMP, WIRED TO FIREWALL, (1) SWITCH TO BE BATTERY POWERED
329-096	(4) EXTRA SWITCHES IN DASH WITH INDICATOR LAMP AND RELAYS WIRED TO FRONTWALL WITH BLUNT CUT ENDS

#### Simple Dash switch with Power (All Models)

These dash switch options provide additional switches in the dash with cab power from battery in but no output wires. All output connections must be run by upfitter or customer.

Sales Code	Simple Dash Switch with Power Option Description
329-084	(3) EXTRA SWITCHES IN DASH; (2) SWITCHES SUPPLIED WITH BATTERY POWER AND LABELED AUX PTO AND LOAD LIGHT
329-1A7	(4) EXTRA SWITCHES IN DASH; (3) SWITCHES WITH BATTERY POWER LABELED AUX PTO, LOAD LIGHT AND STROBE

#### Dash Switches Prewired to In Cab Junction Box behind passenger seat (All Models)

Dash switches wired in dash and routed inside cab to junction box, located at the back of cab behind passenger seat **see page 1B-15** in body builder book. Availability on

Sales Code	Switch Prewired to In Cab Junction Box
329-054	(5) EXTRA SWITCHES WIRED TO 9 POLE JUNCTION BOX MOUNTED BEHIND PASSENGER SEAT (YRB)



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## Additional Switches (SC 329)



### Routed In Chassis All Models

#### In chass Back of Cab Prewired Switches (All Models)

These switch options provide additional switches in the dash with battery power in and blunt cut wires routed in the chassis Harness under the cab from front wall to the Back of Cab with approximately 6 feet of coiled wire

Sales Code	Switch Wired in Frame to BOC Option Description
329-006	(1) EXTRA SWITCH IN DASH WITH INDICATOR LAMP AND WIRE TO CHASSIS AT BACK OF CAB/SLEEPER
329-056	(4) EXTRA SWITCHES IN DASH WITH INDICATOR LIGHT, 20 AMPS, AND RELAYS WIRED TO CHASSIS AT BACK OF CAB/SLEEPER
329-046	(10) EXTRA SWITCHES WITH INDICATOR LAMP AND WIRE TO CHASSIS AT BACK OF CAB/SLEEPER
329-015	(1) <b>ON/OFF ROCKER</b> SWITCH IN THE DASH WITH INDICATOR LIGHT AND WIRE ROUTED TO CHASSIS AT BACK OF CAB, LABEL OPT
329-010	(2) <b>ON/OFF ROCKER</b> SWITCHES IN THE DASH WITH INDICATOR LIGHTS AND WIRE ROUTED TO CHASSIS AT BACK OF CAB, LABEL OPT
329-012	(4) <b>ON/OFF ROCKER</b> SWITCHES IN THE DASH WITH INDICATOR LIGHTS AND WIRE ROUTED TO CHASSIS AT BACK OF CAB, LABEL OPT
329-017	(3) <b>ON/OFF ROCKER</b> SWITCHES IN THE DASH WITH INDICATOR LIGHTS AND WIRE ROUTED TO CHASSIS AT BACK OF CAB, LABEL OPT
329-050	(5) <b>ON/OFF ROCKER</b> SWITCHES IN THE DASH WITH INDICATOR LIGHTS AND WIRE ROUTED TO CHASSIS AT BACK OF CAB/SLEEPER, LABEL OPT
329-051	(6) <b>ON/OFF ROCKER</b> SWITCHES IN THE DASH WITH INDICATOR LIGHTS AND WIRE ROUTED TO CHASSIS AT BACK OF CAB/SLEEPER, LABEL OPT
329-082	(7) <b>ON/OFF ROCKER</b> SWITCHES IN THE DASH WITH INDICATOR LIGHTS; FOUR WIRE TO CHASSIS AT BACK OF CAB, THREE UNWIRED, LABEL ALL OPT
329-078	(8) <b>ON/OFF ROCKER</b> SWITCHES IN THE DASH WITH INDICATOR LIGHTS AND WIRE ROUTED TO CHASSIS AT BACK OF CAB/SLEEPER, LABEL OPT
329-080	(7) <b>ON/OFF ROCKER</b> SWITCHES IN THE DASH WITH INDICATOR LIGHTS AND WIRE ROUTED TO CHASSIS AT BACK OF CAB/SLEEPER, LABEL OPT
329-1AG	(1) <b>20 AMP</b> EXTRA SWITCH IN DASH WITH INDICATOR LAMP AND RELAYS WIRED TO CHASSIS AT BACK OF CAB/SLEEPER
329-058	(3) <b>20 AMP</b> EXTRA SWITCHES IN DASH WITH INDICATOR LAMP AND RELAYS WIRED TO CHASSIS AT BACK OF CAB/SLEEPER
329-071	(6) <b>20 AMP</b> IGNITION CONTROLLED EXTRA SWITCHES WITH INDICATOR LIGHT, WIRED TO BACK OF CAB/SLEEPER

#### In chass End of Frame Prewired Switches (All Models)

These switch options provide additional switches in the dash with battery power and blunt cut wires routed in the chassis harness to the end of frame typically with 6 feet of coiled wire

Sales Code	Switch Wired in Frame to End Of Frame
329-043	(2) EXTRA SWITCHES IN DASH WITH INDICATOR LAMP AND WIRE TO CHASSIS END OF FRAME
329-1AM	(3) <b>ON/OFF ROCKER</b> SWITCHES IN THE DASH WITH INDICATOR LIGHTS AND WIRE ROUTED TO CHASSIS AT END OF FRAME, LABEL OPT
329-052	(4) EXTRA SWITCHES IN DASH WITH INDICATOR LAMPS, WIRED TO END OF FRAME WITH SIX FEET EXTRA COILED WIRE

### Prewired in Floor Track 4700 Models Only

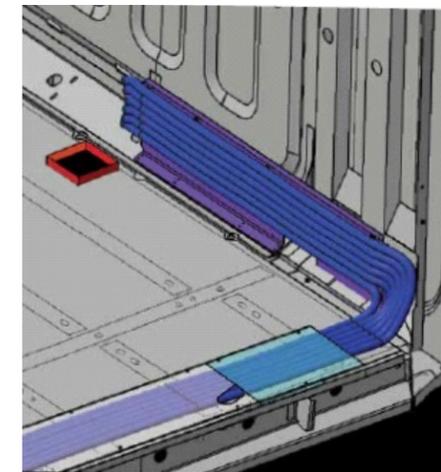
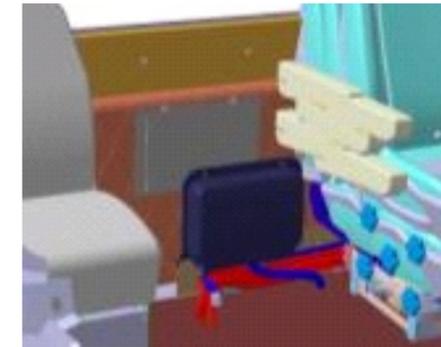
#### Prewired switches to inside BOC 4700

The floor track switch options are designed to provide prewired dash switches pre routed to the inside back wall of the cab.

The 4700's body up-fit friendly floor track system creates a safe and easily accessible routing path to which has capacity for up to six - 1/2" harness bundles. these bundles are protected by an easy access cover and eliminate the work of adding additional switches.

see sections **1A** and **1B** for more information on switch types, switch covers and harness schematic information.

Sales Code	4700 Switch Prewired to inside BOC through Floortrack	
329-064	(2) IGNITION CONTROLLED EXTRA SWITCHES WITH INDICATOR LIGHT, 20 AMPS, WIRED BEHIND PASSENGER SEAT	Required in Cab PDM
329-068	(4) IGNITION CONTROLLED EXTRA SWITCHES WITH INDICATOR LIGHT, 20 AMPS, WIRED BEHIND PASSENGER SEAT	Required in Cab PDM
329-072	(6) IGNITION CONTROLLED EXTRA SWITCHES WITH INDICATOR LIGHT, 20 AMPS, WIRED BEHIND PASSENGER SEAT	Required in Cab PDM
329-076	(10) IGNITION CONTROLLED EXTRA SWITCHES WITH INDICATOR LIGHT, 20 AMPS, WIRED BEHIND PASSENGER SEAT	Required in Cab PDM
329-1AU	(2) IGNITION CONTROLLED EXTRA SWITCHES WITH INDICATOR LIGHT, 10 AMPS, WIRED BETWEEN DRIVER AND PASSENGER SEATS	PDM Optional
329-1AV	(4) IGNITION CONTROLLED EXTRA SWITCHES WITH INDICATOR LIGHT, 10 AMPS, WIRED BETWEEN DRIVER AND PASSENGER SEATS	PDM Optional
329-1AW	(6) IGNITION CONTROLLED EXTRA SWITCHES WITH INDICATOR LIGHT, 10 AMPS, WIRED BETWEEN DRIVER AND PASSENGER SEATS	PDM Optional
329-1AX	(10) IGNITION CONTROLLED EXTRA SWITCHES WITH INDICATOR LIGHT, 10 AMPS, WIRED BETWEEN DRIVER AND PASSENGER SEATS	PDM Optional





# RPM Control (SC 148)

## RPM Control

Module 148, RPM Control, has sales codes used by customers to define the RPM control functionality.

Engine RPM control supports vocational applications typically using PTOs. RPM control can be implemented exclusively in engine programming, with standard engine controls (e.g. Cruise Control switches), or through a remote interface.

OPTION	DESCRIPTION
148-003	PROGRAMMABLE RPM CONTROL - ELECTRONIC ENGINE
148-004	PROGRAMMABLE RPM CONTROL WITH PRESET FAST IDLE
148-011	PRESET FAST IDLE (1400 RPM) FOR ELECTRONIC ENGINE WITH REMOTE VERNIER THROTTLE AND WIRING KIT
148-024	REMOTE THROTTLE SWITCH MOUNTED TO WINCH CONTROL PANEL
148-031	REMOTE ENGINE RPM INCREMENT/DECREMENT WIRING TO END OF FRAME
148-033	PRESET FAST IDLE SWITCH INTERFACE FOR FIXED SINGLE SPEED WITH WIRES BOC AND PARK BRAKE INTERLOCK
148-035	PRESET FAST IDLE SWITCH INTERFACE FOR FIXED SINGLE SPEED WITH ENGINE COMPARTMENT WIRES AND PARK BRAKE INTERLOCK
148-040	RPM INCREASE/DECREASE SWITCH INTERFACE WITH WIRES TO BACK OF CAB AND PARK BRAKE INTERLOCK
148-041	ENGINE ECM CUSTOMER ACCESS CONNECTOR MOUNTED BACK OF CAB; PARK BRAKE AND NEUTRAL INTERLOCK
148-042	ENGINE ECM CUSTOMER ACCESS CONNECTOR MOUNTED END OF FRAME; PARK BRAKE AND NEUTRAL INTERLOCK
148-043	ENGINE ECM CUSTOMER ACCESS CONNECTOR MOUNTED FORWARD; PARK BRAKE INTERLOCK
148-045	ENGINE ECM CUSTOMER ACCESS CONNECTOR MOUNTED BACK OF CAB; PARK BRAKE INTERLOCK
148-046	ENGINE ECM CUSTOMER ACCESS CONNECTOR MOUNTED FORWARD; PARK BRAKE AND NEUTRAL INTERLOCK
148-053	PROGRAMMABLE RPM CONTROL WITH LOW VOLTAGE AUTO HIGH IDLE
148-055	REMOTE ENGINE RPM INCREMENT/DECREMENT WIRING TO BACK OF CAB/SLEEPER
148-058	PROGRAMMABLE RPM CONTROL-ELECTRONIC ENGINE WITH PARK BRAKE ACTIVATED THROTTLE INHIBIT
148-065	PRESET FAST IDLE SWITCH INTERFACE FOR FIXED SINGLE SPEED WITH WIRES UNDER DASH BY ACCELERATOR AND PARK BRAKE INTERLOCK
148-070	ENGINE REMOTE INTERFACE WITH PRESET FAST IDLE
148-071	ENGINE REMOTE INTERFACE WITH INCREMENT/DECREMENT
148-072	ENGINE REMOTE INTERFACE WITH MULTIPLE SET SPEEDS
148-073	ENGINE REMOTE INTERFACE FOR REMOTE THROTTLE
148-074	ENGINE REMOTE INTERFACE NOT CONFIGURED
148-079	PROGRAMMABLE RPM CONTROL WITH AIR CONDITIONING OR 12.75V LOW VOLTAGE AUTO HIGH IDLE
148-080	EMISSIONS LIMITED PROGRAMMABLE INCREMENT/DECREMENT RPM CONTROL
148-082	EMISSIONS LIMITED HIGH IDLE SWITCH IN DASH
148-083	PROGRAMMABLE RPM CONTROL WITH LOW VOLTAGE AUTO HIGH IDLE AND RPM CONTROL SWITCHES
148-084	PROGRAMMABLE RPM CONTROL WITH AIR CONDITIONING OR 12.75V LOW VOLTAGE AUTO HIGH IDLE, DASH SWITCH
148-085	EMISSIONS LIMITED IDLE ADJUST
148-086	EMISSIONS LIMITED IDLE ADJUST - ELECTRONIC ENGINE WITH PARK BRAKE ACTIVATED THROTTLE INHIBIT
148-087	PROGRAMMABLE RPM CONTROL WITH USER SELECTABLE PTO SPEED AND PTO ON/OFF SWITCHES IN DASH
148-998	NO REMOTE ENGINE RPM CONTROL
148-999	CUSTOM ACCELERATOR HAND CONTROL



# Engine Remote Interface Location (SC 163)

## Engine Remote Interface Location

This option provides J1939 interface for the body builder to receive engine signals and can be ordered in multiple locations on the truck.  
Options apply to all models

Option	Engine Remote interface Location
163-001	ENGINE REMOTE INTERFACE CONNECTOR AT BACK OF CAB
163-002	ENGINE REMOTE INTERFACE CONNECTOR AT END OF FRAME
163-003	ENGINE REMOTE INTERFACE CONNECTOR AT END OF FRAME WITH 6 FOOT ADDITIONAL HARNESS LENGTH
163-004	ENGINE REMOTE INTERFACE CONNECTOR IN ENGINE COMPARTMENT
163-006	ENGINE REMOTE INTERFACE CONNECTOR IN CAB UNDER DASH
163-008	ENGINE REMOTE INTERFACE AT BACK OF CAB WITH BLUNT CUT WIRES
163-009	ENGINE REMOTE INTERFACE AT END OF FRAME WITH BLUNT CUT WIRES
163-010	ENGINE REMOTE INTERFACE AT END OF FRAME WITH 6 FOOT ADDITIONAL HARNESS LENGTH AND BLUNT CUT WIRES
163-011	ENGINE REMOTE INTERFACE IN ENGINE COMPARTMENT WITH BLUNT CUT WIRES
163-012	ENGINE REMOTE INTERFACE IN CAB UNDER DASH WITH BLUNT CUT WIRES
163-998	NO ENGINE OPT/RPM CONTROLS WIRING

This option provides J1939 interface at the back of cab using the Floor Track System and is only available on the **4700 Models Only**

Option	Engine Remote interface Location with Floor Track System 4700 Models
163-013	ENGINE REMOTE INTERFACE CONNECTOR IN CAB BETWEEN DRIVER AND PASSENGER SEATS



# Speed Limiters

## Maximum Road Speed Limiting (SC 79A)

Module 79A, Maximum Road Speed Limiting, is used to set maximum road speed limits for engine. The speed limit is the last 3 digits of the Option code.

Default: 79A-062 (62 mph)

OPTION	DESCRIPTION	OPTION	DESCRIPTION
79A-020	20 MPH ROAD SPEED LIMIT	79A-064	64 MPH ROAD SPEED LIMIT
79A-025	25 MPH ROAD SPEED LIMIT	79A-065	65 MPH ROAD SPEED LIMIT
79A-030	30 MPH ROAD SPEED LIMIT	79A-066	66 MPH ROAD SPEED LIMIT
79A-031	31 MPH ROAD SPEED LIMIT	79A-067	67 MPH ROAD SPEED LIMIT
79A-035	35 MPH ROAD SPEED LIMIT	79A-068	68 MPH ROAD SPEED LIMIT
79A-038	38 MPH ROAD SPEED LIMIT	79A-069	69 MPH ROAD SPEED LIMIT
79A-042	42 MPH ROAD SPEED LIMIT	79A-070	70 MPH ROAD SPEED LIMIT
79A-045	45 MPH ROAD SPEED LIMIT	79A-071	71 MPH ROAD SPEED LIMIT
79A-046	46 MPH ROAD SPEED LIMIT	79A-072	72 MPH ROAD SPEED LIMIT
79A-049	49 MPH ROAD SPEED LIMIT	79A-073	73 MPH ROAD SPEED LIMIT
79A-050	50 MPH ROAD SPEED LIMIT	79A-074	74 MPH ROAD SPEED LIMIT
79A-052	52 MPH ROAD SPEED LIMIT	79A-075	75 MPH ROAD SPEED LIMIT
79A-053	53 MPH ROAD SPEED LIMIT	79A-076	76 MPH ROAD SPEED LIMIT
79A-054	54 MPH ROAD SPEED LIMIT	79A-077	77 MPH ROAD SPEED LIMIT
79A-055	55 MPH ROAD SPEED LIMIT	79A-078	78 MPH ROAD SPEED LIMIT
79A-056	56 MPH ROAD SPEED LIMIT	79A-079	79 MPH ROAD SPEED LIMIT
79A-057	57 MPH ROAD SPEED LIMIT	79A-080	80 MPH ROAD SPEED LIMIT
79A-058	58 MPH ROAD SPEED LIMIT	79A-081	81 MPH ROAD SPEED LIMIT
79A-059	59 MPH ROAD SPEED LIMIT	79A-082	82 MPH ROAD SPEED LIMIT
79A-060	60 MPH ROAD SPEED LIMIT	79A-083	83 MPH ROAD SPEED LIMIT
79A-061	61 MPH ROAD SPEED LIMIT	79A-084	84 MPH ROAD SPEED LIMIT
79A-062	62 MPH ROAD SPEED LIMIT	79A-085	85 MPH ROAD SPEED LIMIT
79A-063	63 MPH ROAD SPEED LIMIT	79A-998	NO ROAD SPEED LIMIT
79A-999	CUSTOM TRUCK PRODUCTIVITY COMPUTER		



# Speed Limiters

## Cruise Control (SC 79B)

The 79B, Cruise Control, option is used to set Cruise Control speed limits for the engine (same as RSL). Replaces EC3. Requires Cruise Control.

Default: Specpro Option is 79B-000

OPTION	DESCRIPTION
79B-001	CRUISE CONTROL SPEED LIMIT 1 MPH HIGHER THAN ROAD SPEED LIMIT
79B-002	CRUISE CONTROL SPEED LIMIT 2 MPH HIGHER THAN ROAD SPEED LIMIT
79B-003	CRUISE CONTROL SPEED LIMIT 3 MPH HIGHER THAN ROAD SPEED LIMIT
79B-021	CRUISE CONTROL SPEED LIMIT 4 MPH HIGHER THAN ROAD SPEED LIMIT
79B-018	CRUISE CONTROL SPEED LIMIT 5 MPH HIGHER THAN ROAD SPEED LIMIT
79B-004	CRUISE CONTROL SPEED LIMIT 1 MPH LOWER THAN ROAD SPEED LIMIT
79B-005	CRUISE CONTROL SPEED LIMIT 2 MPH LOWER THAN ROAD SPEED LIMIT
79B-013	CRUISE CONTROL SPEED LIMIT 5 MPH LOWER THAN ROAD SPEED LIMIT
79B-015	CRUISE CONTROL SPEED LIMIT 3 MPH LOWER THAN ROAD SPEED LIMIT
79B-019	CRUISE CONTROL SPEED LIMIT 4 MPH LOWER THAN ROAD SPEED LIMIT
79B-010	CRUISE CONTROL SPEED LIMIT 1 MPH LOWER THAN ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-011	CRUISE CONTROL SPEED LIMIT 2 MPH LOWER THAN ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-017	CRUISE CONTROL SPEED LIMIT 3 MPH LOWER THAN ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-023	CRUISE CONTROL SPEED LIMIT 5 MPH LOWER THAN ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-026	CRUISE CONTROL SPEED LIMIT 4 MPH LOWER THAN ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-007	CRUISE CONTROL SPEED LIMIT 1 MPH HIGHER THAN ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-008	CRUISE CONTROL SPEED LIMIT 2 MPH HIGHER THAN ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-009	CRUISE CONTROL SPEED LIMIT 3 MPH HIGHER THAN ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-016	CRUISE CONTROL SPEED LIMIT 4 MPH HIGHER THAN ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-022	CRUISE CONTROL SPEED LIMIT 5 MPH HIGHER THAN ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-006	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT
79B-012	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT, WITH AUTO RESUME AFTER SHIFT AND SET SPEED SAVE
79B-014	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT AND SET SPEED SAVE
79B-000	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT
79B-024	CRUISE CONTROL SPEED LIMIT 4 MPH HIGHER THAN ROAD SPEED LIMIT AND SET SPEED SAVE
79B-025	CRUISE CONTROL SPEED LIMIT 2 MPH HIGHER THAN ROAD SPEED LIMIT AND SET SPEED SAVE
79B-020	CRUISE CONTROL SPEED LIMIT 75 MPH MAX ALLOWED
79B-998	NO CRUISE CONTROL SPEED LIMIT
79B-999	CUSTOM TRUCK PC FLASH CARDS



# Speed Limiters



## Driver Fuel Economy Incentive (SC 79C)

The 79C, Driver Fuel Economy Incentive, option is used by customers to select the programming of fuel economy incentive parameters that may be available on electronically-controlled EPA 2010 engines introduced after 1 January 2010. The system measures the engine's actual fuel economy and adjusts the vehicle speed governor based on the vehicle driver's attainment of fuel economy greater than a customer-defined minimum.2010. The system measures the engine's actual fuel economy and adjusts the vehicle speed governor based on the vehicle driver's attainment of fuel economy greater than a customer-defined minimum.

OPTION	DESCRIPTION
79C-009	3 MPH MAX INCENTIVE AT 6.5 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-010	6 MPH MAX INCENTIVE AT 6.5 TARGET MPG WITH 20 MPH/MPG FACTOR
79C-011	2.24 MPH MAX INCENTIVE AT 6.8 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-005	3 MPH MAX INCENTIVE AT 6.8 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-006	4 MPH MAX INCENTIVE AT 6.8 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-007	5 MPH MAX INCENTIVE AT 6.8 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-001	2 MPH MAX INCENTIVE AT 7.0 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-002	3 MPH MAX INCENTIVE AT 7.0 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-003	4 MPH MAX INCENTIVE AT 7.0 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-004	5 MPH MAX INCENTIVE AT 7.0 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-021	5 MPH MAX INCENTIVE AT 7.2 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-027	3 MPH MAX INCENTIVE AT 7.5 TARGET MPG WITH 2 MPH/MPG FACTOR
79C-024	2 MPH MAX INCENTIVE AT 7.8 TARGET MPG WITH 5 MPH/MPG FACTOR
79C-018	PASSMART ENABLED WITH 2 MPH LIMIT FOR 20 MINUTES IN 24 HOURS
79C-022	PASSMART ENABLED WITH 2 MPH LIMIT FOR 60 MINUTES IN 24 HOURS
79C-026	PASSMART ENABLED WITH 2 MPH LIMIT FOR 120 MINUTES IN 24 HOURS
79C-019	PASSMART ENABLED WITH 3 MPH LIMIT FOR 15 MINUTES IN 8 HOURS
79C-023	PASSMART ENABLED WITH 3 MPH LIMIT FOR 45 MINUTES IN 10 HOURS
79C-020	PASSMART ENABLED WITH 3 MPH LIMIT FOR 120 MINUTES IN 24 HOURS
79C-012	PASSMART ENABLED WITH 5 MPH LIMIT FOR 30 MINUTES IN 12 HOURS
79C-008	PASSMART ENABLED WITH 5 MPH LIMIT FOR 30 MINUTES IN 24 HOURS
79C-017	PASSMART ENABLED WITH 5 MPH LIMIT FOR 60 MINUTES IN 24 HOURS
79C-015	PASSMART ENABLED WITH 5 MPH LIMIT FOR 120 MINUTES IN 24 HOURS
79C-014	PASSMART ENABLED WITH 5 MPH LIMIT FOR 255 MINUTES IN 24 HOURS
79C-025	PASSMART ENABLED WITH 6 MPH LIMIT FOR 20 MINUTES IN 24 HOURS
79C-016	PASSMART ENABLED WITH 7 MPH LIMIT FOR 30 MINUTES IN 24 HOURS
79C-028	PASSMART ENABLED WITH 10 MPH LIMIT FOR 240 MINUTES IN 24 HOURS
79C-013	CUMMINS DRIVER RESERVE SPEED - 5 MPH FOR 60 MILES
79C-998	NO DRIVER FUEL ECONOMY INCENTIVE
79C-999	CUSTOM TRUCK PC MODEM



# Engine Control

## Low Range Torque Protect (SC 79E)

Module 79E, Low Range Torque Protect, contains Option codes that automates selection of the low range torque protection process for combinations that usually require this feature.

Low range: also known as low gear refers to the lowest gears in a transmission. For purposes of this reference, low gears are those gears capable of producing a multiplied torque output that exceeds the torque rating of the driveline or rear axle components (or, in some cases, auxiliary transmissions or transfer cases). Torque protect is designed as a derating scheme where the engine's torque output is reduced, usually to allow components with lower torque ratings to be used in the driveline and/or rear axle without failing.

This option usually includes an automated "decision point" at after which the derating is not required and discontinued.

### Performance

When low range torque protection is enabled, a vehicle will accelerate more slowly than a similar vehicle without the feature, due to the reduced torque output.

When the vehicle speed is sufficient to ensure that torque multiplication by the transmission is not higher than the input torque rating of other drivetrain components, torque derating will be discontinued.

\*Note\*: Customers who want high torque and quick response at low speeds need to pay close attention to drivetrain component selections. Once components are defined torque limiting cannot be shut off.

OPTION	DESCRIPTION
79E-061	GEAR DOWN PROTECTION ENABLED, 52 MPH LIGHT LOAD, 60 MPH HEAVY LOAD SPEEDS
79E-057	GEAR DOWN PROTECTION ENABLED, 53 MPH LIGHT AND HEAVY LOAD SPEEDS
79E-026	GEAR DOWN PROTECTION ENABLED, 53 MPH LIGHT LOAD, 55 MPH HEAVY LOAD SPEEDS
79E-064	GEAR DOWN PROTECTION ENABLED, 53 MPH LIGHT LOAD, 55 MPH HEAVY LOAD SPEEDS AND LIMIT BY AXLE, 16500 FT-LB
79E-058	GEAR DOWN PROTECTION ENABLED, 53 MPH LIGHT LOAD, 58 MPH HEAVY LOAD SPEEDS
79E-025	GEAR DOWN PROTECTION ENABLED, 53 MPH LIGHT LOAD, 65 MPH HEAVY LOAD SPEEDS
79E-068	GEAR DOWN PROTECTION ENABLED, 53 MPH LIGHT LOAD, 61 MPH HEAVY LOAD SPEEDS
79E-005	GEAR DOWN PROTECTION ENABLED, 54 MPH LIGHT LOAD, 58 MPH HEAVY LOAD SPEEDS
79E-065	GEAR DOWN PROTECTION ENABLED, 54 MPH LIGHT LOAD, 58 MPH HEAVY LOAD SPEEDS AND LIMIT BY AXLE, 9800 FT-LB
79E-029	GEAR DOWN PROTECTION ENABLED, 54 MPH LIGHT LOAD, 61 MPH HEAVY LOAD SPEEDS
79E-055	GEAR DOWN PROTECTION ENABLED, 55 MPH LIGHT LOAD, 58 MPH HEAVY LOAD SPEEDS
79E-024	GEAR DOWN PROTECTION ENABLED, 55 MPH LIGHT LOAD, 59 MPH HEAVY LOAD SPEEDS
79E-039	GEAR DOWN PROTECTION ENABLED, 55 MPH LIGHT LOAD, 60 MPH HEAVY LOAD SPEEDS
79E-021	GEAR DOWN PROTECTION ENABLED, 55 MPH LIGHT LOAD, 62 MPH HEAVY LOAD SPEEDS
79E-045	GEAR DOWN PROTECTION ENABLED, 55 MPH LIGHT LOAD, 64 MPH HEAVY LOAD SPEEDS
79E-042	GEAR DOWN PROTECTION ENABLED, 58 MPH LIGHT LOAD, 58 MPH HEAVY LOAD SPEEDS
79E-028	GEAR DOWN PROTECTION ENABLED, 59 MPH LIGHT LOAD, 64 MPH HEAVY LOAD SPEEDS
79E-056	GEAR DOWN PROTECTION ENABLED, 62 MPH LIGHT LOAD, 65 MPH HEAVY LOAD SPEEDS
79E-002	LIMIT DEFINED BY AUTOMATIC TRANSMISSION
79E-003	LIMIT TO ENGINE RATING MINUS 100 LB-FT IN ALL GEARS
79E-004	LIMIT TO ENGINE RATING MINUS 100 LB-FT IN ALL GEARS EXCEPT TOP 2
79E-006	LIMIT TO ENGINE RATING MINUS 200 LB-FT IN ALL GEARS EXCEPT TOP 2
79E-037	LIMIT DEFINED BY AWD TRANSFER CASE, ENGINE OUTPUT TORQUE LIMITATION OF 550 LB-F
79E-060	LIMIT DEFINED BY AWD TRANSFER CASE, ENGINE OUTPUT TORQUE LIMITATION OF 800 LB-F
79E-049	LIMIT DEFINED BY AWD TRANSFER CASE, ENGINE OUTPUT TORQUE LIMITATION OF 850 LB-F
79E-046	LIMIT DEFINED BY AWD TRANSFER CASE, 3640 FT-LB
79E-007	LIMIT DEFINED BY AWD TRANSFER CASE, 7500 FT-LB
79E-059	LIMIT DEFINED BY AWD TRANSFER CASE, 11,600 FT-LB
79E-069	LIMIT DEFINED BY FRONT AXLE, 3750 FT-LB
79E-001	LIMIT DEFINED BY DRIVE AXLE
79E-041	LIMIT DEFINED BY AXLE, 2500 FT-LB
79E-066	LIMIT DEFINED BY AXLE, 3200 FT-LB
79E-050	LIMIT DEFINED BY AXLE, 3600 FT-LB



# Engine Control

## Low Range Torque Protect (SC 79E)

Module 79E, Low Range Torque Protect, contains Option codes that automates selection of the low range torque protection process for combinations that usually require this feature.

Low range: also known as low gear refers to the lowest gears in a transmission. For purposes of this reference, low gears are those gears capable of producing a multiplied torque output that exceeds the torque rating of the driveline or rear axle components (or, in some cases, auxiliary transmissions or transfer cases). Torque protect is designed as a derating scheme where the engine's torque output is reduced, usually to allow components with lower torque ratings to be used in the driveline and/or rear axle without failing.

This option usually includes an automated "decision point" at after which the derating is not required and discontinued.

### Performance

When low range torque protection is enabled, a vehicle will accelerate more slowly than a similar vehicle without the feature, due to the reduced torque output.

When the vehicle speed is sufficient to ensure that torque multiplication by the transmission is not higher than the input torque rating of other drivetrain components, torque derating will be discontinued.

\*Note\*: Customers who want high torque and quick response at low speeds need to pay close attention to drivetrain component selections. Once components are defined torque limiting cannot be shut off.

OPTION	DESCRIPTION
79E-040	LIMIT DEFINED BY AXLE, 3700 FT-LB
79E-052	LIMIT DEFINED BY AXLE, 3800 FT-LB
79E-009	LIMIT DEFINED BY AXLE, 3900 FT-LB
79E-013	LIMIT DEFINED BY AXLE, 4000 FT-LB
79E-014	LIMIT DEFINED BY AXLE, 4500 FT-LB
79E-032	LIMIT DEFINED BY AXLE, 4600 FT-LB
79E-023	LIMIT DEFINED BY AXLE, 4700 FT-LB
79E-047	LIMIT DEFINED BY AXLE, 4900 FT-LB
79E-034	LIMIT DEFINED BY AXLE, 5000 FT-LB
79E-011	LIMIT DEFINED BY AXLE, 5400 FT-LB
79E-033	LIMIT DEFINED BY AXLE, 5800 FT-LB
79E-010	LIMIT DEFINED BY AXLE, 5900 FT-LB
79E-012	LIMIT DEFINED BY AXLE, 6100 FT-LB
79E-015	LIMIT DEFINED BY AXLE, 6200 FT-LB
79E-016	LIMIT DEFINED BY AXLE, 7100 FT-LB
79E-035	LIMIT DEFINED BY AXLE, 7200 FT-LB
79E-038	LIMIT DEFINED BY AXLE, 7500 FT-LB
79E-020	LIMIT DEFINED BY AXLE, 8200 FT-LB
79E-031	LIMIT DEFINED BY AXLE, 9000 FT-LB
79E-017	LIMIT DEFINED BY AXLE, 9500 FT-LB
79E-018	LIMIT DEFINED BY AXLE, 9800 FT-LB
79E-019	LIMIT DEFINED BY AXLE, 10200 FT-LB
79E-044	LIMIT DEFINED BY AXLE, 10800 FT-LB
79E-054	LIMIT DEFINED BY AXLE, 11000 FT-LB
79E-027	LIMIT DEFINED BY AXLE, 11200 FT-LB
79E-022	LIMIT DEFINED BY AXLE, 11300 FT-LB
79E-053	LIMIT DEFINED BY AXLE, 11500 FT-LB
79E-043	LIMIT DEFINED BY AXLE, 12220 FT-LB
79E-051	LIMIT DEFINED BY AXLE, 12900 FT-LB
79E-062	LIMIT DEFINED BY AXLE, 16500 FT-LB
79E-048	LIMIT DEFINED BY AXLE, 17300 FT-LB
79E-036	LIMIT DEFINED BY AXLE, 20800 FT-LB



# Engine Control

## Idle Shut Down (SC 79G)

Module 79G, Idle Shut Down, controls the configuration of the engine's idle shutdown configuration, including the number of minutes before shutdown and whether or not the driver is allowed to override the shutdown using the clutch or service brake pedals. For some engines, the driver override feature specified for the idle shutdown must also be applied to the PTO shutdown feature, if that feature is specified. This requirement creates a linkage between modules 79G and 79J that will be enforced through compatibility rules.

### Definitions

The idle shutdown feature is affected by the engine's PTO governor. In most vehicles, the PTO governor is enabled by default, to allow a driver to change engine speed using the Cruise Control switches. When checking the operation of the idle shutdown, ensure that the cruise control on/off switch has been turned off.

OPTION	DESCRIPTION
79G-041	0.25 MINUTE IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-015	2 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-029	2 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-016	2 MINUTE IDLE SHUTDOWN WITH EDGE TRIGGERED ACCEL PEDAL WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-017	2 MINUTE IDLE SHUTDOWN WITH EDGE TRIGGERED ACCEL PEDAL WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-113	2 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE
79G-120	2 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE
79G-001	3 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-027	3 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE, 10% MAXIMUM ENGINE LOAD
79G-039	3 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE, 20% MAXIMUM ENGINE LOAD
79G-042	3 MINUTES IDLE SHUTDOWN WITHOUT PARK BRAKE STATUS WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-002	3 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-018	3 MINUTE IDLE SHUTDOWN WITH EDGE TRIGGERED ACCEL PEDAL WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-019	3 MINUTE IDLE SHUTDOWN WITH EDGE TRIGGERED ACCEL PEDAL WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-100	3 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE
79G-118	3 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE, 10% MAXIMUM ENGINE LOAD
79G-101	3 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE
79G-122	3 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE WITH PARK BRAKE ENABLE ONLY
79G-003	4 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-004	4 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-032	4 MINUTE IDLE SHUTDOWN WITH EDGE TRIGGERED ACCEL PEDAL WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-036	4 MINUTE IDLE SHUTDOWN WITH EDGE TRIGGERED ACCEL PEDAL; WITHOUT CLUTCH AND SERVICE BRAKE WITH VEHICLE SPEED, THROTTLE PEDAL, CONTINUOUS, SEO OVERRIDE
79G-102	4 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE
79G-103	4 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE
79G-005	5 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-013	5 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE, 10% MAXIMUM ENGINE LOAD
79G-022	5 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE, 19% MAXIMUM ENGINE LOAD
79G-028	5 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE, 30% MAXIMUM ENGINE LOAD
79G-034	5 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE, 100% MAXIMUM ENGINE LOAD
79G-025	5 MINUTES IDLE SHUTDOWN WITHOUT PARK BRAKE, CLUTCH AND SERVICE BRAKE OVERRIDE, 10% MAXIMUM ENGINE LOAD
79G-014	5 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE WITH PARK BRAKE ENABLE ONLY
79G-006	5 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-031	5 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE, 10% MAXIMUM ENGINE LOAD
79G-026	5 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE, 20% MAXIMUM ENGINE LOAD
79G-021	5 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE WITHOUT PARK BRAKE STATUS



# Engine Control

## Idle Shut Down (SC 79G)

Module 79G, Idle Shut Down, controls the configuration of the engine's idle shutdown configuration, including the number of minutes before shutdown and whether or not the driver is allowed to override the shutdown using the clutch or service brake pedals. For some engines, the driver override feature specified for the idle shutdown must also be applied to the PTO shutdown feature, if that feature is specified. This requirement creates a linkage between modules 79G and 79J that will be enforced through compatibility rules.

### Definitions

The idle shutdown feature is affected by the engine's PTO governor. In most vehicles, the PTO governor is enabled by default, to allow a driver to change engine speed using the Cruise Control switches. When checking the operation of the idle shutdown, ensure that the cruise control on/off switch has been turned off.

OPTION	DESCRIPTION
79G-023	5 MINUTE IDLE SHUTDOWN WITH EDGE TRIGGERED ACCEL PEDAL WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-024	5 MINUTE IDLE SHUTDOWN WITH EDGE TRIGGERED ACCEL PEDAL WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-104	5 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE
79G-112	5 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE, 10% MAXIMUM ENGINE LOAD
79G-116	5 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE, 19% MAXIMUM ENGINE LOAD
79G-119	5 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE, 30% MAXIMUM ENGINE LOAD
79G-123	5 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE, 100% MAXIMUM ENGINE LOAD
79G-114	5 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE WITH PARK BRAKE ENABLE ONLY
79G-105	5 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE
79G-121	5 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE, 10% MAXIMUM ENGINE LOAD
79G-117	5 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE, 20% MAXIMUM ENGINE LOAD
79G-007	10 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-008	10 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-038	10 MINUTE IDLE SHUTDOWN WITH EDGE TRIGGERED ACCEL PEDAL WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-106	10 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE
79G-126	10 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE, 30% MAXIMUM ENGINE LOAD
79G-107	10 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE
79G-011	15 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-037	15 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE, 19% MAXIMUM ENGINE LOAD
79G-012	15 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-110	15 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE
79G-125	15 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE, 19% MAXIMUM ENGINE LOAD
79G-111	15 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE
79G-009	20 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-035	20 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE, 100% MAXIMUM ENGINE LOAD
79G-010	20 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-108	20 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE
79G-124	20 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE, 100% MAXIMUM ENGINE LOAD
79G-109	20 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE
79G-020	30 MINUTES IDLE SHUTDOWN WITHOUT CLUTCH AND SERVICE BRAKE OVERRIDE
79G-040	30 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-115	30 MINUTE IDLE SHUTDOWN - TIMER RESET WITH CLUTCH AND SERVICE BRAKE
79G-127	30 MINUTE IDLE SHUTDOWN - CONTINUOUS OVERRIDE WITH CLUTCH AND SERVICE BRAKE
79G-030	83 MINUTES IDLE SHUTDOWN WITH CLUTCH AND SERVICE BRAKE OVERRIDE
79G-998	NO IDLE SHUTDOWN CONFIGURATION



# Engine Control

## PTO Shutdown (SC 79J)

Module 79J, PTO Shutdown, defines the amount of time the engine will run when the engine's PTO governor is enabled. These codes also allow customers to specify whether or not the driver should have the ability to override the feature with the clutch or service brake pedal. 79J options maintain an engine speed that is activated by a switch external to the engine controller. PTO Shutdown: a feature that provides a preselected timer for shutting down an engine when the engine is operating in its PTO governor mode.

### Performance

An engine's PTO governor may be enabled by several different means. Most commonly, the PTO governor can be activated by a vehicle's cruise control switches as long as the vehicle is parked or moving at a speed below the lesser of the minimum cruise control set speed or the PTO mode kickout vehicle speed. The PTO shutdown timer will be active only when the PTO governor is active.

The PTO shutdown timer can be enabled independently of the idle shutdown timer feature (i.e., both are not required to be active). The PTO shutdown timer can be set to a different shutdown time than the 79G idle shutdown timer. However, the PTO shutdown timer and idle shutdown timer usually share the same settings for the override.

Option	Description
79J-041	0.25 MINUTE PTO SHUTDOWN WITH CLUTCH AND BRAKE OVERRIDE
79J-008	3 MINUTES PTO SHUTDOWN WITH CLUTCH AND BRAKE OVERRIDE
79J-042	3 MINUTES PTO SHUTDOWN WITH CLUTCH AND BRAKE OVERRIDE WITHOUT PARK BRAKE STATUS
79J-010	4 MINUTES PTO SHUTDOWN WITH CLUTCH AND BRAKE OVERRIDE
79J-002	5 MINUTES PTO SHUTDOWN WITH CLUTCH AND BRAKE OVERRIDE
79J-021	5 MINUTES PTO SHUTDOWN WITH CLUTCH AND BRAKE OVERRIDE WITHOUT PARK BRAKE STATUS
79J-004	10 MINUTES PTO SHUTDOWN WITH CLUTCH AND BRAKE OVERRIDE
79J-006	15 MINUTES PTO SHUTDOWN WITH CLUTCH AND BRAKE OVERRIDE
79J-012	20 MINUTES PTO SHUTDOWN WITH CLUTCH AND BRAKE OVERRIDE
79J-018	30 MINUTES PTO SHUTDOWN WITH CLUTCH AND BRAKE OVERRIDE
79J-007	3 MINUTES PTO SHUTDOWN WITHOUT CLUTCH AND BRAKE OVERRIDE
79J-009	4 MINUTES PTO SHUTDOWN WITHOUT CLUTCH AND BRAKE OVERRIDE
79J-001	5 MINUTES PTO SHUTDOWN WITHOUT CLUTCH AND BRAKE OVERRIDE
79J-003	10 MINUTES PTO SHUTDOWN WITHOUT CLUTCH AND BRAKE OVERRIDE
79J-005	15 MINUTES PTO SHUTDOWN WITHOUT CLUTCH AND BRAKE OVERRIDE
79J-011	20 MINUTES PTO SHUTDOWN WITHOUT CLUTCH AND BRAKE OVERRIDE
79J-013	2 MINUTE PTO SHUTDOWN WITH EDGE TRIGGERED ACCELERATOR PEDAL WITHOUT CLUTCH AND BRAKE OVERRIDE
79J-014	2 MINUTE PTO SHUTDOWN WITH EDGE TRIGGERED ACCELERATOR PEDAL WITH CLUTCH AND BRAKE OVERRIDE
79J-015	3 MINUTE PTO SHUTDOWN WITH EDGE TRIGGERED ACCELERATOR PEDAL WITHOUT CLUTCH AND BRAKE OVERRIDE
79J-016	3 MINUTE PTO SHUTDOWN WITH EDGE TRIGGERED ACCELERATOR PEDAL WITH CLUTCH AND BRAKE OVERRIDE
79J-023	5 MINUTE PTO SHUTDOWN WITH EDGE TRIGGERED ACCELERATOR PEDAL WITHOUT CLUTCH AND BRAKE OVERRIDE
79J-024	5 MINUTE PTO SHUTDOWN WITH EDGE TRIGGERED ACCELERATOR PEDAL WITH CLUTCH AND BRAKE OVERRIDE
79J-036	4 MINUTE PTO SHUTDOWN WITH EDGE TRIGGERED ACCELERATOR PEDAL; WITHOUT CLUTCH AND BRAKE WITH VEHICLE SPEED, THROTTLE PEDAL, CONTINUOUS, SEO OVERRIDE
79J-100	PTO SHUTDOWN ENABLE FOR CUMMINS ENGINES
79J-998	NO PTO SHUTDOWN CONFIGURATION



# Engine Control

## PTO Mode Engine RPM Limit & Throttle Override (SC 79K)

Module 79K, PTO Mode Engine RPM Limit, limits engine speed when PTO mode is activated by a driver. Operation of this RPM limit may be verified if the engine controller has been configured to allow cruise control switches to activate PTO mode. Since DTNA products are usually not delivered with wiring for other methods of activating the PTO mode, this setting may not be verifiable under all circumstances.

Eaton Ultrashift transmissions without the electric clutch actuator (ECA) feature are limited to 900 RPM to avoid clutch damage.

OPTION	DESCRIPTION	OPTION	DESCRIPTION
79K-998	NO PTO MODE ENGINE RPM LIMIT	79K-011	PTO MODE ENGINE RPM LIMIT - 1400 RPM
79K-001	PTO MODE ENGINE RPM LIMIT - 600 RPM	79K-022	PTO MODE ENGINE RPM LIMIT - 1450 RPM
79K-002	PTO MODE ENGINE RPM LIMIT - 700 RPM	79K-012	PTO MODE ENGINE RPM LIMIT - 1500 RPM
79K-019	PTO MODE ENGINE RPM LIMIT - 750 RPM	79K-018	PTO MODE ENGINE RPM LIMIT - 1550 RPM
79K-003	PTO MODE ENGINE RPM LIMIT - 800 RPM	79K-013	PTO MODE ENGINE RPM LIMIT - 1600 RPM
79K-004	PTO MODE ENGINE RPM LIMIT - 850 RPM	79K-031	PTO MODE ENGINE RPM LIMIT - 1650 RPM
79K-024	PTO MODE ENGINE RPM LIMIT - 875 RPM	79K-020	PTO MODE ENGINE RPM LIMIT - 1700 RPM
79K-005	PTO MODE ENGINE RPM LIMIT - 900 RPM	79K-026	PTO MODE ENGINE RPM LIMIT - 1770 RPM
79K-033	PTO MODE ENGINE RPM LIMIT - 950 RPM	79K-014	PTO MODE ENGINE RPM LIMIT - 1800 RPM
79K-006	PTO MODE ENGINE RPM LIMIT - 1000 RPM	79K-032	PTO MODE ENGINE RPM LIMIT - 1850 RPM
79K-029	PTO MODE ENGINE RPM LIMIT - 1075 RPM	79K-034	PTO MODE ENGINE RPM LIMIT - 1900 RPM
79K-007	PTO MODE ENGINE RPM LIMIT - 1100 RPM	79K-016	PTO MODE ENGINE RPM LIMIT - 2000 RPM
79K-023	PTO MODE ENGINE RPM LIMIT - 1125 RPM	79K-015	PTO MODE ENGINE RPM LIMIT - 2100 RPM
79K-008	PTO MODE ENGINE RPM LIMIT - 1150 RPM	79K-027	PTO MODE ENGINE RPM LIMIT - 2200 RPM
79K-009	PTO MODE ENGINE RPM LIMIT - 1200 RPM	79K-017	PTO MODE ENGINE RPM LIMIT - 2300 RPM
79K-025	PTO MODE ENGINE RPM LIMIT - 1250 RPM	79K-028	PTO MODE ENGINE RPM LIMIT - 2400 RPM
79K-010	PTO MODE ENGINE RPM LIMIT - 1300 RPM	79K-030	PTO MODE ENGINE RPM LIMIT - 2600 RPM
79K-021	PTO MODE ENGINE RPM LIMIT - 1350 RPM		

Module 79L, PTO Mode Throttle Override, has sales codes that allow customers to determine whether or not the cab throttle (accelerator) pedal should be able to override the engine's PTO mode.

When throttle override of PTO mode is enabled, the cab throttle is capable of increasing the engine's speed above the speed currently being maintained by the PTO mode governor. The upper limit of the throttle override is usually programmable and is also usually limited to the PTO mode maximum engine RPM value. If the cab throttle is used to increase engine RPM, releasing the cab throttle will return the engine speed to the previously set value unless PTO mode is deactivated.

OPTION	DESCRIPTION
79L-998	PTO MODE THROTTLE OVERRIDE DISABLED
79L-001	PTO MODE THROTTLE OVERRIDE - LIMIT TO 800 RPM
79L-002	PTO MODE THROTTLE OVERRIDE - LIMIT TO 900 RPM
79L-003	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1000 RPM
79L-004	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1050 RPM
79L-005	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1100 RPM
79L-006	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1150 RPM
79L-007	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1200 RPM
79L-008	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1250 RPM
79L-009	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1300 RPM
79L-010	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1350 RPM
79L-011	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1400 RPM
79L-016	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1500 RPM
79L-017	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1600 RPM
79L-018	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1700 RPM
79L-014	PTO MODE THROTTLE OVERRIDE - LIMIT TO 1800 RPM
79L-015	PTO MODE THROTTLE OVERRIDE - LIMIT TO 2000 RPM
79L-019	PTO MODE THROTTLE OVERRIDE - LIMIT TO 2300 RPM
79L-020	PTO MODE THROTTLE OVERRIDE - LIMIT TO 2600 RPM
79L-012	PTO MODE THROTTLE OVERRIDE - LIMIT TO 3000 RPM



# Engine Control

## PTO Mode Brake Override & PTO Mode Clutch Override (SC 79M)

### 79M - PTO Mode Brake Override

Module 79M has sales codes used by customers to determine the setting of the PTO mode brake override parameter(s).

When the PTO mode is engaged application of vehicle brakes disengages the PTO mode governor. Operation of brake override functionality can be determined by applying or releasing, as appropriate, the brake control(s) that should override the governor.

### 79N - PTO Mode Clutch Override

Module 79N has sales codes used by customers to determine the setting of the PTO mode clutch override parameter.

When the PTO mode is engaged depressing the clutch pedal disengages the PTO mode governor. This override is only available for vehicles with a manual transmission or a three-pedal automated manual transmission.

<b>79M - PTO MODE BRAKE OVERRIDE</b>	
<b>OPTION</b>	<b>DESCRIPTION</b>
79M-001	PTO MODE BRAKE OVERRIDE - SERVICE BRAKE APPLIED
79M-002	PTO MODE BRAKE OVERRIDE - SERVICE BRAKE APPLIED OR PARK BRAKE NOT APPLIED
79M-003	PTO MODE BRAKE OVERRIDE - PARK BRAKE NOT APPLIED
79M-998	PTO MODE BRAKE OVERRIDE - DISABLED
<b>79-N - PTO MODE RPM WITH CRUISE SET SWITCH</b>	
<b>OPTION</b>	<b>DESCRIPTION</b>
79N-001	PTO MODE CLUTCH OVERRIDE - CLUTCH ENABLED
79N-998	NO PTO MODE CLUTCH OVERRIDE



# Engine Control

## PTO RPM with Cruise Set Switch (SC 79P)

Module 79P, PTO RPM With Cruise Set Switch, has sales codes used by customers to determine the setting of the PTO mode governor speed when the Cruise Control set switch is pressed momentarily.

OPTION	DESCRIPTION	OPTION	DESCRIPTION
79P-998	NO PTO RPM WITH CRUISE SET SWITCH	79P-008	PTO RPM WITH CRUISE SET SWITCH - 1150 RPM
79P-001	PTO RPM WITH CRUISE SET SWITCH - 600 RPM	79P-009	PTO RPM WITH CRUISE SET SWITCH - 1200 RPM
79P-018	PTO RPM WITH CRUISE SET SWITCH - 625 RPM	79P-020	PTO RPM WITH CRUISE SET SWITCH - 1250 RPM
79P-002	PTO RPM WITH CRUISE SET SWITCH - 700 RPM	79P-023	PTO RPM WITH CRUISE SET SWITCH - 1300 RPM
79P-013	PTO RPM WITH CRUISE SET SWITCH - 750 RPM	79P-016	PTO RPM WITH CRUISE SET SWITCH - 1325 RPM
79P-003	PTO RPM WITH CRUISE SET SWITCH - 800 RPM	79P-019	PTO RPM WITH CRUISE SET SWITCH - 1350 RPM
79P-011	PTO RPM WITH CRUISE SET SWITCH - 825 RPM	79P-021	PTO RPM WITH CRUISE SET SWITCH - 1400 RPM
79P-012	PTO RPM WITH CRUISE SET SWITCH - 850 RPM	79P-028	PTO RPM WITH CRUISE SET SWITCH - 1450 RPM
79P-022	PTO RPM WITH CRUISE SET SWITCH - 890 RPM	79P-014	PTO RPM WITH CRUISE SET SWITCH - 1500 RPM
79P-004	PTO RPM WITH CRUISE SET SWITCH - 900 RPM	79P-029	PTO RPM WITH CRUISE SET SWITCH - 1550 RPM
79P-010	PTO RPM WITH CRUISE SET SWITCH - 950 RPM	79P-030	PTO RPM WITH CRUISE SET SWITCH - 1650 RPM
79P-024	PTO RPM WITH CRUISE SET SWITCH - 975 RPM	79P-017	PTO RPM WITH CRUISE SET SWITCH - 1800 RPM
79P-005	PTO RPM WITH CRUISE SET SWITCH - 1000 RPM	79P-025	PTO RPM WITH CRUISE SET SWITCH - 1900 RPM
79P-006	PTO RPM WITH CRUISE SET SWITCH - 1050 RPM	79P-026	PTO RPM WITH CRUISE SET SWITCH - 2000 RPM
79P-007	PTO RPM WITH CRUISE SET SWITCH - 1100 RPM	79P-027	PTO RPM WITH CRUISE SET SWITCH - 2100 RPM
79P-015	PTO RPM WITH CRUISE SET SWITCH - 1125 RPM		



# Engine Control

## PTO RPM with Cruise Resume Switch (SC 79Q)

Module 79Q, PTO RPM With Cruise Resume Switch, has sales codes used by customers to determine the setting of the PTO mode governor speed when the Cruise Control resume switch is pressed momentarily.

OPTION	DESCRIPTION	OPTION	DESCRIPTION
79Q-998	NO PTO RPM WITH CRUISE RESUME SWITCH	79Q-008	PTO RPM WITH CRUISE RESUME SWITCH - 1150 RPM
79Q-001	PTO RPM WITH CRUISE RESUME SWITCH - 600 RPM	79Q-009	PTO RPM WITH CRUISE RESUME SWITCH - 1200 RPM
79Q-002	PTO RPM WITH CRUISE RESUME SWITCH - 700 RPM	79Q-010	PTO RPM WITH CRUISE RESUME SWITCH - 1250 RPM
79Q-016	PTO RPM WITH CRUISE RESUME SWITCH - 750 RPM	79Q-011	PTO RPM WITH CRUISE RESUME SWITCH - 1300 RPM
79Q-003	PTO RPM WITH CRUISE RESUME SWITCH - 800 RPM	79Q-018	PTO RPM WITH CRUISE RESUME SWITCH - 1350 RPM
79Q-014	PTO RPM WITH CRUISE RESUME SWITCH - 825 RPM	79Q-012	PTO RPM WITH CRUISE RESUME SWITCH - 1400 RPM
79Q-015	PTO RPM WITH CRUISE RESUME SWITCH - 850 RPM	79Q-017	PTO RPM WITH CRUISE RESUME SWITCH - 1500 RPM
79Q-019	PTO RPM WITH CRUISE RESUME SWITCH - 890 RPM	79Q-029	PTO RPM WITH CRUISE RESUME SWITCH - 1550 RPM
79Q-004	PTO RPM WITH CRUISE RESUME SWITCH - 900 RPM	79Q-024	PTO RPM WITH CRUISE RESUME SWITCH - 1600 RPM
79Q-013	PTO RPM WITH CRUISE RESUME SWITCH - 950 RPM	79Q-026	PTO RPM WITH CRUISE RESUME SWITCH - 1750 RPM
79Q-020	PTO RPM WITH CRUISE RESUME SWITCH - 975 RPM	79Q-023	PTO RPM WITH CRUISE RESUME SWITCH - 1800 RPM
79Q-005	PTO RPM WITH CRUISE RESUME SWITCH - 1000 RPM	79Q-021	PTO RPM WITH CRUISE RESUME SWITCH - 1900 RPM
79Q-006	PTO RPM WITH CRUISE RESUME SWITCH - 1050 RPM	79Q-022	PTO RPM WITH CRUISE RESUME SWITCH - 2000 RPM
79Q-007	PTO RPM WITH CRUISE RESUME SWITCH - 1100 RPM	79Q-025	PTO RPM WITH CRUISE RESUME SWITCH - 2100 RPM



# Engine Control

## PTO Mode Cooling Fan Enable & PTO Mode Cruise-RPM Increment (SC 79R)

### 79R - PTO Mode Cooling Fan Enable

Module 79R has sales codes used by customers to define whether or not the engine cooling fan will run continuously when the engine's PTO mode governor is enabled. This is required for some vehicle applications with stationary pump operation, such as fire trucks, sewer suckers, and oil pumping rigs.

Correct operation of this feature can be verified by activating the engine's PTO mode governor. If this feature has been set to run the engine fan continuously, the fan will come on when the PTO mode governor is active. Note that the engine fan will still run for other fan requests, such as coolant temperature or inlet air temperature, if the feature is programmed to disable continuous fan activation. This feature only works for fan clutches that are controlled by the engine controller.

### 79T - PTO Mode Cruise-RPM Increment

Module 79T has sales codes used by customers to define the increment by which engine RPM will change when the PTO mode governor is active and either the Cruise Control Set switch or Cruise Control Resume switch is pressed momentarily.

Correct operation of this feature can be verified by activating the engine's PTO mode governor with the Cruise Control switches. Once a speed has been set, a momentary press of either the Set or Resume switch will change the engine RPM by the amount set with this parameter. Note that if the engine is operating at or close to the minimum or maximum engine RPM for the PTO mode governor, the RPM change may be lower than the setting of this parameter.

At this time, this parameter only applies to Detroit Diesel and Mercedes engines. Cummins engines do not support a "bump up/bump down" feature.

<b>79R - PTO Mode Cooling Fan Enable (Detroit Diesel and Mercedes engines ONLY)</b>	
<b>OPTION</b>	<b>DESCRIPTION</b>
79R-001	PTO MODE COOLING FAN ENABLE
79R-998	NO PTO MODE COOLING FAN
<b>79T - PTO Mode RPM Increment with Cruise Control Switches (Detroit Diesel and Mercedes engines ONLY)</b>	
<b>OPTION</b>	<b>DESCRIPTION</b>
79T-001	PTO MODE RPM INCREMENT - 25 RPM
79T-002	PTO MODE RPM INCREMENT - 50 RPM
79T-003	PTO MODE RPM INCREMENT - 75 RPM
79T-004	PTO MODE RPM INCREMENT - 100 RPM
79T-998	NO PTO MODE RPM INCREMENT



# Engine Control

## PTO Mode Cancel-Vehicle Speed & PTO Governor Ramp Rate (SC 79S)

Module 79S, PTO Mode Cancel-Vehicle Speed, has sales codes used by customers to define the vehicle speed at which the engine controller disengages the PTO mode governor, returning control to the cab throttle pedal.

OPTION	DEFINITION
79S-009	PTO MODE CANCEL VEHICLE SPEED - 0 MPH
79S-013	PTO MODE CANCEL VEHICLE SPEED - 2 MPH
79S-010	PTO MODE CANCEL VEHICLE SPEED - 3 MPH
79S-001	PTO MODE CANCEL VEHICLE SPEED - 5 MPH
79S-002	PTO MODE CANCEL VEHICLE SPEED - 6 MPH
79S-003	PTO MODE CANCEL VEHICLE SPEED - 7 MPH
79S-004	PTO MODE CANCEL VEHICLE SPEED - 8 MPH
79S-005	PTO MODE CANCEL VEHICLE SPEED - 10 MPH
79S-006	PTO MODE CANCEL VEHICLE SPEED - 15 MPH
79S-012	PTO MODE CANCEL VEHICLE SPEED - 18 MPH
79S-007	PTO MODE CANCEL VEHICLE SPEED - 20 MPH
79S-008	PTO MODE CANCEL VEHICLE SPEED - 25 MPH
79S-011	PTO MODE CANCEL VEHICLE SPEED - 30 MPH
79S-998	NO PTO MODE CANCEL VEHICLE SPEED

Module 79U, Governor Ramp Rate, has sales codes used by customers to set the PTO mode Ramp Rate. The PTO mode Ramp Rate controls how quickly the engine will accelerate or decelerate when a new engine speed is requested. This parameter will affect the speed change for Cruise Control set and resume switches as well as for the remote PTO (fast idle) inputs.

OPTION	DEFINITION
79U-001	PTO GOVERNOR RAMP RATE - 25 RPM PER SECOND
79U-002	PTO GOVERNOR RAMP RATE - 50 RPM PER SECOND
79U-003	PTO GOVERNOR RAMP RATE - 75 RPM PER SECOND
79U-004	PTO GOVERNOR RAMP RATE - 100 RPM PER SECOND
79U-005	PTO GOVERNOR RAMP RATE - 150 RPM PER SECOND
79U-006	PTO GOVERNOR RAMP RATE - 200 RPM PER SECOND
79U-007	PTO GOVERNOR RAMP RATE - 250 RPM PER SECOND
79U-008	PTO GOVERNOR RAMP RATE - 300 RPM PER SECOND
79U-009	PTO GOVERNOR RAMP RATE - 400 RPM PER SECOND
79U-010	PTO GOVERNOR RAMP RATE - 500 RPM PER SECOND
79U-011	PTO GOVERNOR RAMP RATE - 1000 RPM PER SECOND
79U-012	PTO GOVERNOR RAMP RATE - 1500 RPM PER SECOND
79U-013	PTO GOVERNOR RAMP RATE - 1150 RPM PER SECOND
79U-998	NO PTO GOVERNOR RAMP RATE



# Engine Control

## PTO Mode DPF Regeneration & Remote PTO Number of Speeds (SC 79W)

Module 79V, PTO Mode DPF Regeneration, has sales codes used by customers to define whether or not a regeneration of the diesel particulate filter (DPF) is allowed when the PTO mode governor is active. Certain vocational applications which result in more stationary usage with the PTO mode governor operating more often than the road mode governor (i.e., accelerator pedal) will benefit from enabling this option.

Only available with Cummins and Detroit Diesel Engines.

OPTION	DESCRIPTION
79V-001	ENABLE REGENERATION IN PTO MODE
79V-998	NO PTO MODE DPF REGEN

Module 79W, Remote PTO Number of Speeds, has sales codes used by customers to define the number of fixed speeds available when the PTO mode governor is operating in its Remote PTO mode.

The Remote PTO feature is used to run an engine at a fixed speed. This mode of operation is useful for vocational applications where varying the engine speed is not required, or where the ability to change between two or three fixed speeds is needed (e.g., a PTO-driven air compressor may require two set speeds).

Many body builders use the Remote PTO input for a single set speed. When used this way, the Remote PTO input is a "fast idle" input.

OPTION	DESCRIPTION
79W-001	1 REMOTE PTO SPEED
79W-002	2 REMOTE PTO SPEEDS
79W-003	3 REMOTE PTO SPEEDS
79W-004	1 REMOTE PTO SPEED WITH CAB PTO GOVERNOR DISABLED
79W-005	2 REMOTE PTO SPEEDS WITH CAB PTO GOVERNOR DISABLED
79W-006	3 REMOTE PTO SPEEDS WITH CAB PTO GOVERNOR DISABLED
79W-007	EMISSIONS COMPLIANT REMOTE PTO FOR CAB SWITCHES
79W-008	1 REMOTE PTO SPEED WITH PTO SWITCH ENGAGEMENT
79W-009	2 REMOTE PTO SPEEDS WITH PTO SWITCH ENGAGEMENT
79W-010	3 REMOTE PTO SPEEDS WITH PTO SWITCH ENGAGEMENT
79W-012	1 CLUSTER SELECTABLE PTO GOVERNOR ENGINE SPEED PARAMETER
79W-013	2 CLUSTER SELECTABLE PTO GOVERNOR ENGINE SPEED PARAMETER
79W-011	3 CLUSTER SELECTABLE PTO GOVERNOR ENGINE SPEED PARAMETER
79W-014	1 CLUSTER SELECTABLE PTO GOVERNOR ENGINE SPEED PARAMETER WITH ONE OPERATOR SET SPEED
79W-015	2 CLUSTER SELECTABLE PTO GOVERNOR ENGINE SPEED PARAMETER WITH ONE OPERATOR SET SPEED
79W-016	3 CLUSTER SELECTABLE PTO GOVERNOR ENGINE SPEED PARAMETER WITH ONE OPERATOR SET SPEED
79W-007	EMISSIONS COMPLIANT REMOTE PTO FOR CAB SWITCHES
79W-998	REMOTE PTO DISABLED



# Engine Control



## Remote PTO Speed Setting 1 & 2 (SC 79X & 79Y)

Module 79X, Remote PTO Speed 1 Setting, has sales codes for defining the primary engine RPM (speed) attained when the remote PTO governor is activated on electronically controlled engines.

This setting controls the engine speed when a “fast idle” switch is wired into the Remote PTO input.

OPTION	DESCRIPTION	OPTION	DESCRIPTION
79X-998	NO REMOTE PTO SPEED 1 SETTING	79X-024	REMOTE PTO SPEED 1 SETTING - 1150 RPM
79X-023	REMOTE PTO SPEED 1 SETTING - 600 RPM	79X-019	REMOTE PTO SPEED 1 SETTING - 1175 RPM
79X-016	REMOTE PTO SPEED 1 SETTING - 625 RPM	79X-009	REMOTE PTO SPEED 1 SETTING - 1200 RPM
79X-001	REMOTE PTO SPEED 1 SETTING - 700 RPM	79X-013	REMOTE PTO SPEED 1 SETTING - 1250 RPM
79X-002	REMOTE PTO SPEED 1 SETTING - 750 RPM	79X-010	REMOTE PTO SPEED 1 SETTING - 1300 RPM
79X-003	REMOTE PTO SPEED 1 SETTING - 800 RPM	79X-011	REMOTE PTO SPEED 1 SETTING - 1350 RPM
79X-021	REMOTE PTO SPEED 1 SETTING - 825 RPM	79X-012	REMOTE PTO SPEED 1 SETTING - 1400 RPM
79X-004	REMOTE PTO SPEED 1 SETTING - 850 RPM	79X-025	REMOTE PTO SPEED 1 SETTING - 1450 RPM
79X-022	REMOTE PTO SPEED 1 SETTING - 890 RPM	79X-018	REMOTE PTO SPEED 1 SETTING - 1500 RPM
79X-005	REMOTE PTO SPEED 1 SETTING - 900 RPM	79X-028	REMOTE PTO SPEED 1 SETTING - 1550 RPM
79X-006	REMOTE PTO SPEED 1 SETTING - 950 RPM	79X-014	REMOTE PTO SPEED 1 SETTING - 1600 RPM
79X-007	REMOTE PTO SPEED 1 SETTING - 1000 RPM	79X-026	REMOTE PTO SPEED 1 SETTING - 1700 RPM
79X-020	REMOTE PTO SPEED 1 SETTING - 1050 RPM	79X-017	REMOTE PTO SPEED 1 SETTING - 1800 RPM
79X-008	REMOTE PTO SPEED 1 SETTING - 1100 RPM	79X-029	REMOTE PTO SPEED 1 SETTING - 1850 RPM
79X-015	REMOTE PTO SPEED 1 SETTING - 1125 RPM	79X-027	REMOTE PTO SPEED 1 SETTING - 2000 RPM

Module 79Y, Remote PTO Speed 2 Setting, has sales codes for defining the second engine RPM (speed) that can be attained by remote when the PTO governor is activated on electronically controlled engines.

For DDC and MB engines, a valid datacode should be used if 148-072 is specified on the order. This setting is available for Cummins engines

For Cummins engines, the second and third remote PTO speeds are attained by toggling the input switch between the On and Off states. When the switch is turned On, the first remote PTO speed is activated. Turning the switch On, Off, and On within a 2-second period will activate the second remote PTO speed. Turning the switch On, Off, On, Off, and On within a 2-second period activates the third remote PTO speed.

For Detroit Diesel and Mercedes engines, the same method that is used by Cummins engines can be used. In addition, the CPC2+ supports two additional modes, called "gray coded" and "binary coded", that requires two additional switch inputs for selecting between the three set speeds. A complete description of how these additional modes can be found in the Detroit Diesel Application & Installation Guide.

OPTION	DESCRIPTION
79Y-998	NO REMOTE PTO SPEED 2 SETTING
79Y-015	REMOTE PTO SPEED 2 SETTING - 750 RPM
79Y-017	REMOTE PTO SPEED 2 SETTING - 850 RPM
79Y-001	REMOTE PTO SPEED 2 SETTING - 900 RPM
79Y-002	REMOTE PTO SPEED 2 SETTING - 1000 RPM
79Y-003	REMOTE PTO SPEED 2 SETTING - 1100 RPM
79Y-004	REMOTE PTO SPEED 2 SETTING - 1150 RPM
79Y-005	REMOTE PTO SPEED 2 SETTING - 1200 RPM
79Y-006	REMOTE PTO SPEED 2 SETTING - 1250 RPM
79Y-007	REMOTE PTO SPEED 2 SETTING - 1300 RPM
79Y-008	REMOTE PTO SPEED 2 SETTING - 1350 RPM
79Y-009	REMOTE PTO SPEED 2 SETTING - 1400 RPM
79Y-010	REMOTE PTO SPEED 2 SETTING - 1450 RPM
79Y-011	REMOTE PTO SPEED 2 SETTING - 1500 RPM
79Y-012	REMOTE PTO SPEED 2 SETTING - 1600 RPM
79Y-013	REMOTE PTO SPEED 2 SETTING - 1700 RPM
79Y-016	REMOTE PTO SPEED 2 SETTING - 1950 RPM



# Engine Control

## Remote PTO Speed 3 Setting (SC 79Z)

Module 79Z, Remote PTO Speed 3 Setting, has sales codes for defining the third engine RPM (speed) that can be attained by remote when the PTO governor is activated on electronically controlled engines.

For DDC and MB engines, a valid datacode should be used if 148-072 is specified on the order. This setting is available for Cummins engines

For Cummins engines, the second and third remote PTO speeds are attained by toggling the input switch between the On and Off states. When the switch is turned On, the first remote PTO speed is activated. Turning the switch On, Off, and On within a 2-second period will activate the second remote PTO speed. Turning the switch On, Off, On, Off, and On within a 2-second period activates the third remote PTO speed.

For Detroit Diesel and Mercedes engines, the same method that is used by Cummins engines can be used. In addition, the CPC2+ supports two additional modes, called "gray coded" and "binary coded", that requires two additional switch inputs for selecting between the three set speeds. A complete description of how these additional modes can be found in the Detroit Diesel Application & Installation Guide.

OPTION	DESCRIPTION
79Z-998	NO REMOTE PTO SPEED 3 SETTING
79Z-014	REMOTE PTO SPEED 3 SETTING - 875 RPM
79Z-013	REMOTE PTO SPEED 3 SETTING - 950 RPM
79Z-001	REMOTE PTO SPEED 3 SETTING - 1200 RPM
79Z-015	REMOTE PTO SPEED 3 SETTING - 1250 RPM
79Z-002	REMOTE PTO SPEED 3 SETTING - 1300 RPM
79Z-003	REMOTE PTO SPEED 3 SETTING - 1400 RPM
79Z-004	REMOTE PTO SPEED 3 SETTING - 1500 RPM
79Z-005	REMOTE PTO SPEED 3 SETTING - 1600 RPM
79Z-006	REMOTE PTO SPEED 3 SETTING - 1700 RPM
79Z-007	REMOTE PTO SPEED 3 SETTING - 1750 RPM
79Z-008	REMOTE PTO SPEED 3 SETTING - 1800 RPM
79Z-009	REMOTE PTO SPEED 3 SETTING - 1850 RPM
79Z-010	REMOTE PTO SPEED 3 SETTING - 2000 RPM
79Z-011	REMOTE PTO SPEED 3 SETTING - 2100 RPM



# Engine Control

## Alternate Road Speed Limit 1 & 2 (SC 80A & 80B)

Module 80A, Alternate Road Speed Limit, contains sales codes used by customers to program the setting of an alternate road speed limit, if supported by the engine controller.

The Alternate Road Speed Limit is used in vocational applications where the speed of the vehicle must be limited while certain operations or functions are being performed. For example, an alternate road speed limit may be used on an aircraft de-icer truck to limit the ability of the truck to damage aircraft while de-icer is being applied. The setting is usually significantly lower than the normal road speed limit. The wiring and switch(es) required to activate the Alternate Road Speed Limit may not be installed or completely wired during vehicle manufacture.

This feature cannot be used in combination with the engine's PTO Mode governor.

OPTION	DESCRIPTION
80A-998	NO ALTERNATE ROAD SPEED LIMIT
80A-001	ALTERNATE ROAD SPEED LIMIT - 7 MPH
80A-006	ALTERNATE ROAD SPEED LIMIT - 8 MPH
80A-002	ALTERNATE ROAD SPEED LIMIT - 10 MPH
80A-003	ALTERNATE ROAD SPEED LIMIT - 62 MPH
80A-005	ALTERNATE ROAD SPEED LIMIT - 63 MPH
80A-004	PROGRAMMING FOR SWITCH LIMITED TOP SPEED TO 30 KPH

Module 80B, Alternate Road Speed Limit, has sales codes used by customers to configure the feature on Detroit Diesel and Mercedes engines that flashes the Check Engine lamp (CEL) when the vehicle speed exceeds either the Speed Limit While Fueling or Speed Limit While Coasting parameters. These settings may be lower than, equal to, or higher than the values programmed for the Road Speed Limit (module 79A). However, these settings must be less than or equal to the Cruise Control Speed Limit (module 79B).

This feature is used to discourage drivers from exceeding programmed Road Speed and Cruise Control Speed limits.

NOTE: the Detroit Diesel Application & Installation Manual refers to this feature as VSS Diagnostics for DDEC 6 and newer controls.

OPTION	DESCRIPTION
80B-998	NO CHECK ENGINE LIGHT ON OVERSPEED
80B-001	ENABLE CHECK ENGINE LIGHT AT 0 MPH VEHICLE SPEED
80B-002	ENABLE CHECK ENGINE LIGHT AT 50 MPH VEHICLE SPEED
80B-003	ENABLE CHECK ENGINE LIGHT AT 55 MPH VEHICLE SPEED
80B-004	ENABLE CHECK ENGINE LIGHT AT 56 MPH VEHICLE SPEED
80B-005	ENABLE CHECK ENGINE LIGHT AT 57 MPH VEHICLE SPEED
80B-006	ENABLE CHECK ENGINE LIGHT AT 59 MPH VEHICLE SPEED
80B-007	ENABLE CHECK ENGINE LIGHT AT 62 MPH VEHICLE SPEED
80B-008	ENABLE CHECK ENGINE LIGHT AT 65 MPH VEHICLE SPEED
80B-009	ENABLE CHECK ENGINE LIGHT AT 66 MPH VEHICLE SPEED
80B-010	ENABLE CHECK ENGINE LIGHT AT 67 MPH VEHICLE SPEED
80B-011	ENABLE CHECK ENGINE LIGHT AT 68 MPH VEHICLE SPEED
80B-012	ENABLE CHECK ENGINE LIGHT AT 70 MPH VEHICLE SPEED
80B-013	ENABLE CHECK ENGINE LIGHT AT 71 MPH VEHICLE SPEED
80B-014	ENABLE CHECK ENGINE LIGHT AT 72 MPH VEHICLE SPEED
80B-019	ENABLE CHECK ENGINE LIGHT AT 73 MPH VEHICLE SPEED
80B-015	ENABLE CHECK ENGINE LIGHT AT 75 MPH VEHICLE SPEED
80B-016	ENABLE CHECK ENGINE LIGHT AT 76 MPH VEHICLE SPEED
80B-017	ENABLE CHECK ENGINE LIGHT AT 80 MPH VEHICLE SPEED
80B-018	ENABLE CHECK ENGINE LIGHT AT 81 MPH VEHICLE SPEED



# Engine Control

## Engine Brake With Cruise Control (SC 80C)

Module 80C, Engine Brake With Cruise Control, has sales codes used by customers to enable engine braking when the speed of the vehicle exceeds the Cruise Control set speed.

On Cummins engines, this feature has a setting for the speed increment, in MPH, above the set speed at which engine braking begins; and a setting for the speed increment, in MPH, for activating the next stage of engine braking. If the engine brake does not have multiple stages (e.g., exhaust flap), no difference in engine braking will be noted. On Detroit Diesel and Mercedes engines, there are 6 settings: a minimum speed above the Cruise Control set speed and a maximum speed above the Cruise Control set speed for the low, medium, and high engine braking stages. If the engine brake does not have multiple stages (e.g., exhaust flap), no difference in engine braking will be noted, however, the 6 settings must still be set correctly to ensure uninterrupted operation of the engine brake.

OPTION	DESCRIPTION
80C-012	ENGINE BRAKE WITH GLOBAL CRUISE CONTROL ENABLED
80C-006	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 1 MPH ABOVE SET SPEED, 1 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-011	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 1 MPH ABOVE SET SPEED, 2 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-005	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 2 MPH ABOVE SET SPEED, ALL STAGES ACTIVATED
80C-004	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 2 MPH ABOVE SET SPEED, 1 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-001	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 2 MPH ABOVE SET SPEED, 2 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-003	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 2 MPH ABOVE SET SPEED, 3 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-007	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 2.5 MPH ABOVE SET SPEED, 0.5 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-009	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 3 MPH ABOVE SET SPEED, 1 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-010	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 3 MPH ABOVE SET SPEED, 1.5 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-002	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 3 MPH ABOVE SET SPEED, 2 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-013	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 4 MPH ABOVE SET SPEED, 0.5 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-008	ENGINE BRAKE WITH CRUISE CONTROL ENABLED AT 4 MPH ABOVE SET SPEED, 1 MPH INCREMENT BETWEEN BRAKING LEVELS
80C-998	NO ENGINE BRAKE WITH CRUISE CONTROL



# Engine Control

## Dynamic Fan Braking & PTO Mode Minimum RPM (SC 80E & 80G)

Module 80E, Dynamic Fan Braking, has sales codes used by customers to turn on the engine fan when the engine retarder is activated. This feature provides slightly more braking power than an engine retarder by itself.

It is only possible to enable this feature when the engine has an integral retarder (module 128) and a fan drive that is controlled by the engine (module 273). Integral retarders include exhaust brakes, variable-geometry turbochargers, constant throttle valves (CTV), Jacobs ("Jake") compression brakes, and the Turbo Brake. Fan drives that are controlled by the engine include variable-speed and on/off fan drives; viscous fan drives are not engine-controlled. The feature also only operates when engine brakes are operating at their "high" setting, which may be defined by the engine controller rather than the position of the engine brake control switches. As a result, lightly-loaded or unladen vehicles may not have the engine fan turn on during engine braking.

OPTION	DESCRIPTION
80E-001	ENGINE FAN ENABLED WITH RETARDER
80E-998	NO ENGINE FAN WITH RETARDER

Module 80G, PTO Mode Minimum RPM, has sales codes used by customers to set the minimum operating speed for the engine's PTO governor.

The PTO mode minimum RPM setting establishes a minimum engine operating speed when PTO mode is activated by a driver. Operation of this RPM limit may be verified if the engine controller has been configured to allow cruise control switches to activate PTO mode.

Note that enabling and activating PTO mode may be two separate operations, depending on the configuration of switches. For cruise control switch-activated PTO mode, turning the cruise control on/off switch to the on position enables PTO mode; a subsequent press and release of the cruise control set or resume switch is required to enable PTO mode. In addition, in certain implementations of the PTO governor, the minimum set speed may not be activated until the engine RPM is raised above the minimum setting.

80G-001 std for (600 RPM) for Heavy-Duty Engines  
 80G-002 std for (700 RPM) for Medium-Duty Engines  
 80G-998 required if 148-997 or 148-998 is requested

OPTION	DESCRIPTION
80G-001	PTO MINIMUM RPM - 600
80G-010	PTO MINIMUM RPM - 625
80G-014	PTO MINIMUM RPM - 650
80G-002	PTO MINIMUM RPM - 700
80G-003	PTO MINIMUM RPM - 750
80G-015	PTO MINIMUM RPM - 800
80G-006	PTO MINIMUM RPM - 825
80G-007	PTO MINIMUM RPM - 850
80G-013	PTO MINIMUM RPM - 890
80G-004	PTO MINIMUM RPM - 900
80G-011	PTO MINIMUM RPM - 950
80G-016	PTO MINIMUM RPM - 975
80G-005	PTO MINIMUM RPM - 1000
80G-008	PTO MINIMUM RPM - 1100
80G-009	PTO MINIMUM RPM - 1190
80G-012	PTO MINIMUM RPM - 1250
80G-998	NO PTO MINIMUM RPM



# Engine Control

## Auto Elevate (SC 80L-001)

The Auto-Elevate Idle feature is designed to extend the life of the aftertreatment by eliminating the hydrocarbon buildup before it reaches critical levels. To accomplish this the Auto elevate system automatically increases the engine RPM. This process results in a temporary increase of exhaust temperatures that effectively oxidizes the hydrocarbon (HC) within the Aftertreatment Device (ATD).

### Operation

When Auto-Elevate is enabled, the DDEC engine will automatically elevate engine RPM after a predetermined amount of idle, typically seven to eight minutes. Before activating the engine must be idling for a minimum of four minutes, park brake must be on and transmission in neutral (if equipped with a neutral switch). When the conditions are met and the system is activated the engine speed is slowly elevated from idle to 1100 RPM for typically seven to eight minutes. It can run for a maximum of 20 minutes if the process cannot complete.

### Dash Indicator Lamps

The DPF lamp is programmed to work with the Auto-Elevate feature. The indicator lamp will work exactly as it does for the Regeneration process (except that the engine will NOT derate in Zone 4).

The DPF lamp will light for hydrocarbon (HC) if the Auto-Elevate feature is disabled or interrupted.

The DPF lamp will not light for HC if the Extended Idle Auto RPM Elevate option is enabled and the Auto-Elevate is not interrupted.