

Changing ECU MSA 11 (55 pins) to MSA 15 (68 pins)

This is how I did this, but my car doesn't have cruise control, autocheck, onboard computer or automatic GB. So there are few unconnected wires.

If you follow these instructions, you should be able to manage, but I take no responsibility if something goes wrong. I used Y-Wires to do connection, so I could use old ecu untill finished the job.

Heres the pins you need to connect, there are no wire colors for MSA 15, since those change if you use any other cars wiring harness, than T4. And you can use any, that just has 68 pins. Pin numbers still stay the same.

MSA 11

MSA 15

PIN	Wire Color		PIN
1	Red Yellow	Y159 Fuel quantity adjuster	4, 5
2	Red Yellow	Y159 Fuel quantity adjuster	49
3	Black Violet	Y12 Fuel shut-off solenoid	53
4	Brown Blue	H25 Glow plug warning lamp	48
5	Green	B141 Injector needle lift sensor	12
6	Blue Violet	Y28 Exhaust gas recirculation (EGR) solenoid	25
7	Brown Yellow	Y68 Turbocharger (TC) wastegate regulating valve	47
8	Brown Black	K22 Glow plug relay	48
9	Brown Green	K242 Engine coolant heater relay	
10	Blue	Y132 Fuel injection timing solenoid	51
11	Brown Violet	Glow light / Warning light in instrument	26
12	Yellow	B141 Injector needle lift sensor	11
13	Brown White	Data ground	33
14	Brown Red	B177 Fuel quantity adjuster position sensor	7
15	White Black	K46 Engine control relay	42
16	Red White	Power Supply Relay	23
17	Red White	Power Supply Relay	45, 68
18	Brown	Ground	1, 24
19	Brown	Ground	39, 46
20			
21	Red Green	B177 Fuel quantity adjuster position sensor	29
22			
23			
24	Red Black	Cruise control	
25	Grey Yellow	S61 Transmission kick-down switch	65
26	Red Grey	S13 Brake pedal position (BPP) switch	20
27			
28	White Red	S258 Clutch pedal position (CPP) switch	17
29	White Blue	A75 Instrumentation control module (Speed)	43
30	Black Yellow	Cruise control	
31	Red Black	S13 Brake pedal position (BPP) switch	44
32			
33	Red	B138 Accelerator pedal position (APP) sensor	57
34	Violet Black	B30 Mass air flow (MAF) sensor	19
35	Red Blue	B31 Fuel temperature sensor	63
36			
37	Yellow	B138 Accelerator pedal position (APP) sensor	15
38	White Green	Data +5v (MAF and IAT)	13
39	Green Yellow	B177 Fuel quantity adjuster position sensor	52
40	Yellow Grey	A57 Transmission control module (TCM)	

41			---		
42	Green Black	A162 Immobilizer control module	---	61	A162 Immobilizer control module
43	White Red	G1 Alternator / A57 (TCM)	---		G1 Alternator / A57 (TCM)
44					
45	Blue	Cruise control	---		Cruise control
46	Green Yellow	A63 AC control module	---		A63 AC control module
47	Grey	B54 Crankshaft position (CKP) sensor	---	8	B54 Crankshaft position (CKP) sensor
48	Red Green	Cruise control	---		Cruise control
49	Blue Black	A57 Transmission control module (TCM)	---	9	A75 Instrumentation control module (Consumption)
50	Green	A57 Transmission control module (TCM)	---	2	A75 Instrumentation control module (Tacho)
51	Yellow Black	B83 Manifold absolute pressure (MAP) sensor			B83 Manifold absolute pressure (MAP) sensor
52	White Violet	B25 Intake air temperature (IAT) sensor	---	64	B25 Intake air temperature (IAT) sensor
53	Brown Grey	B24 Engine coolant temperature (ECT) sensor	---	14	B24 Engine coolant temperature (ECT) sensor
54	Yellow White	B83 Manifold absolute pressure (MAP) sensor			B83 Manifold absolute pressure (MAP) sensor
55	Black	15 Ignition switch - ignition ON	---	38	15 Ignition switch - ignition ON

MSA 15 has got internal MAP sensor, so you need to take pressure hose to there, OR you can weld out internal MAP and weld in wires for outside MAP sensor (you probably wan't to change it to 3 bar or bigger anyway).

ECU Pins for MAP, looking from pressure house side:

1. +5 Volts
2. Pressure Output
3. GND

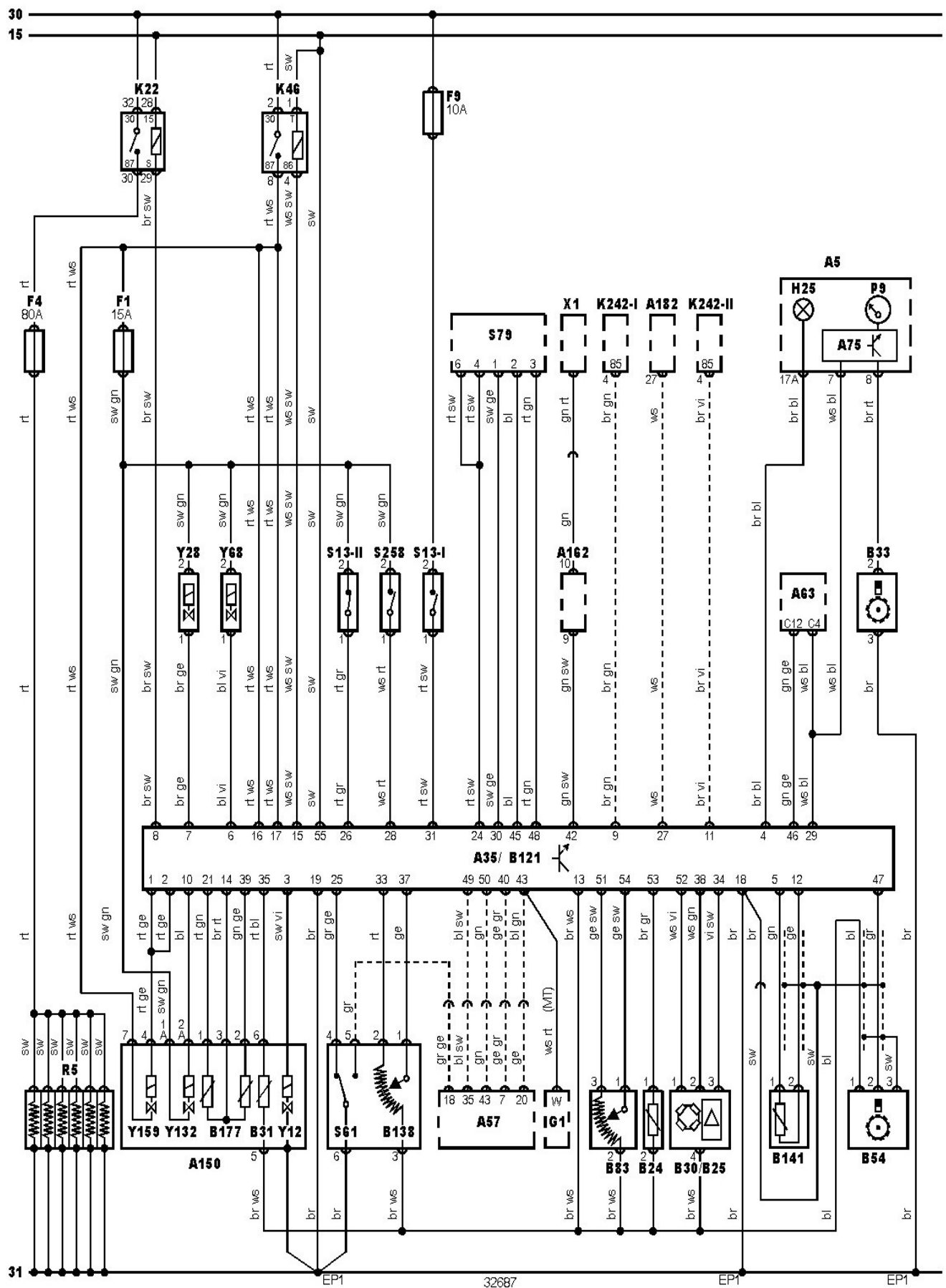
I used in this project newer type MAP sensor, with part number: 038906051C
It has got also Intake Air Temp sensor in it, so you can see boosted air temp instead of original MAF air temp. Just need to do some wiring.

Connection for this new type MAP sensor:

1. GND
2. Intake Air Temp
3. +5 Volts
4. Pressure Output

bl = blue	br = brown	el = cream	ge = yellow
gn = green	gr = grey	nf = neutral	og = orange
rs = pink	rt = red	sw = black	vi = violet
ws = white	hbl = light blue	hgn = light green	rbr = maroon
x = braided cable	y = high tension	z = non-cable connection	

Audi A6 AEL ECU wiring diagram:



VW T4 ACV ECU Wiring diagram.

