

# 2015 L83 ECM CONNECTOR X1

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Pin	Color	Circuit	Function	Goes To	Notes
1	-	-	EMPTY		
2	D-BU/WH	7446	Fuel Line Pressure Sensor Signal Pin 1	x125 - 8	fuel pressure sensor (58psi system from tank to engine) IS THIS NEEDED IN SWAP?
3	-	-	EMPTY		
4	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal Pin 4		part of multifunction air intake sensor
5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5 Volt Reference Pin 2		part of multifunction air intake sensor
6	L-GN	380	A/C Refrigerant Pressure Sensor Signal		body control module and hvac module control ac, no way to use ecm, so remove
7	-	-	EMPTY		
8	BK/YE	7447	Fuel Line Pressure Sensor Low Reference Pin 2	x125 - 9	fuel pressure sensor (58psi system from tank to engine) IS THIS NEEDED IN SWAP?
9	D-BU/WH	890	Fuel Tank Pressure Sensor Signal		part of fuel sender unit in fuel tank, evap emissions
10	YE/RD	2709	Fuel Tank Pressure Sensor 5 Volt Reference	x125 - 16	part of fuel sender unit in fuel tank, evap emissions
11	-	-	EMPTY		
12	-	-	EMPTY		
13	D-BU/GY	636	Outside Ambient Air Temperature Sensor Signal		
14	WH/RD	1164	Accelerator Pedal Position 5 Volt Reference (1) Pin D	x115 - 18	goes to pin D on gas pedal
15	YE/WH	1161	Accelerator Pedal Position Signal (1) Pin E	x115 - 10	goes to pin E on gas pedal
16	-	-	EMPTY		
17	-	-	EMPTY		
18	-	-	EMPTY		
19	-	-	EMPTY		
20	-	-	EMPTY		
21	BN/RD	2700	A/C Pressure Sensor 5 Volt Reference Pin 2		body control module and hvac module control ac, no way to use ecm, so remove
22	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference Pin 1		body control module and hvac module control ac, no way to use ecm, so remove
23	-	-	EMPTY		
24	BN/RD	7445	Fuel Line Pressure Sensor 5 Volt Reference Pin 3	x125 - 18	fuel pressure sensor (58psi system from tank to engine) IS THIS NEEDED IN SWAP?
25	D-BU/VT	1589	Primary Fuel Level Sensor Signal		part of fuel sender unit in fuel tank, evap emissions
26	BK/L-GN	6281	Fuel Level/Tank Pressure Sensor Low Reference	x125 - 12	part of fuel sender unit in fuel tank, evap emissions
27	-	-	EMPTY		
28	-	-	EMPTY		
29	-	-	EMPTY		
30	BK/D-BU	1271	Accelerator Pedal Position Low Reference (1) Pin F	x115 - 19	goes to pin F on gas pedal
31	-	-	EMPTY		
32	WH/GY	459	A/C Compressor Clutch Relay Control		body control module and hvac module control ac, no way to use ecm, so remove
33	BN/RD	1274	Accelerator Pedal Position 5 Volt Reference (2) Pin C	x115 - 25	goes to pin C on gas pedal
34	L-GN/WH	1162	Accelerator Pedal Position Signal (2) Pin B	x115 - 26	goes to pin B on gas pedal
35	-	-	EMPTY		
36	D-BU/BK	7493	High Speed GMLAN Serial Data (+)(3)		went to fuel pump control module
37	WH	7494	High Speed GMLAN Serial Data -(3)		went to fuel pump control module
38	WH	1579	Fuel Temperature/Composition Signal E85 Flex		programming should disable flex fuel function if not using
39	D-BU	2500	High Speed GMLAN Serial Data (+) (1)		goes to TCM pin 10, from TCM 14 to x115-6 will go to OBD2 Port 6
40	WH	2501	High Speed GMLAN Serial Data -(1)		goes to TCM pin 11, from TCM 13 to x115-5 will go to OBD2 Port 14
41	-	-	EMPTY		
42	-	-	EMPTY		
43	-	-	EMPTY		
44	GY	5660	Fuel Pump Controller Data Out Signal		this may work for fuel pump relay control???
45	-	-	EMPTY		
46	BN/WH	419	Check Engine Indicator Control	x115 - 3	ecm supplies ground to activate check engine light
47	WH	5359	Brake Pedal Position Sensor - Brake Apply Sensor Control Pin 6		not sure what to do with this for swap, is it needed?
48	D-BU/YE	5361	Brake Pedal Position Sensor - Brake Apply Sensor Signal Pin 4		not sure what to do with this for swap, is it needed?
49	-	-	EMPTY		
50	-	-	EMPTY		
51	VT/L-GN	439	Run/Crank Ignition 1 Voltage ECM x1 - 51		this is what "powers up" the ecm, and in turn ecm commands powertrain relay
52	RD/BN	440	Battery Positive Voltage		battery 12v+ feed to ecm, hot all the time
53	BK/PU	1272	Accelerator Pedal Position Low Reference (2) Pin A	x115 - 27	goes to pin A on gas pedal
54	-	-	EMPTY		
55	-	-	EMPTY		
56	-	-	EMPTY		
57	WH/D-BU	6311	Cruise/ETC/TCC Brake Signal		brake lamp signal?
58	-	-	EMPTY		
59	BN/YE	473	High Speed Cooling Fan Relay Control		can be used for single fan?
60	-	-	EMPTY		
61	-	-	EMPTY		
62	VT/D-BU	5291	Powertrain Main Relay Fused Supply (2)		key hot from powertrain relay 20 amp F44UA fuse
63	YE/BK	625	Starter Enable Relay Control		ECM wont be used to control starter
64	-	-	EMPTY		
65	-	-	EMPTY		
66	WH	1310	EVAP Canister Vent Solenoid Control		
67	VI/D-BU	5292	Powertrain Main Relay Fused Supply (3)		key hot from powertrain relay 20 amp F45UA fuse
68	BK/BN	5360	Brake Pedal Position - Brake Apply Sensor Low Reference Pin 5		not sure what to do with this for swap, is it needed?
69	-	-	EMPTY		
70	VT/YE	5985	Accessory Wakeup Serial Data		12v+ key hot, I tied this into pin 51 with key hot.
71	-	-	EMPTY		
72	YE	5991	Powertrain Relay Coil Control		this controls powertrain relay that powers up other key hot circuits to pcm, coils, maf...
73	VT/D-BU	5290	Powertrain Main Relay Fused Supply (1)		key hot from powertrain relay 30 amp F51UA fuse