EDRJ Series Programming Guide – (Ver–1.03)

0 =SOURCE_ADDRESS – Pick the proper source address for the engine that it is communicating with.
Source address 3 – Detroit, Hino, International Big Bore & Mercedes.
Source Address 7 – Cummins & Paccar PX
Source Address 11 – Mack, PACCAR MX & Volvo
Source Address 42 – Old Mack

1 = MINIMUM_RPM (idle) – This is the starting RPM when there is a 12v input on either RPM 1, 2 & 3.

2 = MAXIMUM_ENGINE_RPM – Set this to the maximum RPM that you would like the engine to attain when there is a 12v input on either RPM 1, 2 & 3.

3 = Blank

4 = PRIORITY_INPUT_ORDER (default: 321) – This setting will control which RPM input will take Priority.

5 = Blank

6 = P3_SET_SPEED – Set the RPM value that the engine needs to attain when enabled.

7 = P3_BUMP – Value that the engine RPM will increase with an RPM 3 on signal. Works with Ramp Delay setting.

8 = P3_RAMP_DELAY - Value that the engine RPM will increase with an RPM 3 on signal. Works with Bump setting.

9 = P3_NEUTRAL (0=Off, 1=On) – Interlock, will not allow the RPM 3 Set RPM to work if the vehicle is not in neutral. (Must be Broadcasted on the J1939 for this to work)

10 = P3_PARK_BRAKE (0=Off, 1=On) - Interlock, will not allow the RPM 3 Set RPM to work if the vehicle does not have the Parking Brake applied. (Must be Broadcasted on the J1939 for this to work)

11 = P3_ROAD_SPEED_LIMIT (0=Off, 1=On) - Interlock, will not allow the RPM 3 Set RPM to work if the vehicle is showing any Road Speed. (Must be Broadcasted on the J1939 for this to work)

12 = P3_SERVICE_BRAKE (0=Off, 1=On) – Interlock, will turn off RPM 3 when the service brake is applied (Must be Broadcasted on the J1939 for this to work)

13 = Blank

14 = P2_SET_SPEED – Set the RPM value that the engine needs to attain when enabled.

15 = P2_BUMP - Value that the engine RPM will increase with an RPM 2 on signal. Works with the Ramp Delay setting.

16 = P2_RAMP_DELAY - Value that the engine RPM will increase with an RPM 2 on signal. Works with the Bump setting.

17 = P2_NEUTRAL (0=Off, 1=On) – Interlock, will not allow the RPM 2 Set RPM to work if the vehicle is not in neutral. (Must be Broadcasted on the J1939 for this to work)

18 = P2_PARK_BRAKE (0=Off, 1=On) - Interlock, will not allow the RPM 2 Set RPM to work if the vehicle does not have the Parking Brake applied. (Must be Broadcasted on the J1939 for this to work)

19 = P2_ROAD_SPEED_LIMIT (0=Off, 1=On) - Interlock, will not allow the RPM 2 Set RPM to work if the vehicle is showing any Road Speed. (Must be Broadcasted on the J1939 for this to work)

20 = P2_SERVICE_BRAKE (0=Off, 1=On) – Interlock, will turn off RPM 2 when the service brake is applied (Must be Broadcasted on the J1939 for this to work)

21 = Blank

22 = P1_SET_SPEED – Set the RPM value that the engine needs to attain when enabled.

23 = P1_BUMP - Value that the engine RPM will increase with an RPM 1 on signal. Works with Ramp Delay setting.

24 = P1_RAMP_DELAY- Value that the engine RPM will increase with an RPM 1 on signal. Works with Bump setting.

25 = P1_NEUTRAL (0=Off, 1=On) – Interlock, will not allow the RPM 1 Set RPM to work if the vehicle is not in neutral. (Must be Broadcasted on the J1939 for this to work)

26 = P1_PARK_BRAKE (0=Off, 1=On) - Interlock, will not allow the RPM 1 Set RPM to work if the vehicle does not have the Parking Brake applied. (Must be Broadcasted on the J1939 for this to work)

27 = P1_ROAD_SPEED_LIMIT (0=Off, 1=On) - Interlock, will not allow the RPM 1 Set RPM to work if the vehicle is showing any Road Speed. (Must be Broadcasted on the J1939 for this to work)

28 = P1_SERVICE_BRAKE (0=Off, 1=On) – Interlock, will turn off RPM 1 when the service brake is applied (Must be Broadcasted on the J1939 for this to work)

29 = Blank

30 = ENG_SDWN_ACCEL_INTERLOCK_SOURCE_ADDRESS – Set this to a value that will match the value in the Multiplexing Engine Source Address value for both the Engine Shutdown and Accelerator Interlock.

31 = ENG_SDWN_ACTIVE_MODE (0=12V, 1=0V, 2=Disabled) – Activates the J1939 engine stop engine by using a 12v input, ground input or Disables it from broadcasting on the J1939.

32 = Blank

33 = PTO_NEUTRAL (0=Off, 1=On) Interlock, allows the PTO to work when in neutral. (Must be Broadcasted on the J1939 for this to work)

34 = PTO_PARK_BRAKE (0=Off, 1=On) – Interlock, allows the PTO to work when the Parking Brake is applied. (Must be Broadcasted on the J1939 for this to work)

35 = PTO_ROAD_SPEED_LIMIT (0=Off, 1=On) – Interlock, turns off the PTO when there is a road speed input. (Must be Broadcasted on the J1939 for this to work)

36 = PTO_SERVICE_BRAKE (0=Off, 1=On) – Interlock, turns off the PTO when there is a Service Brake input. (Must be Broadcasted on the J1939 for this to work)

37 = PTO_MAX_ROAD_SPEED_KICKOUT (km/h) – Turns off the PTO when this road speed value is meet, it will stay off until the reengagement road speed is meet.

38 = PTO_REENGAGEMENT_ROAD_SPEED (km/h) – Once the PTO is kick out by the PTO Max Road Speed (37), the PTO will turn on when this road speed value is meet.

39 = PTO_MAX_ENGINE_RPM_KICKOUT – Turns off the PTO when the engine RPM value is meet, it will stay off until the reengagement RPM is meet.

40 = PTO_REENGAGEMENT (0=Off, 1=On) – Turns on the Reengagement RPM feature, if turned off, it will not allow the PTO to be Reengaged unless the PTO switch is turn off then back on.

41 = PTO_REENGAGEMENT_RPM – Once the PTO is kick out by the max PTO RPM (39) setting, the PTO will turn back on when this RPM value is meet.

42 = PTO_MODE (0=n/o, 1=n/c) – This will invert the PTO output in relation to the PTO input (ie. N/C = PTO input on, PTO output off. N/O = PTO input on, PTO output on)

43 = PTO_TIMER (in min. 0=deactivated) – this is a timed output in minutes for the PTO to stay engaged, when the time interval is reach, the PTO will turn off. PTO switch will have to be turn off then on again to reengage the PTO.

44 = TSC1_SPEED_CTRL_CONDITIONS (0 to 3) – Set to default 3, not to be changed.

45 = TSC1_CONTROL_PURPOSE (0 to 31) – Set to default 31, not to be changed.

46 = TSC1_SPEED_LIMIT_MODE (0=Off, 1=On) – Turns on the feature that will prevent the cab foot throttle from exceeding the RPM value found in 47 Speed Limit RPM. This is enabled by an input on the RPM 3.

47 = TSC1_SPEED_LIMIT_VALUE (RPM) – Max RPM of the engine using the cab foot throttle.

48 = TSC1_RESET_TIMER (sec) – Counts the amount of time that the RPM 1, 2 & 3 is on. Once the time value is reached, it turns it off and back on again very quickly. Used on certain engines that time out when using RPM 1, 2 & 3. Used with PACCAR MS & Hino engines.

49 = TSC1_CTRL_Mode_PRIORITY (0=Highest, 3=Low) – TSC1 Priority setting

50 = IN01 (0= PriorityRpmOff, 1= On) – Turns on or off the RPM 3, when on it will allow the RPM 3 to work with the PTO output. When turned off it allows the PTO output to work and the RPM 3 not to work.

51 = IN04 (0= RpmUp, 1= PtoIn) – Changes this input to either a RPM increase or PTO on input. When changed to PTO, it will cause the PTO to turn on and off with this input and the RPM 3 input will not control the PTO.

52=IN05 (0= RpmDown, 1= WorkBrake) – Changes this input to either a RPM Decrease or Work Brake input. When set to Work Brake, it will allow the PTO output to remain on as long as the Work Brake is engaged below the road speed value that is set in the (68) Work Brake Road Speed.

53 = IN02_ACCELERATOR_INTERLOCK (0=Off, 1=On) – Turns on the Accelerator Inhibit when used on the J1939 engine (Cummins Only)

54 = IN02_ACCELERATOR_INTERLOCK_ENABLE (km/h) – This is the road speed value that the accelerator pedal will reengaged after it has been disable by parameter 55.

55 = IN02_ACCELERATOR_INTERLOCK_DISABLE (km/h) – This is the road speed value that the accelerator pedal will operate up to.

56 = Blank

57 = REMOTE_FOOT_PEDAL (0=Off, 1=On) – Enables the Remote Foot Throttle input.

58 = REMOTE_FOOT_PEDAL_MIN_LSB – Calibration value for the minimum input for the Remote Throttle.

59 = REMOTE_FOOT_PEDAL_MAX_LSB – Calibration value for the maximum input for the Remote Throttle.

60 = REMOTE_FOOT_PEDAL_SPEED_LIMIT (0= Off, km/h) – Maximum road speed limit that the Remote Throttle will operate.

61 = Blank

62 = OUT01_OPT (0= Rpm>300, 1= SB, 2= PB, 3= PB or SB) – 0 = Engine Running Output, 1 = Service Brake Output, 2 = Parking Brake Output, 3 = Service or Parking Brake Output.

63 = OUT06_OPT (0= Neutral, 1= PtoIn) – 0 = Output Ground when vehicle is in neutral, 1 = Output when Pin#1 (IN01) is on.

64 = Blank

65 = SERVICE_BRAKE_SA – Source Address to receive the Service Brake on the J1939

66 = PARKING_BRAKE_SA – Source Address to receive the Parking Brake on the J1939

67 = PROG_MODE (0= Allowed, 1= Disabled) – Turns on and off the ability to program the software through the circuit board.

68 = WORK_BRAKE_ROADSPEED (km/h) – The road speed value that the Work Brake input works with to allow the PTO to stay engaged. It allows the PTO to stay engaged if the road speed is the same or below this value. If the PTO is turn off because the work brake was engaged when the vehicle speed was above this setting, to reset the Work Brake would have to be turn off and back on again, then the PTO will reengage.

69 = IN01_LATCH (0=Toggle SW, 1=Mom SW) – Configures Input for an On/Off switch or a Momentary switch.

70 = IN02_LATCH (0=Toggle SW, 1=Mom SW) – Configures Input for an On/Off switch or a Momentary switch.

71 = IN03_LATCH (0=Toggle SW, 1=Mom SW) – Configures Input for an On/Off switch or a Momentary switch.

72 = TSC1_DISABLE_CNT_CHKSM (0=Default, 1=Disabled) – Turns the Check Sum On or Off

73 = PTO_Neutral (0=Off, 1=On) – Allows the Neutral signal to control the output 2.

74 = PTO2_PARK_BRAKE (0=Off, 1=On) – Allows the Parking Brake to control the output 2.

75 = PTO2_ROAD_SPEED_LIMIT (0=Off, 1=On) – Allows the Road Speed to control the output 2.

76 = PTO2_SERVICE_BRAKE (0=Off, 1=On) – Allows the Service Brake to control the output 2.

77 = PTO2_MAX_ROAD_SPEED_KICKOUT (km/h) – This is the Road Speed that output 2 will turn off.

78 = PTO2_REENGAGEMENT_ROAD_SPEED (km/h) – This is the Road Speed that output 2 will turn back on.

79 = PTO2_MAX_ENGINE_RPM_KICKOUT – This is the maximum engine RPM that output 2 to stay on, if exceeded it will remain off until the engine RPM reengagement value has been reached (Par 81) and the PTO2_ REENGAGEMENT is turn on.

80 = PTO2_REENGAGEMENT (0=Off, 1=On) – The On value will allow the output 2 to follow the reengagement RPM parameter (Par 81). If this is turned off, then if the maximum RPM value (Par 79) is exceeded then output 2 will stay off until the input is turn off then on.

81 = PTO2_REENGAGEMENT_RPM – This is the engine RPM value that output 2 will turn back on when the maximum RPM has been exceed (Par 79).

82 = PTO2_MODE (0=n/o, 1=n/c) - This will invert the output 2 in relation to the PTO 2 input (ie. N/C = PTO input on, PTO output off. N/O = PTO input on, PTO output on)

83 = PTO2_TIMER (in min. 0=deactivated) - this is a timed output in minutes for the PTO 2 to stay engaged, when the time interval is reach, the PTO 2 will turn off. PTO 2 switch will have to be turn off then on again to reengage the PTO 2.

84 = OUT02_OPT (0=Pto2, 1= SB, 2= PB, 3= PB or SB) – This setting decides what you use output 2 for – PTO 2 or Service Brake or Parking Brake or either the Parking Brake or Service Brake.

85 = OUT03_OPT (0= In01off, 1= SB, 2= PB, 3= PB or SB) – This setting decides what you use output 3 for – Comes on when input one is turn off or comes on when Service Brake is on or comes on when Parking Brake is on or comes on if either the Parking Brake of Service Brake is on.

86 = IN04_LATCH (0= Toggle SW, 1= Mom SW) – Configures Input for an On/Off switch or a Momentary switch.

87 = IN05_LATCH (0= Toggle SW, 1= Mom SW) - Configures Input for an On/Off switch or a Momentary switch.

88 = IN06_LATCH (0= Toggle SW, 1= Mom SW) - Configures Input for an On/Off switch or a Momentary switch.

89 = IN01_CTRL_OUT01 – Configures what Input will control what output.

90 = IN02_CTRL_OUT02– Configures what Input will control what output.

91 = IN03_CTRL_OUT03– Configures what Input will control what output.

92 = IN04_CTRL_OUT04– Configures what Input will control what output.

93 = IN05_CTRL_OUT05– Configures what Input will control what output.

94 = IN06_CTRL_OUT06– Configures what Input will control what output.

95 = OUT05_OPT (0= RpmOff, 1= Gnd) – Configures it for a engine not running output or always a ground output.

96 = DDEC_2_9_PTO (O= Off, 1= On) – This will turn on the Detroit CPC 2/9 (Remote PTO Switch) using a Data signal on the J1939, it has to be programmed on the Detroit side. Set Par 13 – 2 09 DI Selection to J1939 PTO.