

EDRJ J1939 System Controller

Controlling today's Electronic engines is costly and complicated and getting worse every day.

The EDRJ controller will simplify your designs, speed up build time and reduce warranty all at the same time!



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- **The EDRJ System Controllers are designed to simplify installation of engine and system controls.**
- **The EDRJ works on multiple OEM chassis and engines, eliminating the need to access and program systems individually.**
- **OEM proprietary control systems. Just plug the EDRJ into the existing J1939 can bus, connect a basic harness and install the pre-programmed control box in a convenient location.**
- **EDRJ parameters can be set up using a laptop with RPM's simple, easy to use programming software.**
- **EDRJ controls are designed to work on most 2006 or newer J1939 protocol engines. The EDRJ provides a reliable, consistent solution for all your control needs.**

Solutions For Your Problems



Simplify your problems regardless of the OEM

Multiple Systems- Having to work through multiple different solutions for different OE chassis
***RPM Controls are compatible with multiple OE brands and engines (J1939 communication).
Controls are programmable to suit multiple configurations, so parts stocking is simplified.***

Constantly Changing Architecture- Having to deal with ongoing changes to OE electrical systems which affect installations.
RPM Controls are not affected by ongoing OE changes in chassis wiring as communication is done through the J1939 data link of the vehicle.

Chassis Speed Wrong- Chassis are constantly received with wrong or missing parameters.
RPM Controls do not need pre-programmed parameters on chassis or rely on dealer salespeople to get options correct.

Multiple Engine Programs- Having to pay for multiple engine program software packages, and keep techs trained on how to use them.
RPM Controls eliminate the need for multiple versions of OE engine software - no subscription fees, no training required.

Service Calls- Having to wait for dealer mobile service or dealership service department to schedule chassis for programming, and the unplanned expense for this service.
RPM Controls reduce the need for mobile service calls or trips to the dealer for engine programming issues

Field Support- Supporting product in the field when wiring or connection issues arise. Training service personnel and producing service documentation for all installations.
RPM Controls supplies basic wiring diagrams for all products. Low cost standard OEM connection harnesses and qualified technical help is available to support products. Solutions become consistent and repeatable.

Simplify Installation- Having to train and retrain techs on installation procedures with high turnover and lack of skilled workers.
RPM Controls can be installed by non-specialist labor. No need to constantly train installers.

Issue- Having to support parts for units in the field with low volume wiring harnesses etc
RPM Controls offers a Limited lifetime warranty on materials and workmanship. Parts are programmable and configurable so customers get excellent long term support.

Standard Functions



EDRJ100 and EDRJ200 Systems Come Equipped With the Following Standard Options and Outputs

ITEM NO	Standard Features		EDRJ STD PRODUCTS					Function Descriptions
	Input Pins - IP #	Output Pins - OP #	EDRJ 100	EDRJ 200	EDRJ 201	EDRJ 202	EDRJ 205	
1	SET RPM #1	IP 1	X					Programmable RPM Setting - Replaced by Analog Throttle input on 200 series. Requires Hardwire Input signal
2	SET RPM #2	IP 1	X	X	X	X	X	Programmable RPM Setting. Requires Hardwire Input signal
3	SET RPM #3	IP 1	X	X	X	X	X	Programmable RPM Setting. Requires Hardwire Input signal
4	ADJUSTABLE ENGINE RAMP RATE	P	X	X	X	X	X	Programmable based on engine option.
5	INC/DEC VARIABLE RPM	IP 2	X		X			Allows increase or decrease in programmed RPM setting based on input.
6	MULTIPLE FOOT PEDAL ANOLOG SIGNAL - RPM #1	IP 4		X	X	X	X	EDRJ 200 series option. Allows a variable analogue remote throttle input for variable speed. Requires Hardwire Input signal
7	MULTIPLE HAND THROTTLE ANALOG SIGNAL - RPM #1	IP 4		X	X	X	X	EDRJ 200 series option. Allows a variable analogue remote throttle input for variable speed. Requires Hardwire Input signal
8	FOOT PEDAL ROAD SPEED LIMITATION	P		X	X	X	X	Limits road speed when input signal is from remote throttle. RHD applications
9	NEUTRAL INTERLOCK	P	X	X	X	X	X	Interlock -Will not allow the engine to go to the preset RPM's unless a neutral signal is detected. Signal must be generated on 1939.
10	PARKING BRAKE INTERLOCK	P	X	X	X	X	X	Interlock -Will not allow the engine to go to the preset RPM's unless a park brake signal is detected. Signal must be generated on 1939.
11	SERVICE BRAKE INTERLOCK	P	X	X	X	X	X	Interlock -Will disconnect the engine from the preset RPM's when a service brake application signal is detected. Signal must be generated on 1939.
12	ROAD SPEED INTERLOCK	P	X	X	X	X	X	Interlock -Will not allow the engine to go to the preset RPM's if a road speed signal is detected. Signal must be generated on 1939.
13	PTO OVERSPEED PROTECTION	P	X			X	X	Will disconnect the PTO when preset max RPM is exceeded.
14	PTO ON J1939 - 2/9 (DDEC)	IP 1 OP 1	X	X		X	X	Enable PTO with DDC engine. Requires engine program software if non-hardwire option selected.
15	REMOTE ENGINE START	IP 1 OP 1	X	X	X	X		Input signal will start engine. Ignition must be on, as well as needing neutral and park brake signals. Requires eliminating another option/pin.
16	REMOTE ENGINE STOP HARDWIRE/ J1939	IP 1 OP 2	X	X	X	X		Input signal will stop running engine. Requires additional wiring and engine parameter software. Requires eliminating another option/pin.
17	J1939 ACCELERATOR INTERLOCK (CUMMINS)	P	X					Programmable feature with Cummins engine. Preset RPM cannot be exceeded by primary throttle.
18	INTERNAL ON BOARD PROGRAMMING	P	X	X	X	X	X	Allows modifying basic pre-sets on control box without input from software.
19	PROGRAMABLE INPUTS LATCHED OR MOMENTARY	P	X	X	X	X	X	Inputs can be programmed to accept either fixed or momentary signals.
20	PROGRAMABLE INPUTS TO OUTPUTS	P	X	X	X	X	X	Control box can be programed to have inputs connected to outputs in multiple positions.

Optional Functions



For high volume applications EDRJ systems can be customized designed to suit your application needs.

The chart below shows some of the more common options to select from.

Don't see what you are looking for? Call us and let's talk

TABLE 1

Item No	Available EDRJ 100/200 Options	Function Descriptions
A	HORN - GROUND OUTPUT	Provides a horn ground output. Requires Hardwire Input signal. Requires eliminating another option/pin.
B	2ND PTO OVERSPEED PROTECTION	Will disconnect the 2nd PTO when preset max RPM is exceeded. Can be different RPM value than 1st PTO. Requires eliminating another option/pin.
C	TIMER CONTROL FOR PTO #1	PTO engage time can be set. Requires eliminating another option/pin.
D	TIMER CONTROL FOR PTO #2	PTO engage time for 2nd PTO can be set. Requires eliminating another option/pin.
E	REMOTE ENGINE START - ENGINE RUNNING INTERLOCK	Programmable Interlock to avoid accidental start of running engine.
M	AUX #1 RELAY	Additional relay mounted in control box to provide additional input/output circuit
N	AUX #2 RELAY	Additional relay mounted in control box to provide additional input/output circuit. Requires eliminating another option/pin.
F	ENGINE RUNNING OUTPUT SIGNAL	Output signal to indicate running engine at remote control station. Requires eliminating another option/pin.
G	SERVICE BRAKE OUTPUT SIGNAL	Output signal to indicate running engine at remote control station. Requires eliminating another option/pin.
H	PARKING BRAKE OUTPUT SIGNAL	Output signal to indicate running engine at remote control station. Requires eliminating another option/pin.
I	NEUTRAL SIGNAL OUTPUT SIGNAL	Output signal to indicate running engine at remote control station. Requires eliminating another option/pin.
J	DRIVE SIGNAL OUTPUT SIGNAL	Output signal to indicate running engine at remote control station. Requires eliminating another option/pin.
K	(IN01) PTO ON OUTPUT SIGNAL	Output signal to indicate running engine at remote control station. Requires eliminating another option/pin.
L	CHECK ENGINE LIGHT (MIL) OUTPUT SIGNAL	Output signal to indicate running engine at remote control station. Requires eliminating another option/pin.
O	AUX #3 RELAY	Additional relay mounted in control box to provide additional input/output circuit. Requires eliminating another option/pin.
P	AUTO NEUTRAL	For vehicle equipped with Allison transmission. Will shift transmission into neutral when the vehicle is stationary and a PTO signal is detected. Requires eliminating another option/pin.
Q	WORK BRAKE ROAD SPEED	Limits road speed when work brake function is active.

Note: Some functions shown here may require the omission of standard options on the base EDRJ products.

Connection Harnesses



Simple Easy connection harness for each OEM application

	Freightliner	Western Star	Kenworth	Petterbilt	Navistar	Mack	Volvo	Hino
ITF101K	2010 2015	2010 2015	2010 Present	2010 Present	2010 Present			2010 2015
ITF103K	2016 Present	2016 Present						
ITF104K						2010 Present	2010 Present	
ITF105K								2016 2018

- The end connectors shown below are used to tie into the J1939 circuit. Kits also include the 8' lead harness PN# EJH100.

- EDRJ units are typically mounted inside the cab but can be can be mounted in exterior body enclosures

