Note Injector Numbers are in firing order not cylinder number

See attached notes.

12 volt supply

Injectors MUST be 5 Ohms or more. If less use ballast resistor.

SEE ATTACHED NOTES

All 5 volt and Sensor Gnd connections are equivalent (except Lambda Gnd). Use the ones which are most suitable for the sensors connected. If not using twisted pair wire, twist together separate wires especially the sensor connections with a pitch of approx. 2.5 cm

Crank sensor connections

Use twisted pair wire with overall screen for crank sensor

VR sensor pin outs (magnetic)

Ford
Pin 1 to pin 8
Pin 2 to pin 47
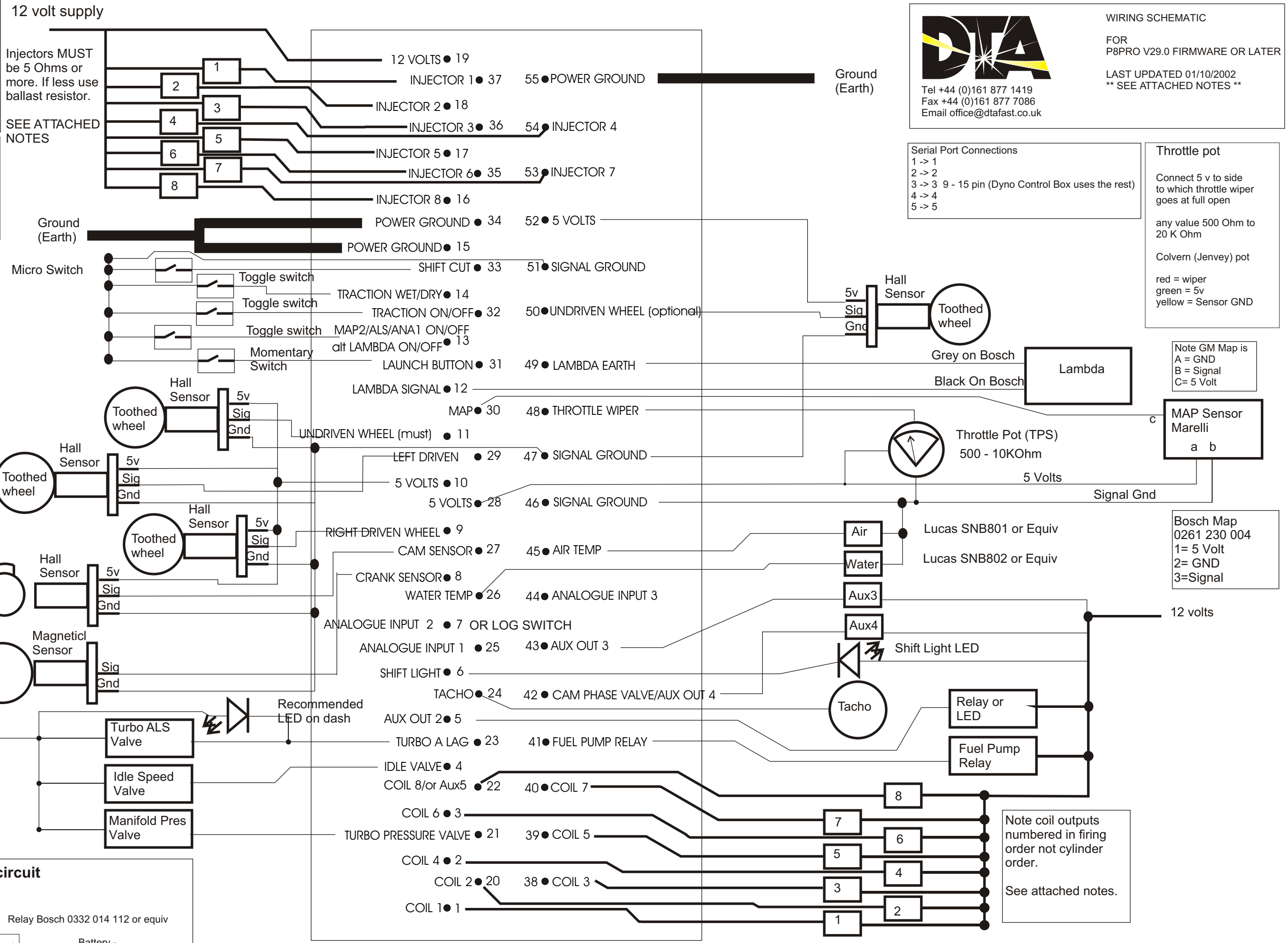Shield to pin 47 at ECU

Vauxhall/Opel/BMW/Volvo/Saab/etc. (Bosch & Siemens)
Pin 1 to pin 8
Pin 2 to pin 47
Pin 3 to shield to pin 47 at ECU

Marelli
Pin 2 to pin 8
Pin 1 to pin 47
Shield to pin 47 at ECU

DTA

WIRING SCHEMATIC
FOR
P8PRO V29.0 FIRMWARE OR LATER
LAST UPDATED 01/10/2002
** SEE ATTACHED NOTES **

Tel +44 (0)161 877 1419
Fax +44 (0)161 877 7086
Email office@dtafast.co.uk

Serial Port Connections
1 -> 1
2 -> 2
3 -> 3   9 - 15 pin (Dyno Control Box uses the rest)
4 -> 4
5 -> 5

Throttle pot

Connect 5 v to side to which throttle wiper goes at full open

any value 500 Ohm to 20 K Ohm

Colvern (Jenvey) pot

red = wiper
green = 5v
yellow = Sensor GND
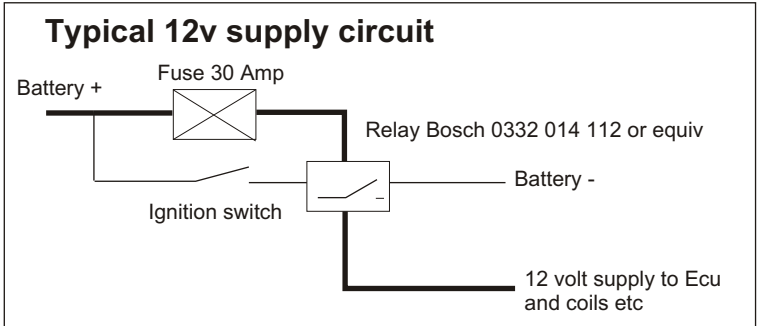
Note GM Map is
A = GND
B = Signal
C= 5 Volt

Bosch Map
0261 230 004
1= 5 Volt
2= GND
3=Signal

12 VOLTS ● 19
INJECTOR 1 ● 37   55 ● POWER GROUND   Ground (Earth)
INJECTOR 2 ● 18
INJECTOR 3 ● 36   54 ● INJECTOR 4
INJECTOR 5 ● 17
INJECTOR 6● 35   53 ● INJECTOR 7
INJECTOR 8 ● 16

Ground (Earth)
POWER GROUND ● 34   52 ● 5 VOLTS
POWER GROUND● 15
SHIFT CUT ● 33   51 ● SIGNAL GROUND

Micro Switch

Toggle switch
TRACTION WET/DRY ● 14
Toggle switch
TRACTION ON/OFF ● 32   50 ● UNDRIVEN WHEEL (optional)
Toggle switch
MAP2/ALS/ANA1 ON/OFF ● 13
alt LAMBDA ON/OFF
Momentary Switch
LAUNCH BUTTON ● 31   49 ● LAMBDA EARTH
LAMBDA SIGNAL ● 12
MAP● 30   48 ● THROTTLE WIPER
UNDRIVEN WHEEL (must) ● 11
LEFT DRIVEN ● 29   47 ● SIGNAL GROUND
5 VOLTS ● 10
5 VOLTS ● 28   46 ● SIGNAL GROUND
RIGHT DRIVEN WHEEL ● 9
CAM SENSOR ● 27   45 ● AIR TEMP
CRANK SENSOR ● 8
WATER TEMP ● 26   44 ● ANALOGUE INPUT 3
ANALOGUE INPUT 2 ● 7 OR LOG SWITCH
ANALOGUE INPUT 1 ● 25   43 ● AUX OUT 3
SHIFT LIGHT ● 6
TACHO● 24   42 ● CAM PHASE VALVE/AUX OUT 4
AUX OUT 2 ● 5
TURBO A LAG ● 23   41 ● FUEL PUMP RELAY
IDLE VALVE ● 4
COIL 8/or Aux5 ● 22   40 ● COIL 7
COIL 6 ● 3
TURBO PRESSURE VALVE ● 21   39 ● COIL 5
COIL 4 ● 2
COIL 2 ● 20   38 ● COIL 3
COIL 1 ● 1

Hall Sensor
5v
Sig
Gnd
Toothed wheel

Grey on Bosch
Black On Bosch
Lambda

MAP Sensor Marelli
a   b
c

Throttle Pot (TPS)
500 - 10KOhm

5 Volts
Signal Gnd

Air   Lucas SNB801 or Equiv
Water   Lucas SNB802 or Equiv
Aux3
Aux4
Shift Light LED
Tacho
12 volts

Relay or LED
Fuel Pump Relay

8
7
6
5
4
3
2
1

Note coil outputs numbered in firing order not cylinder order.

See attached notes.

Hall Sensor
5v
Sig
Gnd
Toothed wheel

Toothed wheel
Hall Sensor
5v
Sig
Gnd

Toothed wheel
Hall Sensor
5v
Sig
Gnd

Cam Wheel Has one Tooth
Hall Sensor
5v
Sig
Gnd

Crank Toothed wheel with missing teeth
Magneticl Sensor
Sig
Gnd

12 Volt Supply

Turbo ALS Valve
Idle Speed Valve
Manifold Pres Valve

Recommended LED on dash

Typical 12v supply circuit

Battery +
Fuse 30 Amp
Relay Bosch 0332 014 112 or equiv
Battery -
Ignition switch
12 volt supply to Ecu and coils etc

Latch end

Injector Wiring

Note all injectors must be high impedance types or use a ballast resistor.

Sequential

Remember that the outputs are numbered in firing sequence, that is 1 is the first to fire, 2 the second etc. For a 4 cylinder with a firing sequence of 1/3/4/2 connect wires as below.

Cyl	1	3	4	2
O/P	1	2	3	4

And similarly for 6 or 8 cylinder engines. 8 cylinders is the maximum that can be handled with sequential injection. A cam sensor MUST be fitted for sequential injection.

Non Sequential

Use O/P's 1,2 and 5,6. Balance numbers of injectors on each

Non Sequential Twin Injector

Injectors 1:- Use O/P's 1,2 and 5,6. Balance numbers of injectors on each

Injectors 2:- Use O/P's 3,4 and 7,8. Balance numbers of injectors on each

Coil Wiring

Coil Per Plug

Remember that the outputs are numbered in firing sequence, that is 1 is the first to fire, 2 the second etc. For a 4 cylinder with a firing sequence of 1/3/4/2 connect wires as below. A cam sensor MUST be fitted for coil per plug operation.

Cyl	1	3	4	2
O/P	1	2	3	4

And similarly for 6 or 8 cylinder engines.

Wasted Spark

Use the lowest outputs. For a 6 cylinder engine with a firing order of 1/3/6/4/5/2 wire as below.

Cyl	1	3	6
Cyl	4	5	2
O/P	1	2	3

Distributor

Use Coil output 1 or 2..

Twin Spark

Coil O/P's 1 to 4 work as normal. Coil O/P's 5 to 8 are the matching second plug. For a 4 cylinder, coil per plug, twin spark wire as below.

Cyl	1	3	4	2	First Plug
O/P	1	2	3	4	

Cyl	1	3	4	2	Second Plug
O/P	5	6	7	8	

Four cylinder coil per plug or 8 cylinder wasted spark is the maximum for twin spark operation.

ANALOGUE 2 WIRING FOR LOG SWITCH

If using the analogue 2 input for switching the log on and off use the following wiring.

5 volts

4K7 resistor

Analogue 2

Toggle switch
Log on = switched closed

Sig Gnd
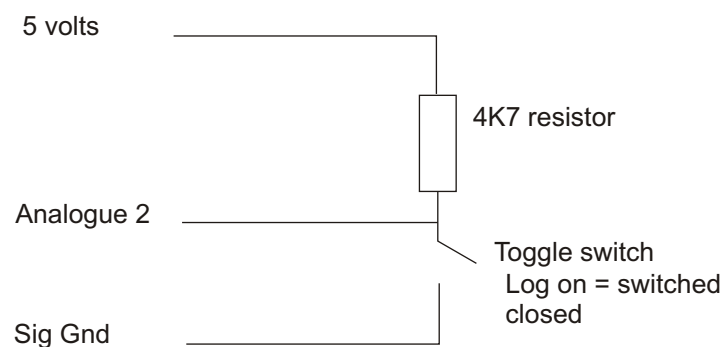
Special Considerations for Audi 5 Cylinder

The engine must have 5 coils and a 60 - 2 crank wheel at 60 degrees. Set to 10 cylinders in general engine settings. Set unequal firing and 1 coil per plug OFF in unequal firing angles. Set sequential injection OFF in injector phasing. You do not need a cam sensor.

Wire coils as below

Cyl	1	5	2	3	4
O/P	1	2	3	4	5

Wire Injectors as below

Cyl	1	5	2	3	4
O/P	1	2	5	6	6