

# J - PIN VOLTAGE CHARTS

1992 Infiniti G20

1991-92 ENGINE PERFORMANCE  
Infiniti Pin Voltage Charts

G20

## INTRODUCTION

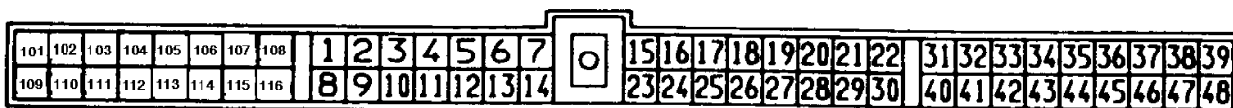
Pin voltage charts are supplied to reduce diagnostic time. Checking pin voltages at the ECU determines whether it's receiving and transmitting proper voltage signals. Charts may also help determine if ECU harness is shorted or opened. See Fig. 1 for ECU harness terminal pin identification.

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

## ECU LOCATION & CONNECTOR TERMINAL ID

The ECU is located behind the right side kick panel.

### ECU HARNESS CONNECTOR TERMINAL LAYOUT



200497



Fig. 1: ECU Harness Terminal Pin ID  
Courtesy of Nissan Motor Co., U.S.A.

## PIN VOLTAGE CHART

ECU HARNESS TERMINAL PIN VOLTAGE TABLE

Terminal Number	Item & Condition	Voltage
1	Ignition Signal-Engine at Idle	0.3-0.5V
	Ignition Signal-Engine at 2000 RPM	Approx. 0.7V
3	Ignition Check-Engine at Idle	Approx. 12V
4	ECCS Relay (Self-Shutoff)-Eng. Running (1)	0-1V
	ECCS Relay (Self-Shutoff)-Ign. OFF (2)	0-1V
8	Exhaust Gas Temp. Sensor-Eng. @ Idle/Warm	Less than 4.5V
	Exhaust Gas Temp. Sensor-Eng. @ Idle/Warm	

	EGR System is operating	0-1.0V
9	Radiator Fan Relay (Low)-Engine Running (3)	11-14V
	Radiator Fan Relay (Low)-Engine Running (4)	0.6-0.8V
10	Radiator Fan Relay (High)-Engine Running(3)	11-14V
	Radiator Fan Relay (High)-Engine Running(4)	0.6-0.8V
11	A/C Relay-Eng. Running (A/C & Blower ON)	0.6-0.8V
	A/C Relay-Eng. Running (A/C OFF)	Battery Voltage
16	Air Flow Meter-Eng. @ Idle/Warm	1.3-1.7V
	Air Flow Meter-Eng. at 2000 RPM	1.7-2.1V
18	Engine Temp. Sensor-Engine Running	(5) 0-5V
19	Exhaust Gas Sensor-Eng. at 2000 RPM/Warm	0-1V
20	Throttle Sensor-Ign. ON/Accelerator Pedal Released	0.45-0.55V
	Throttle Sensor-Ign. OFF/Accelerator Pedal Fully Depressed	Approx. 4V
22	Crank Angle Sensor (Ref. Signal) (6)	0.2-0.5V
27	Detonation Sensor-Engine at Idle	2.0-3.0V
30	Crank Angle Sensor (Ref. Signal) (6)	0.2-0.5V
31	Crank Angle Sensor (Pos. Signal) (6)	2.0-3.0V
34	Start Signal-Ign. Switch ON Start Signal-Ign. Switch in START	Approx. 0V Battery Voltage
35	Neutral Switch (M/T)-Ign. ON, in Neutral	0V
	Neutral Switch (M/T)-Ign. ON, in Gear	Battery Voltage
35	Inhibitor Switch (A/T)-Ign. ON, in N or P	0V
	Inhibitor Switch (A/T)-Ign. ON, in Gear	Battery Voltage
36	Ignition Switch-Ign. OFF	0V
	Ignition Switch-Ign. ON	Battery Voltage
37	Throttle Sensor Power Supply-Ign. ON	Approx. 5V
38	ECU Power Supply-Ign. ON	Battery Voltage
40	Crank Angle Sensor (Pos. Signal) (6)	2.0-3.0V
41	A/C Switch-Ign. ON (A/C & Blower ON)	Approx. 0V
	A/C Switch-A/C is OFF	Battery Voltage
43	Power Steering Oil Pressure Switch-Eng. Running-Steering Wheel is Being Turned	Approx. 0V

	Power Steering Oil Pressure Switch-Eng. Running-Steering Wheel is Not Being Turned	7-10V
46	Power Supply (Back-up)-Ign. OFF	Battery Voltage
47	ECU Power Supply-Ign. ON	Battery Voltage
101	Injector No. 1-Engine is Running	Battery Voltage
102	A.I.V. Control Solenoid Valve Eng. @ Idle/Warm	0.6-0.8V
	A.I.V. Control Solenoid Valve-Eng. Running (Warm) With Accelerator Pedal Depressed	Battery Voltage
103	Injector No. 2-Engine is Running	Battery Voltage
104	Fuel Pump Relay-Eng. Running, Reading for 5 Seconds After Turning Ign. ON	0.7-0.9V
	Fuel Pump Relay-Ign. ON, Reading 5 Seconds After Turning Ign. ON	Battery Voltage
105	EGR & Canister Control Solenoid Valve Engine Running @ 2000 RPM/Warm	11-14V
	EGR & Canister Control Solenoid Valve Engine Running @ 4000 RPM/Warm	0.6-0.8V
110	Injector No. 3-Engine is Running	Battery Voltage
111	Exhaust Gas Sensor Heater-Below 3000 RPM Exhaust Gas Sensor Heater-Above 3000 RPM	0V 11-14V
112	Injector No. 4-Engine is Running	Battery Voltage
113	A.A.C. Valve-Engine at Idle	9-14V
	A.A.C. Valve-Engine Running (7)	5-9V

- (1) - Voltage reading for approximately 2 seconds after turning ignition switch off.  
(2) - Voltage reading approximately 2 seconds after turning ignition switch off.  
(3) - Radiator fan on.  
(4) - Radiator fan off.  
(5) - Varies with temperature.  
(6) - Engine is running under no load (do not run at high speed).  
(7) - Steering wheels is being turned, A/C is on, rear defogger is on and headlamps on in high position.