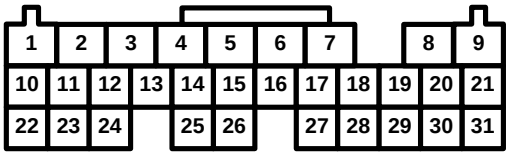
Engine/Powertrain Control Module Terminal Arrangement



wire side of female terminals

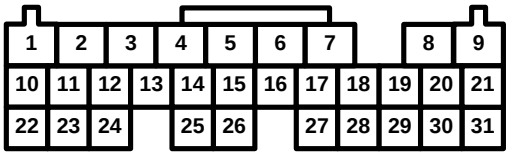
ECM/PCM Inputs and Outputs at Connector A (31P)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1 *9	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO2S) HEATER CONTROL)	Drives primary HO2S (sensor 1) heater	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
1 *6	GRN	AFSHTC (AIR FUEL RATIO (A/F) SENSOR HEATER CONTROL)	Drives A/F sensor (sensor 1) heater	With ignition switch ON (II): battery voltage With fully warmed up engine running: about 0 V
2	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the ECM/PCM circuit	With ignition switch ON (II): battery voltage With ignition switch OFF: about 0 V
3	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the ECM/PCM circuit	With ignition switch ON (II): battery voltage With ignition switch OFF: about 0 V
4	BLK	PG2 (POWER GROUND)	Ground for the ECM/PCM circuit	Less than 1.0 V at all times
5	BLK	PG1 (POWER GROUND)	Ground for the ECM/PCM circuit	Less than 1.0 V at all times
6 *9	WHT	PHO2S (PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO2S), SENSOR 1)	Detects primary HO2S sensor (sensor 1) signal	With throttle fully opened from idle with fully warmed up engine: about 0.6 V With throttle quickly closed: below 0.4 V
6 *6	RED	AFS (AIR FUEL RATIO (A/F) SENSOR SIDE)	Detects A/F sensor (sensor 1) signal	
7	BLU	CKP (CRANKSHAFT POSITION (CKP) SENSOR)	Detects CKP sensor signal	With engine running: pulses
8	YEL	VCCR (SENSOR VOLTAGE RETURN)	Detects sensor voltage	With ignition switch ON (II): about 5 V With ignition switch OFF: about 0 V
9	RED/BLU	KS (KNOCK SENSOR)	Detects knock sensor signal	With engine knocking: pulses With ignition switch ON (II): about 5 V
10	GRN/YEL	SG2 (SENSOR GROUND)	Sensor ground	Less than 1.0 V at all times
11	GRN/WHT	SG1 (SENSOR GROUND)	Sensor ground	Less than 1.0 V at all times
12	BLK/RED	IACV (IDLE AIR CONTROL (IAC) VALVE)	Drives IAC valve	With engine running: duty controlled With ignition switch ON (II): about 5 V
13 *4	WHT/BLK	EGRP (EXHAUST GAS RECIRCULATION (EGR) VALVE POSITION SENSOR)	Detects EGR valve position sensor signal	With engine running: 1.2–2.0 V (depending on EGR valve lift)
14 *11	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO2S) HEATER CONTROL)	Drives secondary HO2S (sensor 2) heater	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled

*4: D17A2, D17A6 engines ('01-'03 models) and '04 model
*6: D17A6 engine and '04 model
*9: D17A1, D17A2 engines ('01-'03 models)
*11: D17A1, D17A6 engines

Engine/Powertrain Control Module Terminal Arrangement



wire side of female terminals

ECM/PCM Inputs and Outputs at Connector A (31P) NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
15	RED/BLK	TPS (THROTTLE POSITION (TP) SENSOR)	Detects TP sensor signal	With throttle fully open: about 4.8 V With throttle fully closed: about 0.5 V
16 *6	RED/YEL	AFS (AIR FUEL RATIO (A/F) SENSOR SIDE)	Detects A/F sensor (sensor 1) signal	
18 *8	WHT/GRN	VSS (VEHICLE SPEED SENSOR (VSS))	Detects VSS signal	With ignition switch ON (II) and front wheels rotating: cycles 0 V to about 5 V or battery voltage
18 *7	BLU/WHT	VEL2 (CVT SPEED SENSOR 2)	Detects CVT speed sensor 2	Depending on vehicle speed: pulses When vehicle is stopped: about 0 V
19	GRN/RED	MAP (MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR)	Detects MAP sensor signal	With ignition switch ON (II): about 3 V At idle: about 1.0 V (depending on engine speed)
20	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage	With ignition switch ON (II): about 5 V With ignition switch OFF: about 0 V
21	YEL/RED	VCC1 (SENSOR VOLTAGE)	Provides sensor voltage	With ignition switch ON (II): about 5 V With ignition switch OFF: about 0 V
22 *6	WHT	AFSHTC (AIR FUEL RATIO (A/F) SENSOR HEATER CONTROL SIDE)	Drives A/F sensor (sensor 1) heater	With ignition switch ON (II): battery voltage
23	BRN/YEL	LG2 (LOGIC GROUND)	Ground for the ECM/PCM circuit	Less than 1.0 V at all times
24	BRN/YEL	LG1 (LOGIC GROUND)	Ground for the ECM/PCM circuit	Less than 1.0 V at all times
25 *11	WHT/RED	SHO2S (SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO2S), SENSOR 2)	Detects secondary HO2S (sensor 2) signal	With throttle fully opened from idle with fully warmed up engine: about 0.6 V With throttle quickly closed: below 0.4 V
26	GRN	CMP (TDC) (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR))	Detects CMP (TDC) sensor	With engine running: pulses
27	BRN	IGPLS4 (No. 4 IGNITION COIL PULSE)	Drives No. 4 ignition coil	With ignition switch ON (II): about 0 V With engine running: pulses
28	WHT/BLU	IGPLS3 (No. 3 IGNITION COIL PULSE)	Drives No. 3 ignition coil	
29	BLU/RED	IGPLS2 (No. 2 IGNITION COIL PULSE)	Drives No. 2 ignition coil	
30	YEL/GRN	IGPLS1 (No. 1 IGNITION COIL PULSE)	Drives No. 1 ignition coil	

*6: D17A6 engine and '04 model
*7: CVT
*8: M/T, A/T
*11: D17A1, D17A6 engines