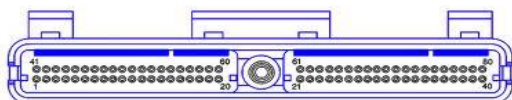


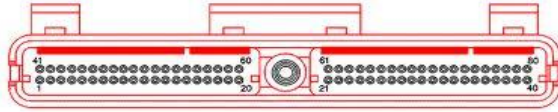
MOPAR LS EFI/IGNITION WIRING PINOUTS



PCM connector (BLUE)

Pin	Wire Color	Circuit #	Function
1	BLK	451	PCM Ground
2	LT GRN	1867	12 Volt Reference- Crankshaft Position Sensor B+ Supply
3	PNK/BLK	1746	Fuel Injector 3 Control on Factory Harness (Swap pin from Blue 4- Fuel Injector 2 Control) to this position
4	LT GRN/BLK	1745	Fuel Injector 2 Control on Factory Harness (Swap pin from Blue 3- Fuel Injector 3 Control) to this position
5	--	--	Not Used
6	--	--	Not Used
7	--	--	Not Used
8	GRA	596	5 Volt Reference TPS
9	--	--	Not Used
10	--	--	Not Used
11	--	--	Not Used
12	DK BLU/WHT	1869	Crankshaft Position Sensor Signal
13-16	--	--	Not Used
17	--	--	Not Used
18	--	--	Not Used
19	PNK	439	PCM Ignition supply (+ when on and during cranking)
20	ORN	340	PCM Battery Supply Positive Voltage
21	YEL/BLK	1868	Crankshaft Position sensor ground
22	--	--	Not Used
23	GRA	720	Not Used
24	--	--	Not Used
25	--	--	Not Used
26	TAN	1667/413	HO2S Low Signal [Bank 2 Sensor 1]
27	--	--	Not Used
28	--	--	Not Used
29	TAN/WHT	1653/413	HO2S Low Signal [Bank 1 Sensor 1]
30-31	--	--	Not Used
32	GRA	48	Clutch Pedal Position Switch Signal (Manual Trans. Only)
33	PPL	420	TCC Brake Switch Signal (will only use for Case Learn procedure on retrofits)
34	ORN/BLK	434	(Optional) Neutral Safety Switch Signal (GND when in Park/Neutral)-PCM can be programmed to accept single wire park/neutral signal on this pin
35	--	--	Not Used
36	BLK	1744	Fuel Injector 1 Control
37	YEL/BLK	846	Fuel Injector 6 Control
38-39	--	--	Not Used
40	BLK	451	PCM Ground

41	--	--	Not Used
42	DK GRN	335	Low Speed Cooling Fan Relay Control (Primary fan) - Supplies GND- Optional
43	RED/BLK	877	Fuel Injector 7 Control on Factory Harness (Swap pin from Blue 44- Fuel Injector 4 Control) to this position
44	LT BLU/BLK	844	Fuel Injector 4 Control on Factory Harness (Swap pin from Blue 43- Fuel Injector 7 Control) to this position
45	--	--	Not Used
46	--	--	Not Used
47	--	--	Not Used
48	GRA	416	5 Volt Reference (MAP Sensor)
49-50	--	--	Not Used
51	--	--	Not Used
52	--	--	Not Used
53	--	--	Not Used
54	BLK	407	Low Reference (MAP Sensor Ground)
55	--	--	Not Used
56	--	--	Not Used
57	ORN	340	Battery Positive Voltage
58	DK GRN	1049	Serial Data to OBD2 Connector
59	--	--	Not Used
60	BLK	452	Low Reference TPS GND
61	PNK/BLK	632	Low Reference (Camshaft Position Sensor) GND
62-64	--	--	Not Used
65	--	--	Not Used
66	PPL	1666	HO2S High Signal [Bank 2 Sensor 1]
67	--	--	Not Used
68	--	--	Not Used
69	PPL/WHT	1665	HO2S High Signal [Bank 1 Sensor 1]
70	--	--	Not Used
71-72	--	--	Not Used
73	BRN/WHT	633	Camshaft (CMP) Sensor Signal
74	YEL	410	Engine Coolant Temp (ECT) Sensor Signal (to sender)
75	--	--	Not Used
76	BLK/WHT	845	Fuel Injector 5 Control
77	DK BLU/WHT	878	Fuel Injector 8 Control
78	--	--	Not Used
79	--	--	Not Used
80	BLK	407	Low Reference Engine Coolant Temp (ECT) GND



PCM connector (RED)

Pin	Wire Color	Circuit #	Function
1	BLK	451	PCM Ground
2	--	--	Not Used
3	--	--	Not Used
4	--	--	Not Used
5	--	--	Not Used
6	--	--	Not Used
7	--	--	Not Used
8	--	--	Not Used
9	DK GRN/WHT	465	Fuel Pump Relay Control [Primary]
10	WHT	121	Engine Speed Signal- Tachometer (Change PCM to 8 cyl signal)
11-12	--	--	Not Used
13	--	--	Not Used
14	--	--	Not Used
15	--	--	Not Used
16	--	--	Not Used
17	--	--	Not Used
18	--	--	Not Used
19	--	--	Not Used
20	LT GRN/BLK	822	VSS Low Signal (Optional- Turn off in PCM if not used)
21	PPL/WHT	821	VSS High Signal (Optional- Turn off in PCM if not used)
22-23	--	--	Not Used
24	DK BLU	417	TPS Sensor Signal Pin "C"
25	TAN	472	IAT Sensor Signal Pin "B"
26	PPL	2121	IC 1 Control
27	RED	2127	IC 7 Control on Factory Harness (Swap pin from Red 29- IC 4 Control) to this position
28	LT BLU/WHT	2126	IC 6 Control
29	DK GRN/WHT	2124	IC 4 Control on Factory Harness (Swap pin from Red 27- IC 7 Control) to this position
30	--	--	Not Used - TURN off VATS in PCM
31	YEL	492	MAF Sensor Signal Pin "A" (Not needed for Speed Density)
32	LT GRN	432	MAP Sensor Signal Pin "B"
33	DK BLU	473	High Speed Cooling Fan Relay Control (Optional-use for 2nd Fan)
34	--	--	Not Used
35	--	--	Not Used
36	--	--	Not Used
37	--	--	Not Used
38	--	--	Not Used
39	RED	631	12 Volt Reference CMP Battery + to Pin "C"
40	BLK	451	PCM Ground

41	--	--	Not Used
42	--	--	Not Used
43	--	--	Not Used
44	--	--	Not Used
45	--	--	Not Used
46	BRN/WHT	419	(MIL) Control- to Check Engine Light (Use 194 type bulb)
47	--	--	Not Used
48	--	--	Not Used
49	--	--	Not Used
50	DK GRN/WHT	817	VSS Signal (4K)- Optional
51	--	--	Not Used
52	--	--	Not Used
53	GRA/BLK	1687	Ignition Retard Signal- Optional (Delete or could be used for Nitrous Retard/Traction Control Etc.
54	--	--	Not Used
55-56	--	--	Not Used
57	PPL	719	Low Reference IAT sensor Pin "A"
58-59	--	--	Not Used
60	BRN	2129	Low Reference (GND) Ignition Coils bank 1 (1-3-5-7)
61	BRN/WHT	2130	Low Reference (GND) Ignition Coils Bank 2 (2-4-6-8)
62	--	--	Not Used
63	--	--	Not Used
64	--	--	Not Used
65	--	--	Not Used
66	PPL/WHT	2128	IC 8 Control
67	RED/WHT	2122	IC 2 Control on Factory Harness (Swap pin from Red 69- IC 3 Control) to this position
68	DK GRN	2125	IC 5 Control
69	LT BLU	2123	IC 3 Control on Factory Harness (Swap pin from Red 67- IC 2 Control) to this position
70-75	--	--	Not Used
76	LT GRN/WHT	1749	IAC Coil B High Control Pin "B"
77	LT GRN/BLK	444	IAC Coil B Low Control Pin "A"
78	LT BLU/BLK	1748	IAC Coil A Low Control Pin "C"
79	LT BLU/WHT	1747	IAC Coil A High Control Pin "D"
80	--	--	Not Used

- NOTES: #1- In your tuning software, assign the proper firing order in the injector bank tables so the PCM can properly report codes/misfires, etc. ☒
- #2- In your tuning software, turn of VATS
- #3- Turn of VSS in tuning software if not used
- #4- Change Tach signal to 8 cyl in PCM (LS1 motors use 4 cyl signal)
- #5- Change Blue pin 34 in PCM to use Neutral Safety Switch if desired
- #6- Use 2001 or 2002 F-body (Camaro/Trans-am) 6-speed LS1 base tune with this wiring pinout