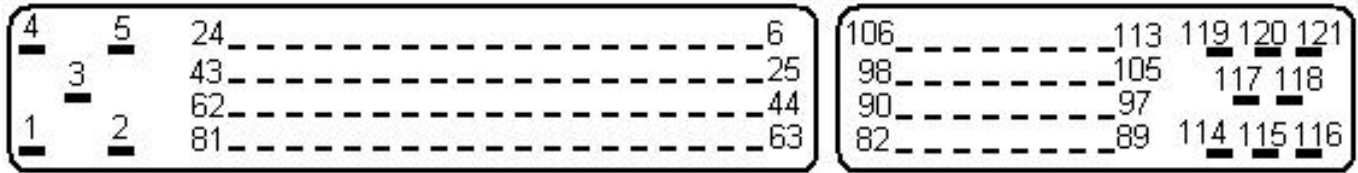


Compiled by NefMoto - <http://nefariousmotorsports.com>



Audi ECU Pin Numbering (Facing ECU, not harness)

2001 S4 J220 Motronic Engine Control Module (ECM)

Pin #	Color	Traced	Description
1	br	y	Ground - connected with pin 2
2	br	y	Ground - connected with pin 1
3	sw/bl	y	Switched +12v power connected to terminal 15
4	ge/bl		Pin 2 Z28 Oxygen sensor (OS2) 2 heater for G108
5	ge/gn		Pin 2 Z19 Oxygen Sensor (OS2) 1 Heater for G39
6	ge/ws		Pin 2 Z30 Oxygen sensor heater in oxygen sensor G131
7			
8			
9	gn/ge		N8 Central Idle, Idle Air Control (IAC) Cut-Off Valve
10	li	y	Pin 3 G131 oxygen sensor 2 behind three way catalytic convertor - (O2S) 2 - Postcat
11	ro	y	Pin 4 G131 oxygen sensor 2 behind three way catalytic convertor - (O2S) 2 - Postcat
12	br	y	Pin 3 G108 Heated oxygen sensor 2 - (HO2S) 2 - Precat
13	ws	y	Pin 4 G108 Heated oxygen sensor 2 - (HO2S) 2 - Precat
14	ge/bl		Pin 2 Z29 Oxygen Sensor (O2S) 2 Heater
15			
16			
17			
18			
19	bl/li		Engine overheat warning light instrument wiring harness, goes to instrument cluster
20	bl/ro		G236 Sensor 2 for exhaust temperature
21			
22			
23			
24			
25	ge/ro		Pin 1 of leak detection pump

26			
27	sw/gn		Pin 3 of G70 Mass Air Flow (MAF) Sensor, ground
28			
29	gn		Pin 4 of G70 Mass Air Flow (MAF) Sensor
30	sw/li		T32/6 of J218 Instrument Cluster
31			
32	sw		Ground
33	gr/ge	y	Pin 4 G185 Sender for accelerator pedal position 2
34	br/gn	y	Pin 6 G185 Sender for accelerator pedal position 2
35	ge/bl	y	Pin 1 G79 Throttle position sensor (Accelerator Pedal Position 1)
36	br/ro	y	Pin 3 G79 Throttle position sensor (Accelerator Pedal Position 1)
37	gn/bl		RPM signal instrument wiring harness
38	sw/ws		Pin 6 & 4 E45 Cruise Control Switch
39	ro/gn		Pin 1 F36 Clutch vacuum vent valve switch - manual only
40	sw/ge		15 point red wire connector in electronics box plenum chamber?
41	sw/gr		T2/87 in instrument wiring harness?
42			
43	gn/sw		K-diagnosis wire in instrument cluster wiring harness
44	ge/gn		N112 Secondary Air Injection (AIR) Solenoid Valve - automatic only
45			
46	bl/gr		J299 Seconday Air Injection (AIR) Pump Relay - automatic only
47	ge/br		instrument cluster combination processor
48	ro/br		instrument cluster combination processor
49			
50		y	
51	ge	y	Pin 3 G39 Heated Oxygen Sensor 1 - (HO2S) 1 - Precat
52			
53	li/gr		Pin 1 of G70 Mass Air Flow (MAF) Sensor, +5v
54	ws/bl		Vehicle speed signal intrument wiring harness
55	ws/ro		Pin 4 Brake light switch
56	ro/sw		Pin 2 Brake light switch
57	ro/ge		Pin 3 E45 Cruise Control Switch
58	or/br		CAN Low bus in instrument wiring harness to power train bus
59			
60	or/sw		CAN High bus in instrument wiring harness to power train bus
61	bl/br		G235 Sensor 1 for exhaust temperature
62			Constant +12v from terminal 30 (battery)
63	ge/ro		Pin 2 Z29 oxygen sensor heater in oxygen sensor G130

64	li/ws		N80 Evaporative Emission (EVAP) Canister Purge Regulator Valve
65	ro/bl		Fuel Pump Relay
66	ro		battery?
67	li/bl		J234 Airbag control module and crash signal in instrument wiring harness
68	gr	y	Pin 3 G130 oxygen sensor 1 behind three way catalytic convertor - (O2S) 1 – Postcat
69	bl	y	Pin 4 G130 oxygen sensor 1 behind three way catalytic convertor - (O2S) 1 – Postcat
70	gn	y	Pin 4 G39 Heated oxygen sensor 1 - (HO2S) 1 - Precat
71			
72	gr		Pin 5 G185 Sender for accelerator pedal position 2, +5v
73	ge/li		Pin 2 G79 Throttle position sensor (Accelerator Pedal Position 1)
74	gn/br		15 point red wire connector in electronics box plenum chamber?
75	bl		Pin 2 E45 Cruise Control Switch
76	ro/gr		Pin 1 E45 Cruise Control Switch
77			
78			
79			
80	ws/ge		Pin 2 of leak detection pump
81	ge		??? - not ground
82	gr		G28 Engine speed sensor
83	br/ro		Pin 2 J338 Throttle Valve Control Module
84	sw/br	y	Pin 4 J338 Throttle Valve Control Module - Sensor 2?
85	gn/ws		Pin 1 G42 Intake air temperature sensor
86	gn/li		Pin 2 G163 Camshaft position sensor (CMP) 2
87	bl/li		Pin 2 G40 Camshaft position sensor (CMP) 1
88	br/li	y	Cylinder 3 Fuel Injector - seems to fire the injector when 0 volts
89	ws/ge	y	Cylinder 6 Fuel Injector - seems to fire the injector when 0 volts
90	bl		G28 Engine speed sensor
91	gn/ro		Pin 6 J338 Throttle Valve Control Module
92	sw/gr	y	Pin 1 J338 Throttle Valve Control Module - Sensor 1?
93	gr/ro	y	Pin 4 G62 Engine coolant temperature sensor
94	gr/ge	y	? N122 Power output stage
95	gr/br	y	? N192 Power output stage 2
96	br/sw	y	Cylinder 1 Fuel Injector - seems to fire the injector when 0 volts
97	br/gn	y	Cylinder 4 Fuel Injector - seems to fire the injector when 0 volts
98	gn/sw		+5 volt
99	ws		Ground

100			
101	bl/gr		Pin 4 G31 Charge air pressure sensor
102	ws/gn	y	? N122 Power output stage
103	ws/br	y	? N192 Power output stage 2
104	bl/gn		N75 Wastegate Bypass Regulator Valve
105			N249 Divert Air Valve
106	br		G61 Knock sensor (KS) 1
107	gn		G66 Knock sensor (KS) 2
108	br/gr		Ground - sensor ground
109			
110	gn/gr	y	? N122 Power output stage
111	gn/br	y	? N192 Power output stage 2
112	br/bl	y	Cylinder 2 Fuel Injector - seems to fire the injector when 0 volts
113	br/gr	y	Cylinder 5 Fuel Injector - seems to fire the injector when 0 volts
114			Not connected
115	br/gr		N205/N208 Valve for camshaft 1/2 adjustment, running change though MY2000, 2001 may be diff
116			Not connected
117	ro/li		Pin 3 J338 Throttle Valve Control Module - Valve Control Voltage?
118	br/li		Pin 5 J338 Throttle Valve Control Module
119			Not connected
120			Not connected
121			Not connected