



powercontrol technologies

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941 ECU WIRING HARNESS BMW M3 – 6 CYLINDER (COIL-ON-PLUG)

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<u>PIN NO.</u>	<u>DESIGNATION</u>
1	Ignition Drive Cyl. 2
2	Barometric Pressure Signal
3	Lambda Signal 2 (Cyl. 4, 5, 6)
4	Fuel Pressure Signal
5	Not Used
6	Gearshift Light
7	Power Ground
8	Crank Sensor Return (Sensor Pin 01)
9	Not Used
10	Ignition Trim
11	Not Used
12	0V Analogue
13	Crank Sensor Signal (Sensor Pin 02)
14	Fault Lamp / Switch (dashboard)
15	Not Used
16	Powershift Input
17	Air Temperature Signal
18	Not Used
19	Ignition Drive Cyl. 1
20	Ignition Drive Cyl. 5
21	Lambda Signal 1 (Cyl. 1, 2, 3)
22	Gear Position Signal
23	Oil Pressure Signal
24	Not Used
25	Fuel Pump Relay Drive
26	Power Ground
27	Not Used
28	Boost Trim
29	Not Used
30	5V Analogue
31	Not Used

32	Not Used
33	Tachometer Signal
34	Not Used
35	Throttle Signal
36	Water Temperature Signal
37	Ignition Drive Cyl. 6
38	Not Used
39	Not Used
40	Injector Drive 1 (Cyl. 1, 2, 3)
41	Radiator Fan Relay Drive
42	Not Used
43	Not Used
44	Not Used
45	Serial Receive
46	Serial Transmit
47	Fuel Trim
48	5V Analogue
49	0V Analogue
50	Power Ground
51	Power Ground
52	ECU 12V Supply
53	Injector Drive 2 (Cyl. 4, 5, 6)
54	Ignition Drive Cyl. 3
55	Ignition Drive Cyl. 4

Notes:

1. Mapping Connector, if fitted, should be wired as follows:

1	-	ECU 07
2	-	ECU 46
3	-	ECU 45
4	-	ECU 30
5	-	ECU 12
6	-	ECU 47
7	-	ECU 10
8	-	ECU 28

If no mapping plug is fitted to the harness, mapping is carried out using the D Type connector inside the ECU

2. 5V Analogue needs to be connected to Throttle Position Sensor and Barometric Pressure Sensor
3. 0V Analogue needs to be connected to Throttle Position Sensor, Barometric Pressure Sensor, Water Temperature Sensor, Air Temperature Sensor, Fuel Pressure, Oil Pressure
4. Crank Sensor Pin 03 should be connected to the screen of the Crankshaft Sensor connector on the harness and also connected to a Power Ground
5. Temperature Sensors are not polarity sensitive
6. TPS wiring as appropriate

7. Barometric Pressure Sensor wiring:
 - A - 0V Analogue
 - B - Signal
 - C - 5V Analogue
8. Fuel and Oil Pressure are not required to run the engine
9. Wire Lambda Sensors so that their heaters are always ON with Ignition. The return wire should be connected to 0V Analogue
10. All outputs are switched to GROUND when turned ON i.e. Gearshift Light
11. Gear Position is normally a potentiometer fitted to sequential gearboxes