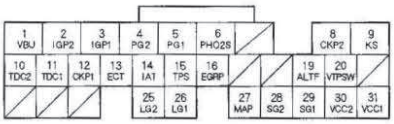
ECM Inputs and Outputs at Connector A (31P) – M/T



Wire side of female terminals

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	BRN	VBU (VOLTAGE BACK UP)	Power source for the ECM circuit. Power source for the DTC memory	Battery voltage at all this times
2	YEL/BLK	IGP2 (POWER SOURCE)	Power source for the ECM circuit	With the ignition switch ON (II): battery voltage With the ignition switch OFF: about 0 V
3	YEL/BLK	IGP1 (POWER SOURCE)	Power source for the ECM circuit	With the ignition switch ON (II): battery voltage With the ignition switch OFF: about 0 V
4	BLK	PG2 (POWER GROUND)	Ground for the ECM circuit	Less than 1.0 V at all times
5	BLK	PG1 (POWER GROUND)	Ground for the ECM circuit	Less than 1.0 V at all times
6	WHT	PHO2S (PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO2S) SENSOR 1)	Detects primary HO2S (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
8	BLU	CKP2 (CRANKSHAFT POSITION (CKP) 2 SENSOR)	Detects CKP sensor 2	With engine running : pulses
9	RED/BLU	KS (KNOCK SENSOR)	Detects knock sensor signal	With engine knocking: pulses
10	YEL	TDC 2 (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR) B)	Detects CMP (TDC)sensor B	With engine running: pulses
11	GRN	TDC 1 (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR) A)	Detects CMP (TDC)sensor A	With engine running: pulses
12	BLU/RED	CKP1 (CRANKSHAFT POSITION (CKP) 1 SENSOR)	Detects CKP sensor 1	With engine running: pulses
13	RED/WHT	ECT (ENGINE COOLANT TEMPERATURE (ECT) SENSOR)	Detects ECT sensor signal	With ignition switch ON (II): about 0.1 – 4.8 V (depending on engine coolant temperature)
14	RED/YEL	IAT (INTAKE AIR TEMPERATURE (IAT) SENSOR)	Detects IAT sensor signal	With ignition switch ON (II): about 0.1 – 4.8 V (depending on intake air temperature)
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	WHT/BLK	EGRP (EXHAUST GAS RECIRCULATION (EGR) VALVE POSITION SENSOR)	Detects EGR valve position sensor signal	At idle: about 1.2 V
19	WHT/RED	ALTF (ALTERNATOR FR SIGNAL)	Detects alternator FR signal	With fully warmed up engine running: 0 V-battery voltage (depending on electrical load)
20	BLU/BLK	VTPSW (VTEC OIL PRESSURE SWITCH)	Detects VTEC oil pressure switch signal	With engine at low engine speed: 0 V With engine at high speed: battery voltage
25	BRN/YEL	LG2 (LOGIC GROUND)	Ground for the ECM circuit	Less than 1.0 V at all times
26	BRN/YEL	LG1 (LOGIC GROUND)	Ground for the ECM circuit	Less than 1.0 V at all times
27	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
28	GRN/YEL	SG2 (SENSOR GROUND)	Sensor ground	Less than 1.0 V at all times
29	GRN/WHT	SG1 (SENSOR GROUND)	Ground for MAP sensor	Less than 1.0 V at all times
30	YEL/BLU	VCC2 (SENSOR VOLTAGE)	Provides sensor voltage	With ignition switch ON (II): about 5 V With ignition switch OFF: about 0 V
31	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

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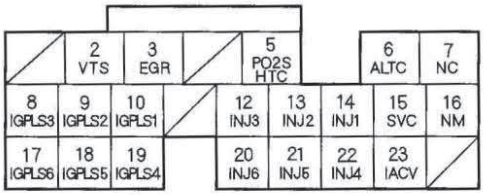
System Descriptions (cont'd)

ECM Inputs and Outputs at Connector B (24P) — M/T



Wire side of female terminals

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
2	GRN/YEL	VTS (VTEC SOLENOID VALVE)	Drives VTEC solenoid valve	With engine at low rpm: about 0 V With engine at high rpm: battery voltage
3	BLU/RED	EGR (EXHAUST GAS RECIRCULATION (EGR))	Drives EGR valve	With EGR operating duty controlled With EGR not operating: about 0 V
5	BLK/WHT	PO2SHTC (PRIMARY HEATED OXYGEN SENSOR (PRIMARY HO2S) HEATER CONTROL)	Drives primary HO2S heater	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
6	WHT/GRN	ALTC (ALTERNATOR CONTROL)	Sends alternator control signal	With fully warmed-up engine running: approx. 8 V
7	RED/YEL	NC (COUNTERSHAFT SPEED SENSOR)	Detects countershaft speed sensor signals	Depending on vehicle speed: pulses When engine stopped: about 0 V
8	WHT/RED	IGPLS3 (No. 3 IGNITION COIL PULSE)	Drives No. 3 ignition coil	With ignition switch ON (II): about 0 V With engine running: pulses
9	BLU/YEL	IGPLS2 (No. 2 IGNITION COIL PULSE)	Drives No. 2 ignition coil	
10	YEL/GRN	IGPLS1 (No. 1 IGNITION COIL PULSE)	Drives No. 1 ignition coil	
12	BLU	INJ3 (No. 3 INJECTOR)	Drives No. 3 injector	With ignition switch ON (II): battery voltage At idle: duty controlled
13	RED	INJ2 (No. 2 INJECTOR)	Drives No. 2 injector	
14	BRN	INJ1 (No. 1 INJECTOR)	Drives No. 1 injector	
15	LT BLU	SVC (INTAKE MANIFOLD RUNNER CONTROL)	Sends driving signal to Intake Air Bypass control unit	With engine speed above 3,600 rpm: 0 V With engine speed below 3,400 rpm: about 5 V
16	RED/WHT	NM (MAINSHAFT SPEED SENSOR)	Detects countershaft speed sensor signals	Depending on vehicle speed: pulses When engine stopped: about 0 V
17	BRN/WHT	IGPLS6 (No. 6 IGNITION COIL PULSE)	Drives No. 6 ignition coil	With ignition switch ON (II): about 0 V With engine running: pulses
18	BLK/RED	IGPLS5 (No. 5 IGNITION COIL PULSE)	Drives No. 5 ignition coil	
19	BLK/BLU	IGPLS4 (No. 4 IGNITION COIL PULSE)	Drives No. 4 ignition coil	
20	WHT/BLU	INJ6 (No. 6 INJECTOR)	Drives No. 6 injector	With ignition switch ON (II): battery voltage At idle: duty controlled
21	BLK/RED	INJ5 (No. 5 INJECTOR)	Drives No. 5 injector	
22	BLK	INJ4 (No. 4 INJECTOR)	Drives No. 4 injector	
23	BLU/BLK	IACV (IDLE AIR CONTROL (IAC) VALVE)	Drives IAC valve	At idle: duty controlled

*: J32A2 engine

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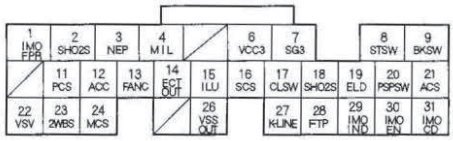
ECM Inputs and Outputs at Connector E (31P) – M/T



Wire side of female terminals

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
1	GRN/YEL	IMOFPR (IMMOBILIZER FUEL PUMP RELAY)	Drive fuel pump	0 V for 2 seconds after turning ignition switch ON (II), then battery voltage
2	BLK/WHT	SO2SHTC (SECONDARY HEATED OXYGEN SENSOR (SECONDARY HO2S) HEATER CONTROL)	Drives secondary HO2S heater	With ignition switch ON (II): battery voltage With fully warmed up engine running: duty controlled
3	BLU	NEP (ENGINE SPEED PULSE)	Outputs engine speed pulse	With engine running: pulses
4	GRN/ORN	MIL (MALFUNCTION INDICATOR LAMP)	Drives MIL	With MIL turned ON: about 0 V With MIL turned OFF: battery voltage
6	YEL/BLU	VCC3 (SENSOR VOLTAGE)	Power source to FTP sensor	With ignition switch ON (II): about 5 V With ignition switch OFF (II): about 0 V
7	BLK/RED	SG3 (SENSOR GROUND)	Ground for FTP sensor	Less than 1.0 V at all times
8	BLU/ORN	STSW (STARTER SWITCH SIGNAL)	Detects starter switch signal	With starter switch START (III): battery voltage With starter switch OFF: about 0 V
9	WHT/BLK	BKSW (BRAKE PEDAL POSITION SWITCH)	Detects brake pedal position switch signal	With brake pedal released: about 0 V
11	RED/YEL	PCS (EVAPORATIVE EMISSION (EVAP) CANISTER PURGE VALVE)	Drives EVAP canister purge valve	With engine running, engine coolant below 147°F (64°C): battery voltage With engine running, engine coolant above 147°F (64°C): duty controlled
12	RED	ACC (A/C CLUTCH RELAY)	Drives A/C clutch relay	With compressor ON: about 0 V With compressor OFF: battery voltage
13	BLU/RED	FANC (RADIATOR FAN CONTROL)	Driver radiator fan relay	With radiator fan running: about 0 V With radiator fan stopped: battery voltage
14	YEL/GRN	ECTOUT (ECT SIGNAL OUTPUT)	Sends engine coolant temperature signal	With ignition switch ON (II): pulses
15	WHT	ILU (INTERLOCK CONTROL UNIT)	Drives interlock control unit	With ignition switch ON (II) and brake pedal depressed: battery voltage (about 0 V)
16	BRN	SCS (SERVICE CHECK SIGNAL)	Detects service check connector signal (the signal causing a DTC indication)	With the terminal connected: about 0 V With the terminal disconnected: about 5 V
17	BLU/WHT	CLSW (CLUTCH SWITCH SIGNAL)	Detects clutch switch signal	With clutch pedal released: about 0 V
18	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: above 0.6 V With throttle quickly closed: below 0.4 V
19	GRN/RED	ELD (ELECTRICAL LOAD DETECTOR (ELD))	Detects ELD signal	With parking lights turned on at idle: about 2.5 – 3.5 V With low beam headlights turned on at idle: about 1.5 – 2.5 V

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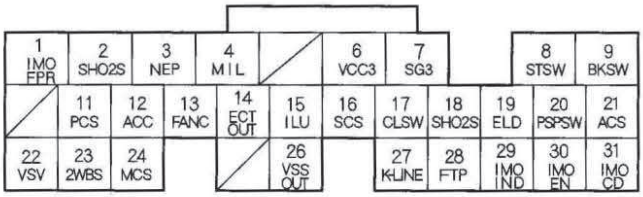
System Descriptions (cont'd)

ECM Inputs and Outputs at Connector E (31P) — M/T



Wire side of female terminals

NOTE: Standard battery voltage is 12 V.

Terminal number	Wire color	Terminal name	Description	Signal
20	GRN	PSPSW (POWER STEERING PRESSURE SWITCH SIGNAL)	Detects PSP switch signal	At idle with steering wheel in straight ahead position: about 0 V At idle with steering wheel at full lock: battery voltage
21	BLU/RED	ACS (A/C SWITCH SIGNAL)	Detects A/C switch signal	With A/C switch ON: about 0 V With A/C switch OFF: battery voltage
22	LT GRN/ WHT	VSV (EVAPORATIVE EMISSION (EVAP) CANISTER VENT SHUT VALVE	Drives EVAP canister vent shut valve	With ignition switch ON (II): battery voltage
23	BLU	2WBS (EVAPORATIVE EMISSION (EVAP) BYPASS SOLENOID VALVE)	Drives EVAP bypass solenoid valve	With ignition switch ON (II): battery voltage
24	GRN/WHT	MCS (ENGINE MOUNT CONTROL SOLENOID VALVE)	Drives engine mount control solenoid valve	At idle: and except por N position: about 0 V Above idle: battery voltage
26	BLU/WHT	VSSOUT (VEHICLE SPEED SENSOR OUTPUT SIGNAL)	Sends vehicle speed sensor signal	Depending on vehicle speed: pulses
27	GRY	K-LINE	Sends and receives scan tool signal	With ignition switch ON (II): pulses or battery voltage
28	LT GRN	FTP (FUEL TANK PRESSURE (FTP) SENSOR)	Detects FTP sensor signal	With ignition switch ON (II) and fuel fill cap: opened: about 2.5 V
29	PNK/WHT	IMOIND (IMMOBILIZER INDICATOR LIGHT)	Drives immobilizer indicator light	With immobilizer indicator light turned ON: about 0 V With immobilizer indicator light turned OFF: battery voltage
30	BLU/WHT	IMOEN (IMMOBILIZER ENABLE SIGNAL)	Sends immobilizer enable signal	
31	RED	IMOCD (IMMOBILIZER CODE)	Detects immobilizer signal	

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