

# J - PIN VOLTAGE CHARTS

1993 Nissan Sentra

1993 ENGINE PERFORMANCE  
Nissan Pin Voltage Charts

Altima, Maxima, NX, Pathfinder  
Pickup, Quest, Sentra, 240SX, 300ZX

## INTRODUCTION

Pin voltage charts are supplied to reduce diagnostic time. Checking pin voltages at the PCM connector determines whether it is receiving and transmitting proper voltage signals. Diagnostic charts may also help determine if PCM harness is shorted or open.

**NOTE:** Unless stated otherwise in testing procedures, perform all voltage tests using a Digital Volt-Ohmmeter (DVOM) with a minimum 10-megohm input impedance. Voltage readings may vary slightly due to battery condition or charging rate.

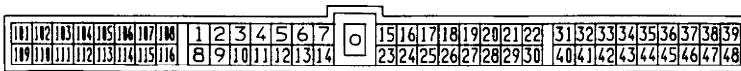
## TEST PROCEDURE

**CAUTION:** Short circuiting positive DVOM lead between a connector terminal and ground could damage vehicle wiring, sensor and/or PCM.

1) If necessary, remove control module to access harness connector. Using DVOM, backprobe terminals with positive lead. Connect negative lead to ground terminal or chassis ground.

2) Voltage measurements are taken with engine warm unless otherwise specified. If DVOM displays measurement that is not within specification, see appropriate articles below:

G - TESTS W/CODES  
I - SYSTEM/COMPONENT TESTS



ALTIMA, NX, PATHFINDER, PICKUP, QUEST, SENTRA, & 240SX



93D79239

MAXIMA & 300ZX

HARNESS SIDE OF CONNECTORS

Fig. 1: Identifying ECM Connector Terminals  
Courtesy of Nissan Motor Co., U.S.A.

## MAXIMA (VE30DE)

### PIN VOLTAGE CHART - MAXIMA (VE30DE)

Terminal Wire Color	Function/Description	Voltage Value (DC Volts)
1 Yellow/Red	Ignition Signal	KOER - 0.1V
2 Green/Red	Ignition Signal	KOER - 0.1V
3	Ignition Signal	KOER - 0.1V

Blue/Red		
4 Yellow/Black	IACV-AAC Valve	KOER 4000 RPM 11-14V
6 Lt Grn/Black	Radiator Fan (High)	KOER, Fan Operating 0.7-0.8V KOER, Fan OFF 11-14V
7 Blue	Tachometer	KOER, Idle - 11-14V KOER, 2000 RPM Approximately 2.5V
8 Yellow/Black	Power Valve Control Solenoid	KOER, Idle - 11-14V KOER, 4000 RPM Approximately 0V
9 Black/Red	A/C Relay	A/C & Blower Switch On - 0.7V A/C & Blower Switch Off - 11-14V
11 Lt Green	Ignition Signal	KOER - 0.1V
12 Purple	Ignition Signal	KOER - 0.1V
13 Gray/Red	Ignition Signal	KOER - 0.1V
16 Green/Orange	ECM Power (Self Shutoff)	KOER, Idle - 0.8-1.0V Turn Ignition Off 11-14V 1st 2 Sec.
18 Brown/Yellow	Fuel Pump Relay	Turn Ignition On, 0.7-0.9 1st 5 Sec. Turn Ignition On, 11-14V After 1st 5 Sec.
19 Lt Grn/Red	Radiator Fan (Low)	KOER, Fan Operating 0.7-0.8V KOER, Fan OFF 11-14V
23 White	Knock Sensor	KOER, Idle - 2.3V
27 White	Mass Airflow Sensor	KOER, Idle - 0.8-1.5V KOER, 3000 RPM 1.4-2.0V
28 Yellow	Coolant Temperature Sensor	KOER - 0-5V, Varies w/ Temp
29 White	Heated Oxygen Sensor	KOER, Warm Engine 0.1-1.0V
34 Yellow	Power Steering Pressure	KOER, Wheels Straight 4-5V KOER, Wheels Turned

		0-.2V
38 White	Throttle Position Sensor	KOEO - 0.4-4.0, Varies With Throttle Opening
39 White	EGR Temperature Sensor	KOER, EGR Not Operating 1V or More KOER, EGR Operating 0-1V
41 Green/Black	Crankshaft Position Sensor (Reference Signal)	KOER - 1.0-1.5V
42 Green/Yellow	Crankshaft Position Sensor (Position Signal)	KOER - 2.3-2.6V
43 Green/White	Start Signal	KOEC - 11-14V
44 Green/White	Neutral/Inhibit Switch	KOEO, Park/Neutral 0V KOEO, Except Park/Neutral - 4-5V
45 White/Green	Ignition Switch Signal	KOEO - 11-14V
48 Orange/Blue	Power Source For Sensors	KOEO - Approx. 5V
49 White/Black	Battery Source	KOEO - 11-14V
51 Green/Black	Crankshaft Position Sensor (Reference Signal)	KOER - 1.0-1.5V
52 Green/Yellow	Crankshaft Position Sensor (Position Signal)	KOER - 2.3-2.6V
53 Pink/Blue	Vehicle Speed Sensor	KOEO, Rotate Wheel Fluctuating 0-9V
54 Gray/Blue	Closed Throttle Position Switch	KOEO, Throttle Closed - 8-10V KOEO, Throttle Open 0V
57 Green/Orange	Power Source For CTP Switch	KOEO - 8-9V
59 Red/Green	Power Supply	KOEO - 11-14V
101 Yellow/Black	Injector No. 1	Ignition Off - 11-14V
102 Yellow/Black	EGRC Solenoid	KOER Approx. 900-3000 RPM 0-0.7V KOER, Idle Or More Than 3000 RPM 11-14V

103 Red/Yellow	Injector No. 3	Ignition Switch Off 11-14V
105 White/Red	Injector No. 5	Ignition Switch Off 11-14V
110 Red/White	Injector No. 2	Ignition Switch Off 11-14V
112 Red/Blue	Injector No. 4	Ignition Switch Off 11-14V
113 Yellow/Green	Valve Timing Control Solenoid	KOER, Idle - 11-14V KOER, Snap Throttle 0.2-0.5V
114 Blue/Red	Injector No. 6	Ignition Switch Off 11-14V
KOEC - Key On, Engine Cranking                      KOEO - Key On, Engine Off KOER - Key On, Engine Running		

### MAXIMA (VG30E)

#### PIN VOLTAGE CHART - MAXIMA (VG30E)

Terminal Wire Color	Function/Description	Voltage Value (DC Volts)
1 Lt Grn/Red	Ignition Signal	KOER, Idle - 0.4-0.6V KOER, 4000 RPM Approximately 2.0V
2 Black/Yellow	Ignition Check	KOER, Idle - 11-14V
4 Yellow/Black	IACV-AAC Valve	KOER 4000 RPM 11-14V
5 Yellow/Red	IACV-AAC Valve	KOER 4000 RPM 11-14V
6 Lt Grn/Red	Radiator Fan (High)	KOER, Fan Operating 0.7-0.8V KOER, Fan OFF 11-14V
8 Orange	Power Valve Control Solenoid	KOER, Idle - 11-14V KOER, 4000 RPM 0.7-0.8V
9 Green	A/C Relay	A/C & Blower Switch On - 0.7V A/C & Blower Switch Off - 11-14V
16 Green/Orange	ECM Power (Self Shutoff)	KOER, Idle - 0.8-1.0V Turn Ignition Off 11-14V 1st 2 Sec.
18	Fuel Pump Relay	KOER, Normal - 11-14V

Black		KOER, Fuel Pump Control Inop. 0.7-.08V
19 Lt Grn/Black	Radiator Fan (Low)	KOER, Fan Operating 0.7-0.8V KOER, Fan OFF 11-14V
23 White	Knock Sensor	KOER, Idle - 3-4V
25 Green/Black	Electric Load Signal	KOER, Low Electric Load - 11-14V KOER, High Electric Load - 0.1-0.3V
27 White	Mass Airflow Sensor	KOER, Idle - 1.0-1.3V KOER, 3000 RPM 1.8-2.0V
28 Green	Coolant Temperature Sensor	KOER - 0-5V, Varies w/ Temp
29 White	Heated Oxygen Sensor	KOER, Warm Engine 0.1-1.0V
34 Yellow	Power Steering Pressure	KOER, Wheels Straight 8V KOER, Wheels Turned 0-.2V
38 White	Throttle Position Sensor	KOEO - 0.5-4.2
39 Blue/Red	EGR Temperature Sensor	KOER, EGR Not Operating 1V or More KOER, EGR Operating 0-1V
41 Green/Black	Crankshaft Position Sensor (Reference Signal)	KOER - 0.2-0.4V
42 Green/Yellow	Crankshaft Position Sensor (Position Signal)	KOER - 2.5-2.7V
43 Green/White	Start Signal	KOEC - 11-14V
44 Brown	Inhibit Switch	KOEO Park/Neutral Position - 11-14V KOEO, Except Park/Neutral - 0V
45 Green/Black	Ignition Switch Signal	KOEO - 11-14V
46 Green/Black	A/C Switch	A/C Switch Off - 8-9V A/C Switch On .5-.7V
48 Green/Black	Power Source For Sensors	KOEO - Approx. 5V



Terminal Wire Color	Function/Description	Voltage Value (DC Volts)
1 White	Ignition Signal	KOER, Idle - 0.2-0.3V KOER, 2000 RPM Approximately 0.8V
3 Yellow/Red	Ignition Check	KOER, Idle - 11-14V
4 White/Green	ECM Relay (Self Shutoff)	Turn Ignition Off, 0-1V For 1st 2 Sec. Turn Ignition Off, 11-14V After First 2 Sec.
8 Red/Blue	EGR Temperature Sensor	KOER, EGR Not Operating Less Than 5V KOER, EGR Operating 0-1V
11 Lt Green	A/C Relay	A/C & Blower Switch On - 0.7V
16 Orange	Mass Airflow Sensor	KOER, Idle - 0.8-0.3V
18 Gray/Red	Coolant Temperature Sensor	KOER - 0.1V Varies with Temp.
19 White	Heated Oxygen Sensor	KOER, Warm Engine 0.1-1.0V
20 White	Throttle Position Sensor	KOEO - 0.3-0.4V
22 Blue	Crankshaft Position Sensor	KOER - 0.1-1.3V
24 Orange	Malfunction Indicator Light	KOEO - 1.5V KOER - 11-14V
27 White	Knock Sensor	KOER, Idle - 2.5V
30 Blue	Crankshaft Position Sensor (Reference Signal)	KOER - 0.1-1.3V
31 Yellow	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
32 Yellow/Green	Vehicle Speed Sensor	KOEO Rotate Wheel - 0-10V
34 Green/Black	Start Signal	KOEC - 11-14V
35 Green/Orange	Park/Neutral Switch	KOEO, Park/Neutral Position - 0V KOEO Except Park/Neutral

		6V
36 Black/Red	Ignition Switch	KOEO - 11-14V
37 Red/Yellow	TPS Power Supply	KOEO - 5V
38 Orange	ECM Power Supply	KOEO - 11-14V
40 Yellow	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
41 White/Green	A/C Switch	A/C Switch On - 0V A/C Switch Off 11-14V
43 Green/Yellow	Power Steering Pressure	KOER, Wheels Straight - 8V KOER, Wheel Turned - 0V
46 White	Power Supply (Back-Up)	Ignition Switch Off 11-14V
47 Orange	ECM Power Supply	KOEO - 11-14V
101 Brown	Injector No. 1	KOER - 11-14V
103 Brown/Yellow	Injector No. 3	KOER - 11-14V
104 Black/Yellow	Fuel Pump Relay	Turn Ignition On, 0.8V For 1st 5 Sec. Turn Ignition On, 11-14V After First 5 Seconds
105 Lt Green	EGR & Canister Control Valve	KOER, Cold Engine 0.7V KOER, Warm Engine 2000 RPM - 11-14V
109 White	Power Supply (Back-Up)	Ignition Switch Off 11-14V
110 Brown/White	Injector No. 2	KOER - 11-14V
112 Brown	Injector No. 4	KOER - 11-14V
113 Lt Blue	IACV-AAC Valve	KOER, Normal Idle Speed - 9-14V KOER, Increased Idle Speed - 5-9V
KOEC - Key On, Engine Cranking      KOEO - Key On, Engine Off KOER - Key On, Engine Running		



## NX & SENTRA 1.6L

PIN VOLTAGE CHART - NX & SENTRA 1.6L

Terminal Wire Color	Function/Description	Voltage Value (DC Volts)
1 White	Ignition Signal	KOER, Idle - 0.3-0.5V KOER, 2000 RPM Approximately 0.9V
3 Blue/White	Ignition Check	KOER, Idle - 11-14V
4 White/Green	ECM Relay (Self Shutoff)	Turn Ignition Off, 0-1V For 1st 2 Sec. Turn Ignition Off, 11-14V After First 2 Sec.
8 Black/Red	EGR Temperature Sensor	KOER, EGR Not Operating - 2-4V KOER, EGR Operating 0-1V
11 Yellow/Blue	A/C Relay	A/C & Blower Switch On - 0.7V A/C & Blower Switch Off - 11-14V
12 Green/White	VTC Solenoid Valve	KOER, Idle - 11-14V KOE0, Snap Throttle Approximately 0V
16 Orange	Mass Airflow Sensor	KOER - 0.8-3.0V
18 Blue/Orange	Coolant Temperature Sensor	KOER - 0-5V Varies with Temp.
19 White	Heated Oxygen Sensor	KOER, Warm Engine 0.1-1.0V
20 White	Throttle Position Sensor	KOE0, Pedal Released 0.45-0.55V KOE0, Pedal Fully Depressed - 4-5V
22 Blue	Crankshaft Position Sensor	KOER - 0.1-1.3V
30 Blue	Crankshaft Position Sensor (Reference Signal)	KOER - 0.1-1.3V
31 Yellow	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
34 Purple	Start Signal	KOEC - 11-14V
35 Green/Orange	Neutral Switch	KOE0, Neutral Position - 0V KOE0



## NX & SENTRA 2.0L

### PIN VOLTAGE CHART - NX & SENTRA 2.0L

Terminal Wire Color	Function/Description	Voltage Value (DC Volts)
1 White	Ignition Signal	KOER, Idle - 0.2-0.3V KOER, 2000 RPM Approximately 0.7V
3 Yellow/Red	Ignition Check	KOER, Idle - 11-14V
4 White/Green	ECCS Relay (Self Shutoff)	Turn Ignition Off, 0-1V For 1st 2 Sec. Turn Ignition Off, 11-14V After First 2 Sec.
8 Blue/Yellow	EGR Temperature Sensor	KOER, EGR Not Operating Less Than 5V KOER, EGR Operating 0-1V
11 Yellow/Blue	A/C Relay	A/C & Blower Switch On - 0.7V
16 Orange	Mass Airflow Sensor	KOER, Idle - 1.3-1.7V KOER, 2000 RPM 1.7-2.1V
18 Blue/Orange	Coolant Temperature Sensor	KOER - 0-5V Varies with Temp.
19 White	Heated Oxygen Sensor	KOER, Warm Engine 0.1-1.0V
20 White	Throttle Position Sensor	KOEO - 0.5-4.0V Varies w/ Temp.
22 Blue	Crankshaft Position Sensor (Reference Signal)	KOER - 0.2-0.5V
27 White	Knock Sensor	KOER, Idle - 2-3V
30 Blue	Crankshaft Position Sensor (Reference Signal)	KOER - 0.2-0.5V
31 Yellow	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
32 Yellow/Green	Vehicle Speed Sensor	KOEO, Rotate Wheel 0-10V
34 Purple	Start Signal	KOEC - 11-14V
35 Green/Orange	Neutral Switch	KOEO, Neutral Position - 0V KOEO

		Except Neutral 11-14V
36 Black/Red	Ignition Switch	KOEO - 11-14V
37 Red/Yellow	TPS Power Supply	KOEO - 5V
38 Orange/Blue	ECM Power Supply	KOEO - 11-14V
40 Yellow	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
41 Yellow/Red	A/C Switch	A/C Switch On - 0V A/C Switch Off 11-14V
43 Lt Grn/Black	Power Steering Pressure	KOER, Wheels Straight - 8V KOER, Wheel Turned - 0V
46 White	Power Supply (Back-Up)	Ignition Switch Off 11-14V
47 Orange/Blue	ECM Power Supply	KOEO - 11-14V
101 White/Black	Injector No. 1	KOER - 11-14V
103 Green/Black	Injector No. 3	KOER - 11-14V
104 Black/Yellow	Fuel Pump Relay	Turn Ignition On, 0.8V For 1st 5 Sec. Turn Ignition On, 11-14V After First 5 Seconds
105 Grey	EGR & Canister Control Valve	KOER, Warm Engine 4000 RPM - 0.7V KOER, Warm Engine 2000 RPM - 11-14V
110 Yellow/Black	Injector No. 2	KOER - 11-14V
111 Grey	Oxygen Sensor Heater	KOER, Warm Engine Less Than 3200 RPM 0V KOER, Warm Engine More Than 3200 RPM 11-14V
112 Blue/Black	Injector No. 4	KOER - 11-14V
113 Lt Blue	IACV-AAC Valve	KOER, Normal Idle Speed - 11-14V KOER, Increased Idle

	Speed - 5-11V
KOEC - Key On, Engine Cranking                      KOEO - Key On, Engine Off KOER - Key On, Engine Running	

## PICKUP 2.4L

### PIN VOLTAGE CHART - PICKUP 2.4L

Terminal Wire Color	Function/Description	Voltage Value (DC Volts)
1 White	Ignition Signal	KOER, Idle - 0.3-0.6V KOER, 2000 RPM 1.2-1.5V
2 White	Tachometer	KOER, Idle - 1.0V KOER, 2000 RPM 2.7V
3 White/Green	Ignition Check	KOER, Idle - 9-12V
4 Blue/Red	ECCS Relay (Self Shutoff)	Turn Ignition Off, 0-1V For 1st 2 Sec. Turn Ignition Off, 11-14V After First 2 Sec.
8 Green/Orange	EGR Temperature Sensor	KOER, EGR Not Operating 3-4V KOER, EGR Operating 0-3V
12 Grey	Swirl Control Solenoid Valve	KOER, Idle - 0-1V KOER, 2000 RPM 11-14V
16 Black	Mass Airflow Sensor	KOER, Idle - 1.0-3.0V
18 Lt Grn/Red	Coolant Temperature Sensor	KOER - 1-3V Varies with Temp.
19 White	Oxygen Sensor	KOER, Warm Engine 0.1-1.0V
20 White	Throttle Position Sensor	KOEO - 0.5-4.0V
22 Green/Yellow	Crankshaft Position Sensor (Reference Signal)	KOER - 0.3-0.4V
26 Yellow/Blue	Air Temperature Sensor	KOEO, Air Temp 68°F (20°C) - 2.4V
30 Green/Yellow	Crankshaft Position Sensor (Reference Signal)	KOER - 0.3-0.4V
31 Green/Black	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V

34 Black/Yellow	Start Signal	KOEC - Approx. 12V
35 Blue/Black	Neutral Switch	KOEO, Park/Neutral Position - 0V KOEO, Except Park/ Neutral - 6-7V
36 Black/White	Ignition Switch	KOEO - 11-14V
37 Pink	TPS Power Supply	KOEO - 5V
38 Black/White	ECM Power Supply	KOEO - 11-14V
40 Green/Black	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
41 Green/Red	A/C Switch	A/C Switch On - 0V A/C Switch Off 11-14V
43 Green	Power Steering Pressure	KOER, Wheels Straight - 5V KOER, Wheel Turned - 0V
46 White	Power Supply (Back-Up)	Ignition Switch Off 11-14V
47 Black/White	ECM Power Supply	KOEO - 11-14V
101 White/Black	Injector No. 1	KOER - 11-14V
103 White/Red	Injector No. 3	KOER - 11-14V
104 White/Red	Fuel Pump Relay	Turn Ignition On, 0.8V For 1st 5 Sec. Turn Ignition On, 11-14V After First 5 Seconds
105 White/Blue	EGRC Solenoid Valve	KOER, Cold Engine 0.7V KOER, Warm Engine 2000 RPM - 11-14V
110 White/Blue	Injector No. 2	KOER - 11-14V
112 White/Green	Injector No. 4	KOER - 11-14V
113 Lt Blue	IACV-AAC Valve	KOER, Normal Idle Speed - 11-14V KOER, Increased Idle
115	TCC Solenoid Valve	KOER, Engine Cold

Blue/Yellow	0V KOER, Engine Warm 11-14V
KOEC - Key On, Engine Cranking      KOEO - Key On, Engine Off KOER - Key On, Engine Running	

### PATHFINDER & PICKUP 3.0L

#### PIN VOLTAGE CHART - PATHFINDER & PICKUP 3.0L

Terminal Wire Color	Function/Description	Voltage Value (DC Volts)
1 White	Ignition Signal	KOER, Idle - 0.5-0.6V KOER, 2000 RPM 1.2-1.3V
2 White	Tachometer	KOER, Idle - 1.0V KOER, 2000 RPM 2.7V
3 White/Green	Ignition Check	KOER, Idle - 9-12V
4 Blue/Red	ECCS Relay (Self Shutoff)	Turn Ignition Off, 0-1V For 1st 2 Sec. Turn Ignition Off, 11-14V After First 2 Sec.
8 Green/Orange	EGR Temperature Sensor	KOER, EGR Not Operating 3-4V KOER, EGR Operating 0-3V
12 Grey	Swirl Control Solenoid Valve	KOER, Idle - 0-1V KOER, 2000 RPM 11-14V
16 Black	Mass Airflow Sensor	KOER, Idle - 1.0-3.0V
18 Lt Grn/Red	Coolant Temperature Sensor	KOER - 1-3V Varies with Temp.
19 White	Oxygen Sensor	KOER, Warm Engine 0.1-1.0V
20 White	Throttle Position Sensor	KOEO - 0.5-4.0V
22 Green/Yellow	Crankshaft Position Sensor (Reference Signal)	KOER - 0.3-0.4V
26 Yellow/Blue	Air Temperature Sensor	KOEO, Air Temp 68°F (20°C) - 2.4V
30 Green/Yellow	Crankshaft Position Sensor (Reference Signal)	KOER - 0.3-0.4V
31	Crankshaft Position Sensor	KOER - 2.0-3.0V

Green/Black	(Position Signal)	
34 Black/Yellow	Start Signal	KOEC - Approx. 12V
35 Blue/Black	Neutral Switch	KOEO, Park/Neutral Position - 0V KOEO, Except Park/ Neutral - 6-7V
36 Black/White	Ignition Switch	KOEO - 11-14V
37 Pink	TPS Power Supply	KOEO - 5V
38 Black/White	ECM Power Supply	KOEO - 11-14V
40 Green/Black	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
41 Green/Red	A/C Switch	A/C Switch On - 0V A/C Switch Off 11-14V
43 Green	Power Steering Pressure	KOER, Wheels Straight - 5V KOER, Wheel Turned - 0V
46 White	Power Supply (Back-Up)	Ignition Switch Off 11-14V
47 Black/White	ECM Power Supply	KOEO - 11-14V
101 White/Black	Injector No. 1	KOER - 11-14V
103 White/Red	Injector No. 3	KOER - 11-14V
104 Red/Blue	Fuel Pump Relay	Turn Ignition On, 0.8V For 1st 5 Sec. Turn Ignition On, 11-14V After First 5 Seconds
105 White/Green	Injector No. 5	KOER - 11-14V
110 Yellow	Injector No. 2	KOER - 11-14V
112 White/Blue	Injector No. 4	KOER - 11-14V
113 Orange	IACV-AAC Valve	KOER, Normal Idle Speed - 7-10V KOER, Increased Idle Demand 4-7V



114 Blue/Yellow	Injector No. 6	KOER - 11-14V
KOEC - Key On, Engine Cranking      KOEO - Key On, Engine Off KOER - Key On, Engine Running		

## QUEST

### PIN VOLTAGE CHART - QUEST

Terminal Wire Color	Function/Description	Voltage Value (DC Volts)
1 Blue	Ignition Signal	KOER, Idle - 0.4-0.6V KOER, 2000 RPM 1.2-1.3V
2 Green/White	Tachometer	KOER, Idle - 1.0V KOER, 2000 RPM 3.2-3.6V
3 Red	Ignition Check	KOER, Idle - 9-12V
4 White/Green	ECM Relay (Self Shutoff)	KOER, Idle - 0-1V Turn Ignition Off 11-14 For 1st 2 Sec
8 White/Purple	EGR Temperature Sensor	KOER, EGR Not Operating More Than 1V KOER, EGR Operating 0-1V
11 Grey/Red	A/C Relay	A/C & Blower Switch On - 0.7V A/C & Blower Switch Off - 11-14V
12 Pink	Power Steering Pressure Switch	KOER, Wheels Straight Approx. 5V KOER, Wheels Turned, Approx. 0V
16 White/Blue	Mass Airflow Sensor	KOER - 1-3V Varies w/ Engine Speed
18 Lt Grn/Red	Coolant Temperature Sensor	KOER - 0-5V Varies with Temp.
19 Lt Grn/Black	Heated Oxygen Sensor	KOER, Warm Engine 0.1-1.0V
20 Red	Throttle Position Sensor	KOEO - 0.4-4.0V Varies w/ Throttle Opening
22 Red/White	Crankshaft Position Sensor (Reference Signal)	KOER - 0.2-0.5V
27	Knock Sensor	KOER, Idle - 2.5V

White		
28 Red/Green	Throttle Opening Signal	KOER - 0.3-3.0V Varies With Throttle Opening
30 Red/White	Crankshaft Position Sensor (Reference Signal)	KOER - 0.2-0.5V
31 Red/Blue	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
32 Green/Yellow	Vehicle Speed Sensor	KOEO, Rotate Wheel Fluctuating 0-5V
33 Brown/Yellow	Closed Throttle Position Switch	KOEO, Throttle Closed - 8-10V
34 Blue/Black	Start Signal	KOEC - Approx. 12V
35 Green/Black	TCM (Park/Neutral Signal)	KOEO, Park/Neutral Position - 0V KOEO, Except Park/ Neutral - 4-6V
36 Blue/Yellow	Ignition Switch	KOEO - 11-14V
37 Brown	Power Supply For Sensors	KOEO - 5V
38 Red/Black	TCM Power Supply	KOEO - 11-14V
40 Red/Blue	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
41 White/Red	A/C Switch	A/C Switch On 2.0-2.5V A/C Switch Off 11-14V
44 Red/Yellow	CTP Switch Power Supply	KOEO, Throttle Closed - 8-9V KOEO, Throttle Open 11-14V
46 Yellow	Power Supply (Back-Up)	Ignition Switch Off 11-14V
47 Red/Black	TCM Power Supply	KOEO - 11-14V
101 Green/Orange	Injector No. 1	KOER - 11-14V
102 Grey	EGRC Solenoid Valve	KOER, Warm Engine, Idle - 0.7-0.9V KOER, Warm Engine, 2000 RPM - 11-14V
103	Injector No. 3	KOER - 11-14V

Green/Red		
104 Blue/Red	Fuel Pump Relay	Turn Ignition On, 0.8V For 1st 5 Sec. Turn Ignition On, 11-14V After First 5 Seconds
105 Yellow/Green	Injector No. 5	KOER - 11-14V
110 Green	Injector No. 2	KOER - 11-14V
112 Yellow/Purple	Injector No. 4	KOER - 11-14V
113 Orange	IACV-AAC Valve	KOER, Normal Idle Speed - 8-11V KOER, Increased Idle Demand - 4-7V
114 Grey/Blue	Injector No. 6	KOER - 11-14V
KOEC - Key On, Engine Cranking                      KOEO - Key On, Engine Off KOER - Key On, Engine Running		

## 240SX

### PIN VOLTAGE CHART - 240SX

Terminal Wire Color	Function/Description	Voltage Value (DC Volts)
1 White	Ignition Signal	KOER, Idle - 0.2-0.3V KOER, 2000 RPM 0.8V
3 Yellow/Red	Ignition Check	KOER, Idle - 11-14V
4 Red/Black	ECCS Relay (Self Shutoff)	Turn Ignition Off 0-1V For 1st 2 Sec Turn Ignition Off 11-14 After 1st 2 Sec
8 Red/Blue	EGR Temperature Sensor	KOER, EGR Not Operating 3-4V KOER, EGR Operating 0-1V
11 Green/Yellow	A/C Relay	A/C & Blower Switch On - 0.7V A/C & Blower Switch Off - 11-14V
16 White	Mass Airflow Sensor	KOER, Idle - 0.8-3.0V Varies w/ Engine Speed

18 Blue/Orange	Coolant Temperature Sensor	KOER - 1-3V Varies with Temp.
19 White	Oxygen Sensor	KOER, Warm Engine 0.1-1.0V
20 White	Throttle Position Sensor	KOEO - 0.3-5.0V
22 White	Crankshaft Position Sensor (Reference Signal)	KOER - 0.1-1.3V
25 Green/Yellow	Swirl Control Solenoid Valve	KOER, Idle 0-1V KOER, 2000 RPM 11-14V
27 White	Knock Sensor	KOER, Idle - 2.5V
30 White	Crankshaft Position Sensor (Reference Signal)	KOER - 0.1-1.3V
31 Black	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
34 Orange	Start Signal	KOEC - Approx. 12V
35 Green/Orange	Neutral Switch	KOEO, Neutral Position - 0V KOEO, Except Neutral - 6-7V
36 Black/Red	Ignition Switch	KOEO - 11-14V
37 Lt Grn/Red	TPS Power Supply	KOEO - 5V
38 Black/White	ECM Power Supply	KOEO - 11-14V
40 Black	Crankshaft Position Sensor (Position Signal)	KOER - 2.0-3.0V
41 Blue/Green	A/C Switch	A/C Switch On 0V A/C Switch Off 11-14V
43 Brown	Power Steering Pressure Switch	KOER, Wheels Straight Approx 8V KOER, Wheels Turned Approx 0V
46 Red	Power Supply (Back-Up)	Ignition Switch Off 11-14V
47 Black/White	ECM Power Supply	KOEO - 11-14V
101 White/Black	Injector No. 1	KOER - 11-14V



		Off - 11-14V
11 Blue/White	Ignition Signal	KOER - 0.1V
12 Blue/Black	Ignition Signal	KOER - 0.1V
13 Orange	Ignition Signal	KOER - 0.1V
16 Orange	ECM Power (Self Shutoff)	KOER, Idle - 0.8-1.0V Turn Ignition Off 11-14V 1st 2 Sec.
18 Black/Pink	Fuel Pump Relay	Turn Ignition On 0.8V For 1st 5 Sec. Turn Ignition Off 11-14V After 1st 5 Sec.
19 Blue	Radiator Fan	KOER, Fan Operating 0.1-0.3V KOER, Fan Off 11-14V
23 White	Knock Sensor	KOER, Idle - 2-3V
27 White	Mass Airflow Sensor	KOER, Idle 0.8-1.5V KOER, 2000 RPM 1.0-1.6V
28 Yellow/Green	Coolant Temperature Sensor	KOER, Idle 0.8-1.5V Varies w/ Temp
29 White	Heated Oxygen Sensor (Right)	KOER, Warm Engine 0.1-1.0V
33 Red	IACV-FICD Solenoid Valve (Reference Signal)	KOER, A/C Not Operating - 11-14V KOER, A/C Operating 0.7-0.8V
34 Green	Power Steering Pressure Switch (Position Signal)	KOER, Wheels Striaight 8-9V Wheels Turned, Approx 0V
35 Purple	Fuel Pump Control (Turbo)	KOEO - 11-14V KOER, Idle Warm Engine Approximately 0V
36 Brown	Fuel Temperature Sensor	KOEO 0-5V Varies With Fuel Temperature
38 Black/White	Throttle Position Sensor	KOEO - 0-5V Varies With Throttle Opening
39 Orange/Black	EGR Temperature Sensor	KOER, EGR Not Operating - 1.5-4.5V

		KOER, EGR Operating 0-1V
41 Green/Black	Crankshaft Position Sensor (Reference Signal)	KOER - 1.2-1.4V
42 Green/Yellow	Crankshaft Position Sensor (Position Signal)	KOER - 2.5-2.7V
43 Black/Yellow	Start Signal	KOEC - 11-14V
44 Brown	A/T Control Unit/Neutral Switch (M/T)	KOEO, Park/Neutral Position - 0V KOEO, Except Park/ed Neutral - 8-9V
45 Black/Red	Ignition Switch Signal	KOEC - 11-14V
46 Lt Blue	A/C Switch	A/C Switch Off 11-14V A/C Switch On 0.5-0.7V
48 Orange/Blue	Power Source For Sensors	KOEO - Approx 5V
49 White	Battery Source	KOEO - 11-14V
51 Green/Black	Crankshaft Position Sensor (Reference Signal)	KOEO - 1.2-1.4V
52 Green/Yellow	Crankshaft Position Sensor (Position Signal)	KOEO - 2.5-2.7V
53 Yellow/Green	Vehicle Speed Sensor	KOEO, Rotate Wheel Fluctuating 0-9V
54 Lt Grn/Red	Closed Throttle Position Switch	KOEO, Throttle Closed - 9-10V KOEO, Throttle Open 0V
55 White	Heated Oxygen Sensor (Left)	KOER, Warm Engine 0.1-1.0V
57 Green/Red	Power Source For CTP Switch	KOER - 11-14V
59 White	Power Supply	KOEO - 11-14V
101 White	Injector No. 1	Ignition Switch Off 11-14V
102 Brown	EGRC Solenoid	KOER, Warm Engine, 2000 RPM - 0-0.7V KOER, Warm Engine, Idle - 11-14V
103	Injector No. 3	Ignition Switch Off

