Table of Contents

Engine Parameter Setting Instructions:

1) Caterpillar - Adam I, II & III - Variable Speed
2) Caterpillar - Adam I, II & III - Set Speed

3) Mack - V-Mac III - Variable Speed
4) Mack - V-Mac III - Set Speed

5) Volvo - Vectro II - Variable Speed
6) Volvo - Vectro II - Set Speed

7) International - Navpak - Variable Speed
8) International - Navpak - Set Speed

9) Cummins - Celect Plus/CM850/870/875 - Variable Speed
10) Cummins - Celect Plus/CM850/870/875 - Set Speed

11) Detroit - DDEC III & IV - Variable Speed
12) Detroit - DDEC III & IV - Set Speed

13) Mercedes-Benz - MBE - Variable Speed
14) Mercedes-Benz - MBE - Set Speed
Caterpillar:

**RPM Style:** Variable
**Remote RPM Switch Style:** 3 Position (mom-on/off/mom-on)
**Engine Manufacture:** Caterpillar
**Engine Models:** 3126, C-7, C-9, C-10, C-12, C-15, C-16, 3406E
**ECM Model:** Adam I, II, III

**Cruise Switch Configuration:** Accel/Set & Decel/Resume

**Idle Parameters:** Idle Vehicle Speed Limit - (Set to Min. 10mph)
  - Idle RPM Limit - (Set to Max PTO Pump RPM)
  - Idle/PTO RPM Ramp Rate - 300 (rpm/sec)
  - Idle/PTO Bump RPM - 20 to 50 rpm

**Dedicated PTO Parameters:** PTO Configuration - Remote Switches
  - PTO Top Engine Limit - Set to Max PTO Pump RPM
  - PTO Engine RPM Set Speed - 0 rpm (Default)
  - PTO Engine RPM Set Speed A - 0 rpm (Default)
  - PTO Engine RPM Set Speed B - 0 rpm (Default)
  - PTO to Set Speed - No (Default)
  - PTO Cab Controls RPM Limit - Low Idle
  - PTO Vehicle Speed Limit - (Set to Min. 100 mph)
  - Torque Limit - 2500 lb-ft (Default)
  - PTO Shutdown Time - 0 minutes (Default)
  - PTO Shutdown Timer Maximum RPM - 2120 rpm (Default)
  - PTO Activates Cooling Fan - Continuous

**Note:** Some of these settings may have to be altered according to your customer’s needs. The above settings are the basic settings that seem to work well.
E.D.R. Control System I & II

Engine Parameter Settings

Caterpillar:

RPM Style: SET Speed
Remote RPM Switch Style: 2 position (on/off)
Engine Manufacture: Caterpillar
Engine Models: 3126, C-7, C-9, C-10, C-12, C-15, C-16, 3406E
ECM Model: Adam I, II & III

Idle Parameters: Idle Vehicle Speed Limit - (Set to Min. 10mph)

   Idle RPM Limit - (Set to Max PTO Pump RPM)

   Idle/PTO RPM Ramp Rate - 1000 (rpm/sec)

   Idle/PTO Bump RPM - 20 to 50 rpm

Dedicated PTO Parameters: PTO Configuration - Remote Switches

   PTO Top Engine Limit - Set to Max PTO Pump RPM

   PTO Engine RPM Set Speed - Set to Max PTO Pump RPM

   PTO Engine RPM Set Speed A - 0 rpm (Default)

   PTO Engine RPM Set Speed B - 0 rpm (Default)

   PTO to Set Speed - Yes

   PTO Cab Controls RPM Limit - Low Idle

   PTO Vehicle Speed Limit - (Set to Min. 100 mph)

   Torque Limit - 2500 lb-ft (Default)

   PTO Shutdown Time - 0 minutes (Default)

   PTO Shutdown Timer Maximum RPM - 2120 rpm (Default)

   PTO Activates Cooling Fan - Continuous

Note: Some of these settings may have to be altered according to your customer’s needs. The above settings are the basic settings that seem to work well.
E.D.R. Control System I & II

Engine Parameter Settings

**V-Mac III**

**RPM Style:** Variable

**Remote Switch Style:** 3 position (mom-on/off/mom-on)

**Engine Manufacture:** Mack

**Engine Models:** V-MAC III

**ECM Model:** V-MAC III

**PTO 1 Settings**

- Min Set Speed - 475 rpm (default)
- Max Set Speed - Set it to Max PTO Pump Speed
- Max Road Speed - 10 mph
- Engine Speed Limit - Set to Max PTO Pump Speed
- Preset Speed - 1000 rpm (default)
- Single Speed Control - OFF
- Park Brake Check to Enable PTO - Custom
- Standard Ramp Rate - Custom RPM/Sec
- Accel Bump Speed - 20 to 50 RPM
- Decel Bump Speed - 20 to 50 RPM
- Hold to the Nearest - 5 RPM
- Accel Ramp Rate - 300 RPM
- Decel Ramp Rate - 300 RPM
- PTO 1 Mode - Custom
- PTO 1 Engage Requires PTO 2 - Ignore
- PTO 1 Drop out Requires PTO 2 - Ignore
- PTO 1 Temp Drop Requires PTO 2 - Ignore
- PTO 1 Engage Requires PTO 3 - N/A
- PTO 1 Drop out Requires PTO 3 - N/A
- PTO 1 Temp Drop Requires PTO 3 - N/A
- PTO 1 Engage Requires PTO 4 - N/A
- PTO 1 Drop out Requires PTO 4 - N/A
- PTO 1 Temp Drop Requires PTO 4 - N/A
- PTO 1 Engage Requires Park Brake - Ignore
- PTO 1 Drop Out Requires Park Brake - Ignore
- PTO 1 Temp Drop Requires Park Brake - Ignore
- PTO 1 Engage Requires Service Brake - Ignore
- PTO 1 Drop Out Requires Service Brake - Ignore
- PTO 1 Temp Drop Requires Service Brake - Ignore
- PTO 1 Engage Requires Clutch - Ignore
- PTO 1 Drop Out Requires Clutch - Pushed
- PTO 1 Temp Drop Requires Clutch - Ignore
- PTO 1 Engage Requires Control 1 - N/A
- PTO 1 Drop Out Requires Control 1 - N/A
- PTO 1 Temp Drop Requires Control 1 - N/A
- PTO 1 Engage Requires Control 2 - N/A
- PTO 1 Drop Out Requires Control 2 - N/A
- PTO 1 Temp Drop Requires Control 2 - N/A
- PTO 1 Autoset Status - NO
- PTO 1 Jump To Min Speed - NO
- PTO 1 Hold To Min Speed - NO
- PTO 1 Drop Out Over Max Speed - NO
E.D.R. Control System I & II
Engine Parameter Settings

V-Mac III

RPM Style: SET Speed
Remote Switch Style: 2 Position Switch (on/off)
Engine Manufacture: Mack
Engine Models: V-MAC III
ECM Model: V-MAC III

PTO 1 Settings
Min Set Speed - 475 rpm (default)
Max Set Speed - Set it to Max PTO Pump Speed
Max Road Speed - 10 mph
Engine Speed Limit - Set to Max PTO Pump Speed
Preset Speed - Set to Max PTO Pump Speed
Single Speed Control - ON
Park Brake Check to Enable PTO - Custom
Standard Ramp Rate - Custom RPM/Sec
Accel Bump Speed - 20 to 50 RPM
Decel Bump Speed - 20 to 50 RPM
Hold to the Nearest - 5 RPM
Accel Ramp Rate - 300 RPM
Decel Ramp Rate - 300 RPM
PTO 1 Mode - Custom
PTO 1 Engage Requires PTO 2 - Ignore
PTO 1 Drop out Requires PTO 2 - Ignore
PTO 1 Temp Drop Requires PTO 2 - Ignore
PTO 1 Engage Requires PTO 3 - N/A
PTO 1 Drop out Requires PTO 3 - N/A
PTO 1 Temp Drop Requires PTO 3 - N/A
PTO 1 Engage Requires PTO 4 - N/A
PTO 1 Drop out Requires PTO 4 - N/A
PTO 1 Temp Drop Requires PTO 4 - N/A
PTO 1 Engage Requires Park Brake - Ignore
PTO 1 Drop out Requires Park Brake - Ignore
PTO 1 Temp Drop Requires Park Brake - Ignore
PTO 1 Engage Requires Service Brake - Ignore
PTO 1 Drop out Requires Service Brake - Ignore
PTO 1 Temp Drop Requires Service Brake - Ignore
PTO 1 Engage Requires Clutch - Ignore
PTO 1 Drop out Requires Clutch - Pushed
PTO 1 Temp Drop Requires Clutch - Ignore
PTO 1 Engage Requires Control 1 - N/A
PTO 1 Drop out Requires Control 1 - N/A
PTO 1 Temp Drop Requires Control 1 - N/A
PTO 1 Engage Requires Control 2 - N/A
PTO 1 Drop out Requires Control 2 - N/A
PTO 1 Temp Drop Requires Control 2 - N/A
Volvo Vectro II

RPM Style: Variable
Remote Switch Style: 3 position (mom-on/off/mom-on)
Engine Manufacture: Volvo
Engine Models: VE 275/300
ECM Model: VECTRO II

Basic PTO Settings

Max Set ESPD - Set to Max PTO Pump Speed

PTO Resume ESPD - N/A

PTO Min Set ESPD - Minimum Engine Speed in PTO Mode

PTO Min Set VSPD - Minimum Vehicle Speed in PTO Mode

PTO Max Set VSPD - Maximum Vehicle Speed in PTO Mode

PTO Trim Factor - 300 rpm/sec
**E.D.R. Control System I & II**

**Engine Parameter Settings**

**Volvo Vectro II**

**RPM Style:** SET Speed

**Remote Switch Style:** 2 position (on/off)

**Engine Manufacture:** Volvo

**Engine Models:** VE 275/300

**ECM Model:** VECTRO II

**Basic PTO Settings**

PTO Max. Set ESPD - Set to Max. PTO Pump Speed

PTO Min. Set ESPD - Set to Default Value

**PTO 1 Settings**

PTO 1 Enable Input - Yes

PTO 1 Enable Switch - Yes

PTO 1 Enable Parking Brake - No

PTO 1 Enable Brake - No

PTO 1 Enable Clutch - No

PTO 1 Resume ESPD - Set to Max PTO Pump Speed

PTO 1 Max Set VSPD - Maximum Vehicle Speed in PTO 1 Mode
International Navpak

RPM Style: Variable
Remote Switch Style: 3 position (mom-on/off/mom-on)
Engine Manufacture: International
Engine Models: T 444E, DT 466E, DT 466E HT, 530E, 530E HT
ECM Model: Navpak

Power Take Off Control

PTO Mode - This can be set to either “Remote Operation Only” or Remote and In-Cab Operation.

PTO Max Vehicle Speed - 3 mph (Default)
PTO Incab Mode - Stationary Variable or None
PTO Incab Control - OFF
PTO Remote Throttle - OFF
Set Switch RPM - 700 (Idle)
Resume Switch RPM - 700 (Idle)
PTO RPM Ramp Rate - 300 rpm/sec
PTO Max RPM - Set This to Max PTO Pump Speed
E.D.R. Control System I & II
Engine Parameter Settings

**International Navpak**

**RPM Style:** SET Speed  
**Remote Switch Style:** 2 position (on/off)  
**Engine Manufacture:** International  
**Engine Models:** T 444E, DT 466E, DT 466 E HT, 530E, 530E HT  
**ECM Model:** Navpak

**Power Take Off Control**

PTO Mode - This can be set to either “Remote Operation Only” or Remote and In-Cab Operation.

PTO Max Vehicle Speed - 3 mph (Default)

PTO Incab Mode - Stationary Variable or None

PTO Incab Control - OFF

PTO Remote Throttle - OFF

Set Switch RPM - Set This to Max PTO Pump Speed

Resume Switch RPM - 700 (Idle)

PTO RPM Ramp Rate - 500 rpm/sec

PTO Max RPM - Set This to Max PTO Pump Speed
E.D.R. Control System I & II
Engine Parameter Settings

Cummins (Celect Plus)

**RPM Style:** Variable Speed

**Remote Switch Style:** 3 position (mom-on/off/mom-on)

**Engine Manufacture:** Cummins

**Engine Models:** ISB/ISB02/ISC/ISC02/ISL/ISL02/ISM/ISM02/ISX/ISX02/M11/N14

**ECM Model:** Celect Plus & CM850/870/875

**Features 1:**

Brake / Clutch PTO Disable - Check Off

**Features 2:**

Throttle Disable in PTO - Check Off

Governor Type: Variable Speed

**PTO Options:**

PTO/Remote PTO Enable - Check Off

Maximum PTO Speed - Set to Maximum PTO Pump Speed

Minimum PTO Speed - Set to Idle RPM

PTO Set Speed - Set to Idle RPM or to desired set speed

PTO Resume Speed - Set to Idle RPM

PTO Ramp Rate - 300 RPM

**Remote PTO:**

Remote PTO Speed - Set to Maximum PTO Pump Speed
E.D.R. Control System I & II
Engine Parameter Settings

Cummins (Celect Plus)

RPM Style: SET Speed
Remote Switch Style: 2 position (on/off)
Engine Manufacture: Cummins
Engine Models: ISB/ISB02/ISC/ISC02/ISL/ISL02/ISM/ISM02/ISX/ISX02/M11/N14
ECM Model: Celect Plus & CM850/870/875

Features 1:
Brake / Clutch PTO Disable - Check Off or Enable

Features 2:
Throttle Disable in PTO - Check Off or Enable

Governor Type: Variable Speed

PTO Options:
PTO/Remote PTO Enable - Check Off or Enable

Maximum PTO Speed - Set to Maximum PTO Pump Speed
Minimum PTO Speed - Set to Idle RPM
PTO Set Speed - Set to Maximum PTO Pump Speed
PTO Resume Speed - Set to Idle RPM
PTO Ramp Rate - 1000 RPM

Remote PTO:
Remote PTO Speed - Set to Maximum PTO Pump Speed

Note: You may want to have more than one set speed. There up to five different remote RPM set speeds that can be programed in. After the set speeds are programed in, you will be able to toggle the RPM on/off switch to attain the programed RPM desired. Example, if you programed the following 1) 800 rpm 2) 900 rpm 3) 1000 rpm. To attain the 3rd rpm value (1000 rpm) you would toggle the switch on/off/on/off/on the engine will go to a 1000 rpm. The 2nd rpm can be attained by toggling the switch on/off/on. The 1st rpm can be attained by toggling the switch on.
Detroit DDEC III & IV

**RPM Style:** Variable Speed  
**Remote Switch Style:** 3 position (mom-on/off/mom-on)  
**Engine Manufacture:** Detroit  
**Engine Models:** Series 60 & 50  
**ECM Model:** DDEC III & IV

**CRUISE CONTROL:**

CRUZ SW VSG - YES  
INIT RPM - SET TO IDLE SPEED  
RPM INCR - 20 TO 50 RPM

**VARIABLE SPEED GOVERNOR CALIBRATION:**

VSG MIN RPM - SET TO IDLE RPM  
VSG MAX RPM - SET TO MAXIMUM PTO PUMP SPEED
E.D.R. Control System I & II
Engine Parameter Settings

Detroit DDEC III & IV

RPM Style: SET SPEED
Remote Switch Style: 3 position (mom-on/off/mom-on)
Engine Manufacture: Detroit
Engine Models: Series 60 & 50
ECM Model: DDEC III & IV

CRUISE CONTROL:

CRUZ SW VSG - YES
INIT RPM - SET TO DESIRED SET SPEED
RPM INCR - 20 TO 50 RPM

VARIABLE SPEED GOVERNOR CALIBRATION:

VSG MIN RPM - SET TO IDLE RPM
VSG MAX RPM - SET TO MAXIMUM PTO PUMP SPEED
E.D.R. Control System I & II

Engine Parameter Settings

Mercedes-Benz (MBE)

**RPM Style:** Variable Speed  
**Remote Switch Style:** 3 position Switch (Mom. on/off/Mom. on)  
**Engine Manufacture:** MBE  
**Engine Models:** MBE 190Hp - 450Hp  
**ECM Model:** MBE

11008 - Max Stand Still RPM - Set to Max PTO Speed  
11101 - PTO Function - 1 - Enable  
11102 - Max engine speed in PTO mode - Set to Max PTO Speed -  
11104 - PTO Throttle Override - 0 - Disable  
11105 - Max throttle speed in PTO mode - Set to Max PTO Speed -  
11106 - Service Brake Dropout - 0 - Disable  
11107 - Clutch Dropout - 0 - Disable  
11108 - Max road speed - 100 mph  
11109 - Max set speed - set to max PTO speed -  
11110 - PTO Governor Type - 2  
11112 - Max Resume Speed - Set to Idle  
11113 - PTO Governor Type - 2  
11115 - PTO ramp rate - 300 RPM/Sec
Mercedes-Benz (MBE)

**RPM Style:** Set Speed
**Remote Switch Style:** 3 position switch (On/Off)
**Engine Manufacture:** MBE
**Engine Models:** MBE 190Hp - 450Hp
**ECM Model:** MBE

11101 - PTO Function - 1 -Enable
11102 - Max PTO speed - Set to the Max PTO Speed
11104 - PTO Throttle Override - 0 - Disable
11106 - PTO Service Brake Override - 0 -Disable
11107 - PTO Clutch Override - 0 -Disable
11115 - PTO Ramp Rate - 1000 rpm/sec
11116 - Number of Remote PTO Speeds - 1
11117 - PTO Set Speed - Set to the Max PTO Speed
11118 - Governor Type - 2 - Variable Speed