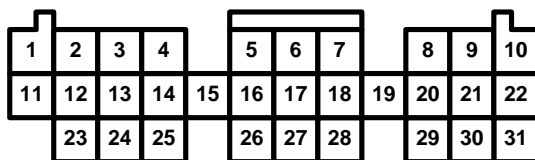


Engine Control Module Terminal Arrangement



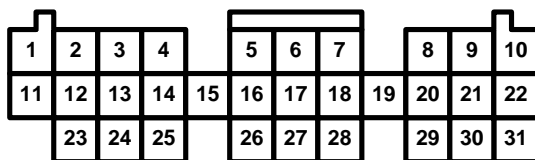
wire side of female terminals

ECM Inputs and Outputs at Connector C (31P)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives primary heated oxygen sensor heater	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
2	WHT/GRN	ALTC (ALTERNATOR CONTROL)	Sends alternator control signal	With fully warmed up engine running: about 8 V With engine running at low electrical load: about 0 V
4	WHT	IGPLS1 (No. 1 IGNITION COIL PULSE)	Drives No. 1 ignition coil	With ignition switch ON (II): 0 V With engine running: pulses
5	WHT/RED	ALTF (ALTERNATOR FR SIGNAL)	Detects alternator FR signal	With fully warmed up engine running: 0 V – battery voltage (depending on electrical load)
7	GRN/WHT	SG1 (SENSOR GROUND)	Ground for MAP sensor	Less than 1.0 V at all times
8	BLU	CKPP (CKP SENSOR P SIDE)	Detects CKP sensor	With engine running: pulses
9	WHT	CKPM (CKP SENSOR M SIDE)	Ground for CKP sensor	
10	BLU/BLK	VTM (VTEC OIL PRESSURE SWITCH SIGNAL)	Detects VTEC oil pressure switch signal	With engine at low engine speed: about 0 V With engine at high engine speed (vehicle running): battery voltage
11	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL)	Drives secondary heated oxygen sensor heater	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
12	WHT/GRN	IGPLS2 (No. 2 IGNITION COIL PULSE)	Drives No. 2 ignition coil	With ignition switch ON (II): 0 V With engine running: pulses
13	WHT/BLK	IGPLS3 (No. 3 IGNITION COIL PULSE)	Drives No. 3 ignition coil	
14	WHT/BLU	IGPLS4 (No. 4 IGNITION COIL PULSE)	Drives No. 4 ignition coil	
15	WHT/RED	SHO2S (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2)	Detects secondary heated oxygen sensor (sensor 2) signal	With throttle fully opened from idle with fully, warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V

Engine Control Module Terminal Arrangement



wire side of female terminals

ECM Inputs and Outputs at Connector C (31P)

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
16	WHT	PHO2S (PRIMARY HEATED OXYGEN SENSOR, SENSOR 1)	Detects primary heated oxygen sensor (sensor 1) signal	With throttle fully opened from idle with fully, warmed up engine: above 0.6 V With throttle quickly closed: below 0.4 V
17	GRN/RED	MAP (MANIFOLD ABSOLUTE PRESSURE SENSOR)	Detects MAP sensor signal	With ignition switch ON (II): about 3 V At idle: about 1.0 V (depending on engine speed)
18	GRN/YEL	SG2 (SENSOR GROUND)	Sensor ground	Less than 1.0 V at all times
19	YEL/RED	VCC1 (SENSOR VOLTAGE)	Power source to MAP sensor	With ignition switch ON (II): about 5 V With ignition switch OFF: about 0 V
20	GRN	TDC1P (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR) A P SIDE)	Detects CMP (TDC) sensor A	With engine running: pulses
21	RED	TDC1M (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR) A M SIDE)	Ground for CMP (TDC) sensor A	
22	RED/BLU	KS (KNOCK SENSOR)	Detects knock sensor signal	With engine knocking: pulses
24	WHT/BLK	ECS (AIR PUMP ELECTRIC CURRENT SENSOR)	Detects air pump electric current sensor signal	With ignition switch ON (II): 0.5 V With air pump working: about 2 – 5 V
25	RED/YEL	IAT (INTAKE AIR TEMPERATURE SENSOR)	Detects IAT sensor signal	With ignition switch ON (II): about 0.1 – 4.8 V (depending on intake air temperature)
26	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE SENSOR)	Detects ECT sensor signal	With ignition switch ON (II): about 0.1 – 4.8 V (depending on engine coolant temperature)
27	RED/BLK	TPS (THROTTLE POSITION SENSOR)	Detects TP sensor signal	With throttle fully open: about 4.8 V With throttle fully closed: about 0.3 V
28	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage	With ignition switch ON (II): about 5 V With ignition switch OFF: about 0 V
29	YEL	TDC2P (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR) B P SIDE)	Detects CMP (TDC) sensor B	With engine running: pulses
30	BLK	TDC2M (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR) B M SIDE)	Ground for CMP (TDC) sensor B	