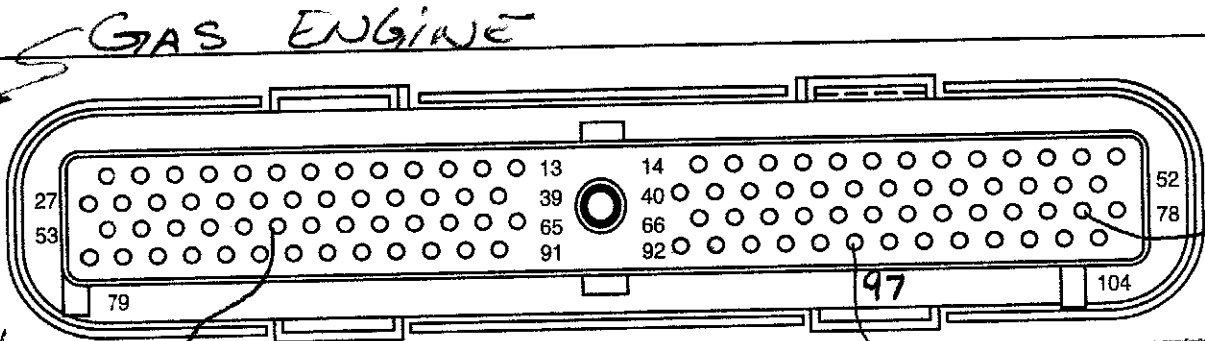


C175 Gasoline engines

12A581

A147
Powertrain Control
Module (PCM)
(12A650)



* with automatic transmission
** California

Cut this wire

PIN 1 SPEED CHANGER PIN 6

- Power

PIN 3 + Power

Pin	Circuit	Circuit Function
1	1025 (OG/YE)	Ignition coil, control
2	-	not used
3	570 (BK/WH)	Ground
4	322 (LB/YE)	Customer access 1
5	-	not used
6	237 (OG/YE)*	Shift solenoid A
7	-	not used
8	-	not used
9	-	not used
10	-	not used
11	315 (VT/OG)*	Shift solenoid B
12	911 (WH/LG)*	Transmission Control Indicator Lamp (TCIL)
13	107 (VT)	Module programming signal
14	-	not used
15	915 (PK/LB)	SCP Bus -
16	914 (TN/OG)	SCP Bus +
17	-	not used
18	-	not used
19	-	not used
20	924 (BN/OG)*	Powertrain Control Module (PCM) (12A650), to Electronic Pressure Control (EPC) solenoid
21	349 (DB)	Crankshaft position sensor (6C315) +
22	350 (GY)	Crankshaft position sensor (6C315) -
23	570 (BK/WH)	Ground
24	570 (BK/WH)	Ground
25	567 (LB/YE)	Ground

Pin	Circuit	Circuit Function
26	1024 (LG/WH)	Ignition coil, control
27	1021 (LG/YE)	Ignition coil, control
28	-	not used
29	224 (TN/WH)	Powertrain Control Module (PCM) (12A650), to transmission overdrive cancel switch
30	-	not used
31	-	not used
32	311 (DG/VT)	Knock sensor (12A699)
33	676 (PK/OG)	Vehicle Speed Sensor (VSS) -
34	1144 (WH/YE)*	Digital Transmission Range (DTR) sensor TR1
35	392 (RD/LG)**	Heated Oxygen Sensor (HO2S) #21 (9G444), input
36	968 (TN/LB)	Mass Air Flow (MAF) sensor (12B579), signal, return
37	923 (OG/BK)*	Transmission Fluid Temperature (TFT) sensor, input
38	-	not used
39	743 (GY)	Intake Air Temperature (IAT) sensor (12A697), input
40	238 (DG/YE)	Fuel pump relay, switched power, output
41	439 (TN/LG)	A/C pressure switch, signal
42	1101 (GY/RD)	Injector 10 (9F593), control
43	71 (OG/LG)	Powertrain Control Module (PCM) (12A650) - Data output link
44	-	not used
45	-	not used
46	-	not used
47	360 (BN/PK)**	EGR Vacuum Regulator (EVR), control
48	76 (LG/WH)	Customer access 1

150-17 Connector Views

Pin	Circuit	Circuit Function
50	*1143 (DG/YE)	Digital Transmission Range (DTR) sensor TR4
51	570 (BK/WH)	Ground
52	1028 (WH/PK)	Ignition coil, control
53	1030 (DG/VT)	Ignition coil, control
54	*480 (VT/YE)	Torque Converter Clutch (TCC) solenoid
55	719 (RD/WH)	Voltage supplied at all times (overload protected)
56	191 (LG/BK)	Powertrain Control Module (PCM) (12A650), EVAP canister purge valve
57	310 (YE/RD)	Knock sensor (12A699)
58	679 (GY/BK)	Vehicle Speed Sensor (VSS) +
59	*970 (DG/WH) Sig IN	Powertrain Control Module (PCM) (12A650) - Output Shaft Speed (OSS) sensor (7M101)
60	74 (GY/LB)	Heated Oxygen Sensor (HO2S) #11 (9G444), input
61	-	not used
62	791 (RD/PK)**	Fuel tank pressure transducer sensor (9C968)
63	-	not used
64	199 (LB/YE)	Digital Transmission Range (DTR) sensor, to Powertrain Control Module (PCM) (12A650)
65	352 (BN/LG)**	Differential Pressure Feedback EGR (DPFE) sensor, input
66	1102 (YE/LG)	Cylinder-head temperature sensor (6G004), to, Powertrain Control Module (PCM) (12A650)
67	91 (VT/WH)**	Canister vent
68	1100 (GY/BK)	Injector 9 (9F593), control
69	331 (PK/YE)	A/C clutch relay, control
70	-	not used
71	361 (RD)	Voltage supplied in Start and Run (overload protected)
72	561 (TN/RD)	Injector 7, control
73	559 (TN/BK)	Injector 5, control
74	557 (BN/YE)	Injector 3, control
75	555 (TN)	Injector 1, control
76	570 (BK/WH)	Ground

TOPINS
CUT
TO PING

-POWER

PIN
4

Pin	Circuit	Circuit Function
77	570 (BK/WH)	Ground
78	1027 (PK/LB)	Ignition coil, control
79	1029 (WH/RD)	Ignition coil, control
80	926 (LB/OG)	Fuel pump relay, control
81	*925 (WH/YE)	Injector pressure sensor, input
82	1142 (WH/RD)	Ignition coil, control
83	264 (WH/LB)	Idle air control valve (IAC) (9F715), control
84	136 (DB/YE) Sig IN	Powertrain Control Module (PCM) (12A650) - Output Shaft Speed (OSS) sensor (7M101)
85	795 (DG)	Camshaft position sensor (6B288), to, Powertrain Control Module (PCM) (12A650)
86	-	not used
87	94 (RD/BK)	Heated Oxygen Sensor (HO2S) #12 (9F472), input
88	967 (LB/RD)	Mass Air Flow (MAF) sensor (12B579), output
89	355 (GY/WH)	Throttle Position Sensor (TPS) (9B989), input
90	351 (BN/WH)	Reference, voltage
91	359 (GY/RD)	signal, return
92	810 (RD/LG)	Brake pedal position switch (13480), input
93	387 (RD/WH)	Heated Oxygen Sensor (HO2S) #11 (9G444), head
94	388 (YE/LB)	Heated Oxygen Sensor (HO2S) #12 (9F472), head
95	389 (WH/BK)**	Heated Oxygen Sensor (HO2S) #21 (9G444), head
96	-	not used
97	361 (RD)	Voltage supplied in Start and Run (overload protected)
98	562 (LB)	Injector 8, control
99	560 (LG/OG)	Injector 6, control
100	558 (BN/LG)	Injector 4, control
101	556 (WH)	Injector 2, control
102	1141 (YE/BK)	Ignition coil, control
103	570 (BK/WH)	Ground
104	1026 (PK/WH)	Ignition coil, control

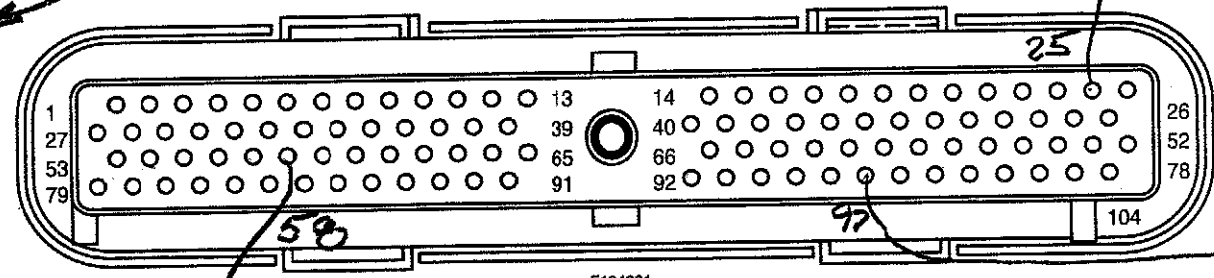
+
PIN
3

C175 Diesel engines

12A581

A147
Powertrain Control
Module (PCM)
(12A650)

DIESEL ENGINE



F104001

Cut this wire → *PIN 2 SPEED CHANGER PIN 6*

Pin	Circuit	Circuit Function
1	-	not used
2	-	not used
3	3996 (RD/YE)	Manifold intake air heater relay, monitor
4	-	not used
5	162 (LG/RD)	Parking brake switch (15A851)
6	237 (OG/YE)*	Shift solenoid A
7	-	not used
8	1277 (WH/LG)	Glow plug relay, monitor
9	-	not used
10	1285 (RD/LG)	idle validation switch
11	315 (VT/OG)*	Shift solenoid B
12	911 (WH/LG)*	Transmission Control Indicator Lamp (TCIL)
13	107 (VT)	Module programming signal
14	-	not used
15	915 (PK/LB)	SCP Bus -
16	914 (TN/OG)	SCP Bus +
17	1144 (WH/YE)*	Digital Transmission Range (DTR) sensor, TR1
18	331 (PK/YE)	A/C clutch relay, control
19	76 (LG/WH)	not used
20	924 (BN/OG)*	Powertrain Control Module (PCM) (12A650), to transmission coast clutch solenoid
21	795 (DG)	Camshaft position sensor (6B288)
22	-	not used
23	-	not used

Pin	Circuit	Circuit Function
24	357 (YE/WH)	Powertrain Control Module (PCM) (12A650), to, Generic Electronic Module (GEM) (14B205)
25	567 (LB/YE)	Ground
26	-	not used
27	-	not used
28	-	not used
29	224 (TN/WH)*	Powertrain Control Module (PCM) (12A650), to transmission overdrive cancel switch
	306 (TN/LB)**	Brake pedal position switch (13480), input
30	553 (VT/LB)	Exhaust Back Pressure (EBP) sensor, monitor
31	307 (BK/YE)	Brake pressure switch (2B264), input
32	-	not used
33	-	not used
34	-	not used
35	1183 (WH/YE)	Generator
36	1280 (GY/RD)	Water-in-fuel sensor
37	923 (OG/BK)*	Transmission Fluid Temperature (TFT) sensor, input
38	354 (LG/RD)	Engine Coolant Temperature (ECT) sensor (12A648), input
39	743 (GY)	Intake Air Temperature (IAT) sensor (12A697), input
40	787 (PK/BK)	Fuel pump, Power
41	439 (TN/LG)	A/C high pressure switch (19D594)
42	318 (GY/RD)	Exhaust Pressure Regulator (EPR), control
43	71 (OG/LG)	Powertrain Control Module (PCM) (12A650) - Data output link

PIN 4

- POWER
* with automatic transmission California
→ *PIN 4*
+ POWER
→ *PIN 3*

DIESEL ENGINE

Pin	Circuit	Circuit Function
44	-	not used
45	203 (OG/LB)	Cruise set, indicator, control
46	-	not used
47	1275 (WH/RD)	Waste gate solenoid, control
48	818 (GY/WH)	Injector Driver Module (IDM)
49	1145 (DB/WH)*	Digital Transmission Range (DTR) sensor TR2
50	*1143 (DG/YE)	Digital Transmission Range (DTR) sensor TR4
51	570 (BK/WH)	Power
52	-	not used
53	-	not used
54	*480 (VT/YE)	Torque Converter Clutch (TCC) solenoid
55	729 (RD/WH)	Voltage supplied at all times (overload protected)
56	-	not used
57	-	not used
58	679 (GY/BK)	Vehicle Speed Sensor (VSS) +
59	136 (DB/YE)* Sig IN	Powertrain Control Module (PCM) (12A650), - Output Shaft Speed (OSS) sensor (7M101)
60	1185 (YE)	Generator and Regulator
61	151 (LB/BK)	Speed control switch, input
62	1291 (RD/YE)	Air Charge Temperature (ACT) sensor
63	-	not used
64	199 (LB/YE)*	Digital Transmission Range (DTR) sensor, to, Powertrain Control Module (PCM) (12A650)
65	96 (LB)	Camshaft position sensor (6B288), Signal return
66	322 (LB/YE)	not used
67	904 (LG/RD)	Generator/Battery indicator, control
68	-	not used
69	-	not used
70	464 (BK/PK)	Low coolant indicator, control
71	361 (RD)	Voltage supplied in Start and Run (overload protected)
72	-	not used
73	-	not used

TO PIN 1
CUT
TO PIN 6

Pin	Circuit	Circuit Function
74	-	not used
75	-	not used
76	-	not used
77	570 (BK/WH)	Power
78	-	not used
79	358 (LG/BK)	Manifold Absolute Pressure (MAP) sensor, to, PCM train Control Module (PCM) (12A650)
80	814 (WH/BK)	Injector Driver Module (IDM) power relay, control
81	*925 (WH/YE)	Injector pressure sensor, input
82	-	not used
83	552 (YE/RD)	Injector pressure sensor, control
84	970 (DG/WH)	Turbine shaft speed sensor (7M101)
85	-	not used
86	-	not used
87	812 (DB/LG)	Injection pressure sensor, monitor
88	-	not used
89	355 (GY/WH)	Throttle Position Sensor (TPS) (9B989), input
90	351 (BN/WH)	Reference voltage
91	359 (GY/RD)	Signal return
92	810 (RD/LG)	Brake pedal position switch (13480), input
93	-	not used
94	926 (LB/OG)	Fuel pump relay, memory
95	821 (BN/OG)	Injector Driver Module (IDM)
96	817 (YE/LB)	Injector Driver Module (IDM)
97	361 (RD)	Voltage supplied in Start and Run (overload protected)
98	462 (VT)	Power, Hot with Low Beams on
99	-	not used
100	-	not used
101	1086 (VT/OG)	Voltage supplied at all times (overload protected)
102	-	not used
103	570 (BK/WH)	Power
104	-	not used

TO
PIN
3