

J - PIN VOLTAGE CHARTS

1992 Subaru SVX

1992 ENGINE PERFORMANCE
Pin Voltage Charts

SVX

INTRODUCTION

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

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.

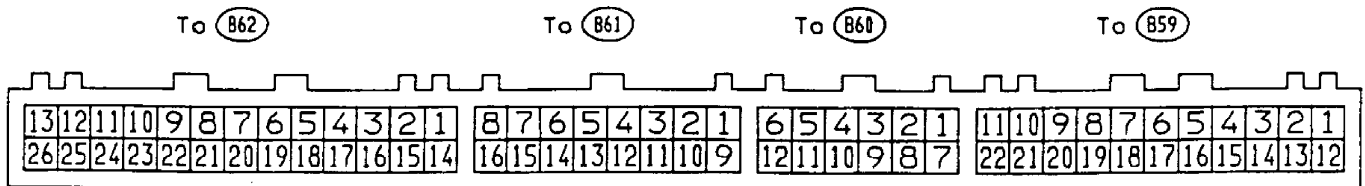
1) ECU circuits are checked at ECU connector under one or more of the following conditions: ignition switch off, ignition on and engine off, or ignition on and engine running.

2) To test pin voltage, carefully backprobe terminal at harness side of ECU connector. Test between indicated terminal and body ground. See Figs. 1-3. Use wire color to help identify terminal. See WIRING COLOR CODE table.

3) If resistance or voltage is not as specified, test and repair or replace circuit or affected component. See Figs. 2 and 3. Retest circuit to verify repair has been made. Unless stated otherwise, perform all tests with ECU harness connected.

WIRING COLOR CODE TABLE

Color Code	Wire Color
B	Black
Br	Brown
G	Green
Gr	Gray
L	Blue
Lg	Light Green
R	Red
W	White
Y	Yellow



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Fig. 1: Identifying ECU Connector Terminals
Courtesy of Subaru of America, Inc.

Content		Connector No.	Terminal No.	Signal			Note
				IG switch		Engine ON (Idling)	
				OFF	ON (Engine OFF)		
Crank angle sensor 1	Signal (+)	B61	1	—	0	*	*: Sensor output waveform
	Signal (-)	B61	2	—	0	0	
	Sealed	B61	3	—	0	0	
Cam angle sensor	Signal (+)	B59	7	—	0	*	*: Sensor output waveform
	Signal (-)	B59	9	—	0	0	
	Sealed	B59	10	—	0	0	
Crank angle sensor 2	Signal (+)	B59	8	—	0	*	*: Sensor output waveform
	Signal (-)	B59	9	—	0	0	
	Sealed	B59	10	—	0	0	
Air flow sensor	V _B	B60	11	—	10 — 13	13 — 14	
	Signal	B60	5	—	0 — 0.3	0.8 — 1.2	
	GND	B60	6	—	0	0	
Throttle sensor	V _{CC}	B60	3	—	5	5	
	Signal	B60	2	—			
	GND	B60	1	—	0	0	
O ₂ sensor 1	Signal	B59	6	—	0.6	1	
	Sealed	B59	17	—	0	0	
O ₂ sensor 2	Signal	B59	5	—	0.6	1	
	Sealed	B59	17	—	0	0	
Knock sensor 1	Signal	B61	5	—	2 — 4	2 — 4	
	Sealed	B61	4	—	0	0	
Knock sensor 2	Signal	B61	6	—	2 — 4	2 — 4	
	Sealed	B61	4	—	0	0	
Water temperature sensor		B59	3	0	0.7 — 1.0	0.7 — 1.0	After warm-up
Vehicle speed sensor 2		B60	11	—	0 or 5	0 or 5	
49-state and Canada/ California identification		B62	4	—			
Starter switch		B61	10	—	0	0	On cranking: 10 — 14
A/C switch		B61	9	—	ON: 10 — 13, OFF: 0	ON: 10 — 13, OFF: 0	
Ignition switch		B60	12	0	10 — 13	13 — 14	
Neutral switch		B60	10	—	N range: 0, Other: 8	N range: 0, Other: 8	
Parking switch		B60	9	—	P range: 0, Other: 8	P range: 0, Other: 8	
Power steering switch		B60	7	—	5	5	

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 Fig. 2: Identifying ECU Circuits (1 Of 2)
 Courtesy of Subaru of America, Inc.

Content	Con- nector No.	Ter- minal No.	Signal			Note	
			IG switch		Engine ON (Idling)		
			OFF	ON (Engine OFF)			
Test mode	B61	13	—	5	5	When connected: 0	
Read memory	B61	12	—	5	5	When connected: 0	
Back-up power supply	B59	15	10 — 13	10 — 13	13 — 14		
Control unit power supply	B59	2	0	10 — 13	13 — 14		
	B59	13	0	10 — 13	13 — 14		
Ignition coil	#1	B62	7	—	0.01	—	
	#2	B62	8	—	0.01	—	
	#3	B62	9	—	0.01	—	
	#4	B62	10	—	0.01	—	
	#5	B62	21	—	0.01	—	
	#6	B62	16	—	0.01	—	
Fuel injector	#1	B62	13	∅	10 — 13	0 - 12	Waveform
	#2	B62	12	∅	10 — 13	0 - 12	Waveform
	#3	B62	11	∅	10 — 13	0 - 12	Waveform
	#4	B62	26	∅	10 — 13	0 - 12	Waveform
	#5	B59	1	∅	10 — 13	0 - 12	Waveform
	#6	B59	12	∅	10 — 13	0 - 12	Waveform
By-pass air control solenoid valve	OPEN end	B62	2	—	7		
	CLOSE end	B62	1	—	6		
Auxiliary air control valve	B62	18	—				
Canister purge control	B62	6	—	ON: 0, OFF: 10 — 13	ON: 0, OFF: 10 — 13		
EGR control	B62	22	—	ON: 0, OFF: 10 — 13	ON: 0, OFF: 10 — 13		
Recirculation gas temperature sensor	B59	4	—	—			
Engine torque control	B59	20	—	—	ON: 0, OFF: 5		
Inertia-Resonance supercharging control	B62	20	—	—	ON: 0, OFF: 13 — 14		
Fuel pump relay control	B62	23	—	ON: 0, OFF: 10 — 13			
Fuel pump discharge flow control	B61	14	—	—	High flow: 0 Low flow: 4 — 7		
A/C clutch control	B60	8	—	—	ON: 0, OFF: 13 — 14		
A/C compressor control	B59	19	—	—			
Radiator fan relay 1 control	B62	17	—	ON: 0, OFF: 10 — 13	ON: 0, OFF: 13 — 14		
Radiator fan relay 2 control	B62	3	—	ON: 0, OFF: 10 — 13	ON: 0, OFF: 13 — 14		
Self-shutoff control	B62	5	—	10 — 13	13 — 14		
Engine revolution output	B61	16	—	—	—		
CHECK ENGINE light	B62	19	—	—	—	Light ON: 1, max., OFF: 10 — 14	
Atmospheric pressure sensor	B59	16	—	—	—		
GND (sensors)	B59	21	—	0	0		
GND (injectors)	B62	24	—	0	0		
	B62	25	—	0	0		
GND (power supply)	B62	14	—	0	0		
GND (ignition system)	B62	15	—	0	0		
GND (control systems)	B59	11	—	0	0		
	B59	22	—	0	0		
Select monitor signal	B61	7	—	—	—		
	B61	8	—	—	—		
GND (body)	B59	14	—	—	—		

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Fig. 3: Identifying ECU Circuits (2 Of 2)
Courtesy of Subaru of America, Inc.