Service Guide

Peugeot 306 GTI-6

1997-1998

Peugeot 306 2.0i GTI-6 16 valve **Engine Code: XU10J4(RFS)** **1997-1998**

Service at 9000 miles

Carried out on _____

Carried out by

Customer Name
Vehicle Registration
Current Mileage:

The items checked on this inspection are shown below. Where inspection has indicated the need for further attention in the interests of safety and maintenance of your vehicle value, we recommend that corrective action is taken as soon as possible.

OK ✓
Requires further attention X

Service Details:

	Engine oil: change
	Oil filter: replace
	Automatic transmission: drain & refill
	**** for the above see Special Notes (1) ****
	Automatic transmission: check fluid level
	Transfer box: check oil level
	Differential for (4WD): check oil level
	**** for the above see Special Notes (2) ****
	Vehicle underside: complete check
	Engine: check for leaks & damage
	P.A.S. system: check for leaks
	Hydraulic system: replace filter
	Lights / indicators / controls / warning lamps: check
	Clutch: pedal height check / adjust
	Battery: check for leaks / charge level / distilled water top-up
	Windscreen wiper / wash: check fluid level / antifreeze content
	Cooling system: check for level / specific gravity
	Brake fluid level: check
	P.A.S. fluid level: check
	Cooling system: check for level / specific gravity
	Check on rolling road or test drive

I confirm that all the appropriate checks and adjustments have been made correctly.

Technician: ..... Workshop Supervisor: .....

Peugeot 306 2.0i GTI-6 16 valve **Engine Code: XU10J4(RFS)** **1997-1998**

Service at 18000 miles

Carried out on _____

Carried out by

Customer Name

Vehicle Registration

Current Mileage:

The items checked on this inspection are shown below. Where inspection has indicated the need for further attention in the interests of safety and maintenance of your vehicle value, we recommend that corrective action is taken as soon as possible.

OK ✓

Requires further attention X

Service Details:

	Engine oil: change
	Oil filter: replace
	Automatic transmission: drain & refill
	**** for the above see Special Notes (1) ****
	Transfer box: refill
	Differential for (4WD): refill
	**** for the above see Special Notes (2) ****
	Automatic transmission: check fluid level
	Drive shaft boots: check / replace
	Ball joints: check for wear
	Vehicle underside: complete check
	Engine: check for leaks & damage
	P.A.S. system: check for leaks
	Clutch: pedal height check / adjust
	Parking brake: check / adjust
	Brake pads front: clean / check / replace
	Spark plugs: replace / adjust
	V-belt(s): check / adjust / replace
	Pollen filter: replace
	Battery: check for leaks / charge level / distilled water top-up
	Windscreen wiper / wash: check fluid level / antifreeze content
	Cooling system: check for level / specific gravity
	Brake fluid level: check
	P.A.S. fluid level: check
	Fuel filter(s): check / replace
	Lights / indicators / controls / warning lamps: check
	Cruise control system: check
	Tyres including spare: check condition / pressure / tread depth
	Check on rolling road or test drive
	**** for the above see Special Notes (3) ****

I confirm that all the appropriate checks and adjustments have been made correctly.

Technician: ..... Workshop Supervisor: .....

Peugeot 306 2.0i GTI-6 16 valve **Engine Code: XU10J4(RFS)** **1997-1998**

Service at 27000 miles

Carried out on _____

Carried out by

Customer Name
Vehicle Registration
Current Mileage:

The items checked on this inspection are shown below. Where inspection has indicated the need for further attention in the interests of safety and maintenance of your vehicle value, we recommend that corrective action is taken as soon as possible.

OK ✓
Requires further attention X

Service Details:

	Oil filter: replace
	Automatic transmission: drain & refill
	Transfer box: check oil level
	Differential for (4WD): check oil level
	**** for the above see Special Notes (2) ****
	P.A.S. fluid level: check
	Cooling system: check for level / specific gravity
	Windscreen wiper / wash: check fluid level / antifreeze content
	Battery: check for leaks / charge level / distilled water top-up
	Air filter(s): replace element
	Pollen filter: replace
	Hydraulic system: check filter clean / replace
	V-belt(s): check / adjust / replace
	Brake pads front: clean / check / replace
	Brake pads rear: clean / check / replace
	Drive shaft boots: check / replace
	Ball joints: check for wear
	Vehicle underside: complete check
	Tie rod ends: check for wear: check boots for damage
	Engine: check for leaks & damage
	P.A.S. system: check for leaks
	Shock absorbers: check for leaks / wear / damage etc.
	Tyres including spare: check condition / pressure / tread depth
	Clutch: pedal height check / adjust
	Parking brake: check / adjust
	Lights / indicators / controls / warning lamps: check
	Engine management: self diagnostics check
	Cruise control system: check
	Brake fluid: replace
	Check on rolling road or test drive

I confirm that all the appropriate checks and adjustments have been made correctly.

Technician: ..... Workshop Supervisor: .....

Peugeot 306 2.0i GTI-6 16 valve **Engine Code: XU10J4(RFS)** **1997-1998**

Service at 36000 miles

Carried out on _____

Carried out by

Customer Name
Vehicle Registration
Current Mileage:

The items checked on this inspection are shown below. Where inspection has indicated the need for further attention in the interests of safety and maintenance of your vehicle value, we recommend that corrective action is taken as soon as possible.

OK ✓
Requires further attention X

Service Details:

	Engine oil: change
	Oil filter: replace
	Automatic transmission: drain & refill
	**** for the above see Special Notes (1) ****
	Transfer box: refill
	Differential for (4WD): refill
	**** for the above see Special Notes (2) ****
	Differential for (4WD): refill
	Automatic transmission: check fluid level
	Drive shaft boots: check / replace
	Ball joints: check for wear
	Vehicle underside: complete check
	Engine: check for leaks & damage
	P.A.S. system: check for leaks
	Clutch: pedal height check / adjust
	Parking brake: check / adjust
	Brake pads front: clean / check / replace
	Linings rear: clean / check / replace
	Spark plugs: replace / adjust
	V-belt(s): check / adjust / replace
	Pollen filter: replace
	Battery: check for leaks / charge level / distilled water top-up
	Windscreen wiper / wash: check fluid level / antifreeze content
	Cooling system: check for level / specific gravity
	Brake fluid level: check
	P.A.S. fluid level: check
	Fuel filter(s): check / replace
	Lights / indicators / controls / warning lamps: check
	Cruise control system: check
	Tyres including spare: check condition / pressure / tread depth
	Check on rolling road or test drive
	**** for the above see Special Notes (3) ****

I confirm that all the appropriate checks and adjustments have been made correctly.

Technician: ..... Workshop Supervisor: .....

Peugeot 306 2.0i GTI-6 16 valve **Engine Code: XU10J4(RFS)** **1997-1998**

Service at 45000 miles

Carried out on _____

Carried out by

Customer Name
Vehicle Registration
Current Mileage:

The items checked on this inspection are shown below. Where inspection has indicated the need for further attention in the interests of safety and maintenance of your vehicle value, we recommend that corrective action is taken as soon as possible.

OK ✓
Requires further attention X

Service Details:

	Engine oil: change
	Oil filter: replace
	Automatic transmission: drain & refill
	**** for the above see Special Notes (1) ****
	Automatic transmission: check fluid level
	Transfer box: check oil level
	Differential for (4WD): check oil level
	**** for the above see Special Notes (2) ****
	Vehicle underside: complete check
	Engine: check for leaks & damage
	Fuel filter(s): replace
	P.A.S. system: check for leaks
	Hydraulic system: replace filter
	Lights / indicators / controls / warning lamps: check
	Clutch: pedal height check / adjust
	Battery: check for leaks / charge level / distilled water top-up
	Windscreen wiper / wash: check fluid level / antifreeze content
	Cooling system: check for level / specific gravity
	Brake fluid level: check
	P.A.S. fluid level: check
	Cooling system: check for level / specific gravity
	Check on rolling road or test drive

I confirm that all the appropriate checks and adjustments have been made correctly.

Technician: ..... Workshop Supervisor: .....

Peugeot 306 2.0i GTI-6 16 valve **Engine Code: XU10J4(RFS)** **1997-1998**

Service at 54000 miles

Carried out on _____

Carried out by

Customer Name
Vehicle Registration
Current Mileage:

The items checked on this inspection are shown below. Where inspection has indicated the need for further attention in the interests of safety and maintenance of your vehicle value, we recommend that corrective action is taken as soon as possible.

OK ✓
Requires further attention X

Service Details:

	Engine oil: change
	Oil filter: replace
	Automatic transmission: drain & refill
	Transfer box: refill
	Differential for (4WD): refill
	**** for the above see Special Notes (2) ****
	Gearbox / differential: check oil level
	Clutch: pedal height check / adjust
	Parking brake: check / adjust
	Brake pads front: clean / check / replace
	Brake pads rear: clean / check / replace
	Linings rear: clean / check / replace
	Drive shaft boots: check / replace
	Ball joints: check for wear
	Vehicle underside: complete check
	Hydraulic system: check filter clean / replace
	Engine: check for leaks & damage
	P.A.S. system: check for leaks
	Shock absorbers: check for leaks / wear / damage etc.
	Hydraulic system: replace fluid
	Brake fluid: replace
	Cooling system: drain / flush / refill
	**** for the above see Special Notes (3) ****
	P.A.S. fluid level: check
	Cooling system: check for level / specific gravity
	Windscreen wiper / wash: check fluid level / antifreeze content
	Battery: check for leaks / charge level / distilled water top-up
	Air filter(s): replace element
	Pollen filter: replace
	V-belt(s): check / adjust / replace
	Spark plugs: replace / adjust
	Lights / indicators / controls / warning lamps: check
	Engine management: self diagnostics check
	Check on rolling road or test drive

I confirm that all the appropriate checks and adjustments have been made correctly.

Technician: ..... Workshop Supervisor: .....

Peugeot 306 2.0i GTI-6 16 valve **Engine Code: XU10J4(RFS)** **1997-1998**

Service at 72000 miles

Carried out on _____

Carried out by

Customer Name
Vehicle Registration
Current Mileage:

The items checked on this inspection are shown below. Where inspection has indicated the need for further attention in the interests of safety and maintenance of your vehicle value, we recommend that corrective action is taken as soon as possible.

OK ✓
Requires further attention X

Service Details:

	Engine oil: change
	Oil filter: replace
	Automatic transmission: drain & refill
	Transfer box: refill
	Differential for (4WD): refill
	**** for the above see Special Notes (2) ****
	Gearbox / differential: check oil level
	Clutch: pedal height check / adjust
	Parking brake: check / adjust
	Brake pads front: clean / check / replace
	Brake pads rear: clean / check / replace
	Linings rear: clean / check / replace
	Drive shaft boots: check / replace
	Ball joints: check for wear
	Vehicle underside: complete check
	Hydraulic system: check filter clean / replace
	Engine: check for leaks & damage
	P.A.S. system: check for leaks
	Shock absorbers: check for leaks / wear / damage etc.
	Brake fluid: replace
	Cooling system: drain / flush / refill
	**** for the above see Special Notes (3) ****
	P.A.S. fluid level: check
	Cooling system: check for level / specific gravity
	Windscreen wiper / wash: check fluid level / antifreeze content
	Battery: check for leaks / charge level / distilled water top-up
	Air filter(s): replace element
	Pollen filter: replace
	V-belt(s): check / adjust / replace
	**** for the above see Special Notes (4) ****
	Timing belt(s): replace
	Spark plugs: replace / adjust
	Lights / indicators / controls / warning lamps: check
	Engine management: self diagnostics check
	Check on rolling road or test drive

I confirm that all the appropriate checks and adjustments have been made correctly.

Technician: ..... Workshop Supervisor: .....

Peugeot 306 2.0i GTI-6 16 valve **Engine Code: XU10J4(RFS)** **1997-1998**

Service at 90000 miles

Carried out on _____

Carried out by

Customer Name
Vehicle Registration
Current Mileage:

The items checked on this inspection are shown below. Where inspection has indicated the need for further attention in the interests of safety and maintenance of your vehicle value, we recommend that corrective action is taken as soon as possible.

OK ✓
Requires further attention X

Service Details:

	Engine oil: change
	Oil filter: replace
	Automatic transmission: drain & refill
	**** for the above see Special Notes (1) ****
	Transfer box: refill
	Differential for (4WD): refill
	**** for the above see Special Notes (2) ****
	Automatic transmission: check fluid level
	Drive shaft boots: check / replace
	Ball joints: check for wear
	Vehicle underside: complete check
	Engine: check for leaks & damage
	Fuel filter(s): replace
	P.A.S. system: check for leaks
	Clutch: pedal height check / adjust
	Parking brake: check / adjust
	Brake pads front: clean / check / replace
	Spark plugs: replace / adjust
	V-belt(s): check / adjust / replace
	Pollen filter: replace
	Hydraulic system: replace filter
	Battery: check for leaks / charge level / distilled water top-up
	Windscreen wiper / wash: check fluid level / antifreeze content
	Cooling system: check for level / specific gravity
	Brake fluid level: check
	P.A.S. fluid level: check
	Fuel filter(s): check / replace
	Lights / indicators / controls / warning lamps: check
	Cruise control system: check
	Tyres including spare: check condition / pressure / tread depth
	Check on rolling road or test drive
	**** for the above see Special Notes (3) ****

I confirm that all the appropriate checks and adjustments have been made correctly.

Technician: ..... Workshop Supervisor: .....

Special Notes

1. 405/605 models only
2. 405 4 x 4 only
3. . coolant - change every 2 years
4. only TU & X U engines

Changing gearbox oil.

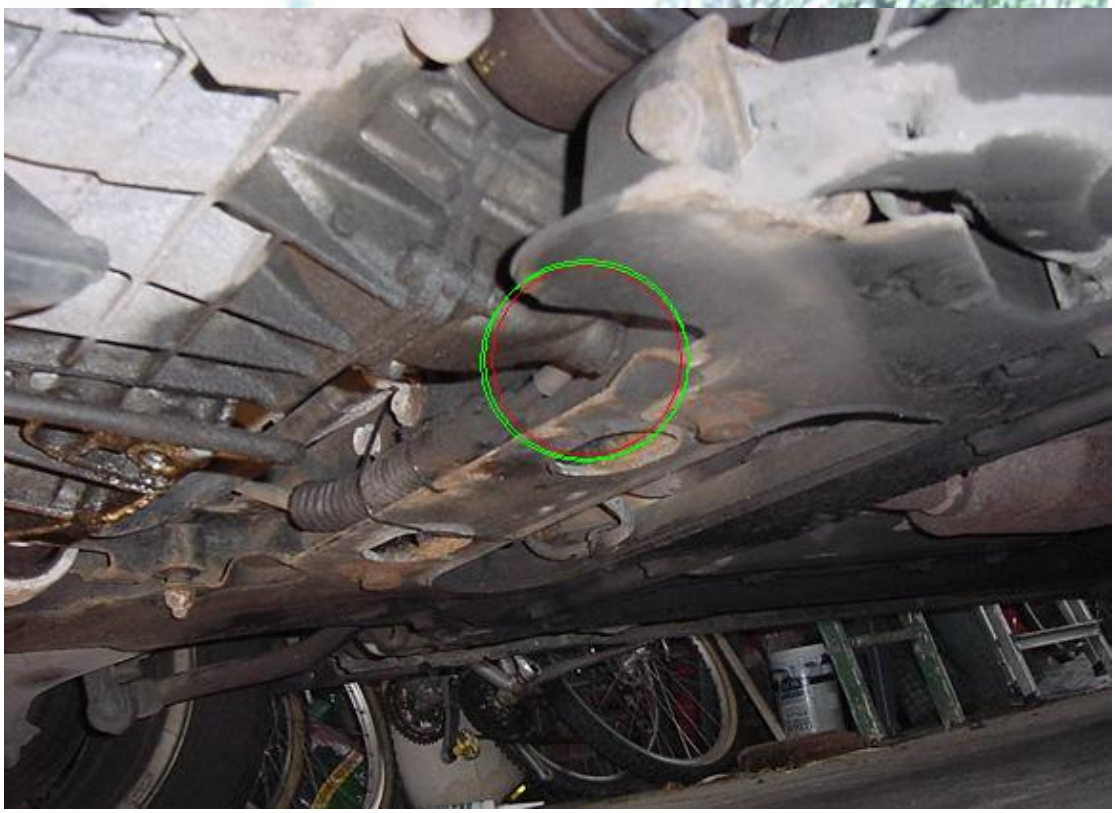
I found that the best way to drain the oil is without taking the wheels off, this stop the oil from cooling down. It's difficult enough to get the oil when it's hot, nearly impossible when cold. It's fairly easy to do without removing the wheel and then it's easier to raise the driver side to drain the oil.

Also, make sure you have:
-a length of tubing 8mm approx. diameter
-some PTFE thread seal tape to seal where the tube goes into the gearbox
- a funnel to attach to the tube
-2.15 litres of oil
-three washers, I can't remember the diameters, sorry. Get a bag of different sizes perhaps? I took the bolts out and then drove to the shop in my other car.

So, here is my attempt to guide through changing the oil as simple as possible:

1) Take the car for a long, fast drive to warm the gearbox oil. You need it to be warm so that it drains well.

2) Put a full left lock on so that you can get to the gearbox. Jack the car up from the front passenger side. Place something under the gearbox to catch oil and undo the drain plug, circled in green. The gearbox is on the passenger side of the car. The oil comes out of this bolt **fast** so be careful.



3) Then undo the filler plug circled in red and the other bolt circled in blue so that the oil can flow out better. I find it better to undo the bolts this way so that you don't get oil coming out too fast and possibly scalding you.

4) When the oil starts to slow down, jack up the driver side high to tip more of the oil out.
5) I left the car with the driver jacked up for about 1 hour to get as much of the oil out as possible.
6) Then the tricky part, first lower the driver side and make sure the car is level.
7) Then fit a new washer and refit the drain plug and the bolt circled in blue.
8) Then wrap PTFE tape around one end of the tube and drop it into the funnel so that the PTFE end falls in last and forms a seal. I'm trying to describe this as best I can!
9) Then insert the tube into the filler hole, bend the tube so that the funnel is upright without kinking the tube and perhaps attach the funnel to the suspension spring to make it easier if you like.
10) Pour oil very slowly into the gearbox so that it disperses well. This can take a lot of time!
11) Keep topping up until some oil flows out, then take the tube out and let the excess drain out. Refit the filler plug with a new washer.
12) Take it for a drive and then check the drain plug by pouring a bit more oil in and letting it drain off. You can't overfill the gearbox as long as you let the excess drain off and make sure the car is level.

Also, the gearbox oil absolutely stinks!!! Seriously, it is rancid.

Adjustment Data (Brakes)

DESCRIPTION	SETTING	UNIT
Type: Front / Rear	disc / disc	
Front Disc Thickness: New / Limit	20.40/18.40	mm
Rear Disc Thickness: New / Limit	8/6	mm
Rear Drum Diameter: New / Limit	N/A	
Front Pad Limit	2	mm
Rear Pad Limit	2	mm
Rear Lining Limit	N/A	
Parking Brake Travel	4/7	notches

Adjustment Data (Electrical)

DESCRIPTION	SETTING	UNIT
Battery Capacity	12/-	v/Ah
Alternator Power	75	A
Controlled Voltage	13.80/14.80	V
Starter Motor Power	1.1	kW

Adjustment Data (Engine)

DESCRIPTION	SETTING	UNIT
Engine Code	XU10J4(RFY/RFS)	
Engine Format	4/DOHC	
Cylinder Capacity	1998	cc
Valve Clearance Inlet	hydraulic	
Valve Clearance Exhaust	hydraulic	
Adjustment Conditions	N/A	

Adjustment Data (Fuel)

DESCRIPTION	SETTING	UNIT
Carburettor / Injection Make	Bosch/Magneti Marelli	
Carburettor / Injection Type	Motronic MP 3.2 Mpi / Magneti Marelli 1AP	
Fuel Pump Pressure	3.00±0.20	bar
Injection Pressure	2.50±0.20	bar
Idle Speed	non-adjustable	
Raised Idle Speed	N/A	
CO At Idle Speed	0.50 maximum	%
Carbon Dioxide At Idle Speed	10 minimum	%
HC At Idle Speed	100 maximum	ppm
Oxygen At Idle Speed	0.30±0.20	%

Adjustment Data (Ignition)

DESCRIPTION	SETTING	UNIT
System Type	electronic	
Sequence	1-3-4-2	
Contact Breaker Gap	N/A	
Spark Plug Electrode Gap	0.8	mm
Torque Setting	28	Nm
Coil Make	Sagem / Valeo	
Coil Type	BAE01	
Primary Resistance	0.7	Ohms
Secondary Resistance	6600	Ohms
Stroboscopic Timing BTDC	non-adjustable	
Centrifugal Advance Begins	ECU controlled	
Centrifugal Advance Test	ECU controlled	
Centrifugal Advance Ends	ECU controlled	
Vacuum Advance Begin	electronic advance	
Vacuum Advance Test	electronic advance	
Vacuum Advance Ends	electronic advance	

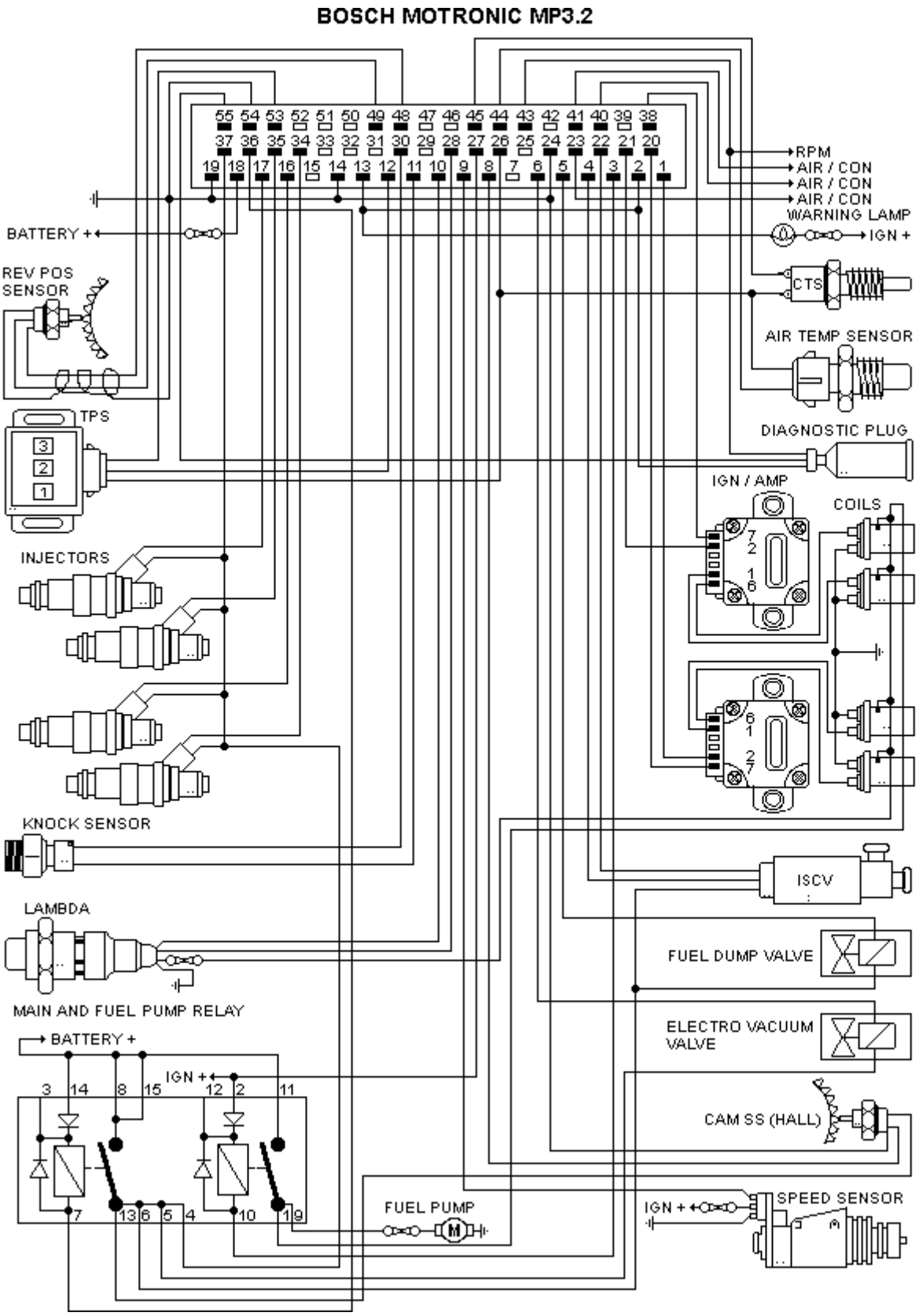
Adjustment Data (Suspension)

DESCRIPTION	SETTING	UNIT
Vehicle Loading	kerbside weight	
Front Wheel Alignment	toe in	
Front Wheel Tracking	2±1	mm
Front Wheel Camber	-0°20'±30' (RFS -25´±30´)	deg.
Front Wheel Castor	3°20'±30' (RFS 3°30´±30´)	deg.
Front Wheel KPI	11°±30' (RFS 11°15´±30´)	deg.
Rear Wheel Alignment	toe in	
Rear Wheel Tracking	4.20±1.50 (RFS 2.10±0.50)	mm
Rear Wheel Camber	-1°20'±15'	deg.
Tyre Size	195/55 VR 15	
Tyre Size	N/A	
Tyre Pressures Front	2	bar
Tyre Pressures Rear	2.1	bar

Adjustment Data (Torque Settings)

DESCRIPTION	SETTING	UNIT
Cylinder Head Bolts Stage 1	35	Nm
Cylinder Head Bolts Stage 2	70	Nm
Cylinder Head Bolts Stage 3	160	deg.
Cylinder Head Bolts Stage 4	N/A	
Cylinder Head Bolts Stage 5	N/A	
Big End Nuts / Bolts	20.00 then 70	Nm / deg.
Main Bearing Nuts / Bolts	80	Nm
Flywheel Nuts / Bolts	50	Nm
Clutch to Flywheel Nuts / Bolts	25	Nm
Inlet Manifold Nuts / Bolts	20	Nm
Exhaust Manifold Nuts / Bolts	35	Nm
Front Hub Nut	M20 265.00 M24 325.00	Nm
Rear Hub Nut	185	Nm
Road Wheel Nuts / Bolts	90	Nm

Circuit Diagram



Injection and Engine Management Circuit Diagram Abbreviations

AATS	Ambient Air Temperature Sensor
AAV	Auxiliary Air Valve
AC	Air Conditioning
AFM	Air Flow Meter
APS	Atmosphere Pressure Sensor
AT	Automatic Transmission
ATS	Air Temperature Sensor
AVSM	Air Valve Stepper Motor
CAT	Catalytic Converter
CCS	Crank / Cylinder Sensor
CFI	Central Fuel Injection
CFSV	Carbon Filter Solenoid Valve
CID	Camshaft Identification Sensor
CO	Carbon Monoxide
CS	Crankshaft Sensor
CSV	Cold Start Valve
CTS	Coolant Temperature Sensor
CWSM	Carburettor With Stepper Motor
DEE	Digital Engine Electronics
DHE	Distributor (Hall Effect)
DME	Digital Motor Electronics
ECCS	Electronic Concentrated Control System
ECI	Electronically Controlled Injection
ECU	Electronic Control Unit
EDIS	Electronic Distributorless Ignition System
EEC	Electronic Engine Control
EFI	Electronic Fuel Injection
EGR	Exhaust Gas Recirculation
EM	Engine Management
EPT	Exhaust Pressure Transducer
ESC	Electronic Spark Control
EVLS	EGR Valve Lift Sensor
EVR	Electronic Vacuum Regulator
FCS	Fuel Cut-Off Solenoid
FLS	Full Load Switch
FPED	Full Power Enrichment Device
FTS	Fuel Temperature Sensor
HEGO	Heated Exhaust Gas Oxygen Sensor

Injection and Engine Management Circuit Diagram Abbreviations

ICE	Idle Control ECU
IDS	Idle Switch
IGA	Ignition Amplifier
IGC	Ignition Coil
IMA	Idle Mixture Adjuster
INR	Injector Resistor
IRP	Injector Resistor Pack
ISCV	Idle Speed Control Valve
ISW	Inertia Switch
KAM	Keep Alive Memory
KS	Knock Sensor
LS	Lambda Sensor
MAP	Manifold Absolute Pressure
MEMS	Modular Engine Management System
MMFD	Magneti Marelli Fuel Division
MPI	Multi-Point Injection
OTS	Oil Temperature Sensor
PA	Power Amplifier
PGMFI	Programmed Fuel Injection
PHS	Phase Sensor
PIE	Programmed Ignition ECU
PTC	Positive Temperature Coefficient
RON	Research Octane Number
RPM	Revolutions Per Minute
RTS	RPM / TDC Sensor
SPI	Single Point Injection
TCCS	Toyota Computer Control System
TDC	Top Dead Centre
TFI	Thick Film Ignition
TPS	Throttle Position Sensor / Switch
TPSW	Throttle Pedal Switch
TTS	Thermo-Time Switch
UESC	Universal Electronic Spark Control
UPAC	Universal ESC Computer Plus ATS
VAS	Vacuum Sensor
VSW	Vacuum Switch
WR	Warm-Up Regulator

Injection and Engine M anagement Diagnostics - Generic Procedures

Basic guidelines for diagnosing faults on vehicle systems (Generic text for information purposes only)

Diagnostic Process:

Six-stage process:
Verify the fault.
Collect further information.
Evaluate the evidence.
Carry out further tests in a logical sequence.
Rectify the problem.
Check all systems.

The art of diagnostics:
The knowledge needed for accurate diagnostics is in two parts:
Understanding of the system in which the problem exists.
The ability to apply a logical diagnostic routine.

Diagnostics:
What is an acceptable value?
The reference data gives the resistance of a component between 60 ohms and 90 ohms.
What if, when measured, the value is 55 ohms?
If the measured value was 0 ohms or 1000 ohms then the component is faulty!
In this case (55 ohms) it is very likely that the component is serviceable.
The decision over this type of issue is difficult and must in many cases be based on experience.
As a general guide the reading is in the right ‘order of magnitude’.
The component has a good chance of being serviceable.
This illustrates that diagnostic work can involve ‘playing the best odds’.
As long as this is within a logical process.

Diagnostic Techniques:
Check the obvious first!
Start hands-on diagnostic routines with ‘hand and eye checks’.
Look over the vehicle for obvious faults.
For example, if automatic transmission fluid is leaking correct this before carrying out stall tests.
Start on diagnostic routines with ‘hand and eye checks’.
Look over the vehicle for obvious faults.
For example, if the battery terminals are loose or corroded correct this before carrying out voltage readings.
A misfire may be caused by a loose plug lead.
It is easier to look for this than interpret the ignition waveforms.

Generic electrical testing procedure:
The following procedure is very general but with adaptation can be applied to any electrical system.
Refer to manufacturer’s recommendations if in any doubt.
The process of checking any system circuit is broadly as follows:
Checks (loose wires, switches and other obvious faults).
Check battery - must be 70% charged.
Check motor/solenoid/linkage/bulbs/unit.
Fuse continuity - check voltage both sides with meter or test lamp.
If used does the relay click?
This means it has operated. It is not necessarily making contact.
Supply to switch - battery voltage.
Supply from the switch - battery voltage.
Supplies to relay - battery voltage.
Feed out of the relay - battery voltage.
Voltage supply to the ‘motor’ (etc.) - within 0.5V of the battery.
Earth circuit (continuity or voltage) - 0 ohms or 0V.

Test procedure:

Volt drop testing:
Battery voltage normally about 12.6V with a drop that may be 0.1 or 0.2V.
Voltage drop testing has a basic rule for a series electrical circuit.
The sum of all volt drops around a circuit always adds up to the supply.
Check that the circuit is switched on and operating, or trying to operate.
When testing the battery voltage the measurement is say 12V.
To further narrow the cause of a voltage drop, simply measure across a smaller area.

Testing for short circuits to earth:
This fault will normally blow a fuse or burn out the wiring completely.
Traceing a short circuit is very different to looking for a high resistance connection or an open circuit.
The volt drop testing above will trace an open circuit or a high resistance connection.
The method of tracing a short is to connect a bulb or test lamp across the blown fuse and switch on the circuit.
The bulb will light because it is connected to the supply for the fuse and to earth via the fault.
Now disconnect small sections of the circuit one at a time until the test lamp goes out.
This will indicate the particular circuit section that has shorted out.

On and off load tests:
On load means that a circuit is drawing a current.
Off load means it is not.
One example where this may be an issue is when testing a starter circuit.
Battery voltage may be 12V off load but only 9V when on load.
A second example is the supply to the + terminal of the coil via a high resistance connection (corroded switch terminal for example).
With the ignition on and the vehicle not running, the reading will normally be battery voltage.
The ignition ECU switches off the primary circuit and no volt drop will show up.
If the circuit were switched on (with a fused jumper lead) a lower reading would result showing up the fault.

Black box technique:
The technique that will be covered here is known as ‘black box fault finding’.
It can be applied to many vehicle systems from engine management, ABS, cruise control and instrumentation.
As most systems now revolve around an ECU it is considered to be a ‘black box’.
Treating the ECU as a ‘black box’ allows us to ignore its complexity.
If all sensors, output actuators, supply / earth connections and wiring is serviceable, the fault must be the ECU.
Most ECU's are very reliable and it is far more likely that the fault will be found in the inputs or outputs.
Normal fault finding or testing techniques can be applied to the sensors and actuators.
Sometimes however, it is almost an advantage not to know the manufacturer's recommended readings.
If the value should be between 800 ohms and 900 ohms, and the reading is 905 ohms the component is probably OK.
No matter how complex the electronics in an ECU, they will not work without a good power supply and earth.

Sensor to ECU method:
This technique is simple but very useful.
A resistance test being carried out on a component is a direct measure of its resistance.
The same test on the end of the component’s wires at the ECU includes the condition of the circuit.
If the second reading is the same as the first then the circuit must be in good order.
Note: The circuit supply must always be off when carrying out ohmmeter tests.

Back probing connectors:
When testing for a supply (for example) at an ECU, use the probes of the digital meter with care.
Connect to the back of the terminals to avoid damage to the connecting surfaces.
A pin clamped to the test lead is ideal for connecting ‘through’ the insulation of a wire without disconnecting it.

Fault codes:
Most management systems carry out self-diagnostic checks on sensors / actuators connected to the ECU(s).
A fault in one of the components or its associated circuit causes a code to be stored in the ECU memory.
The codes may be described as "fast" or "slow".
Some ECU's produce both types.
An LED, dash warning light, scope or even an analogue voltmeter can be used to read slow codes.
Normally, slow codes are output as a series of flashes interpreted by checking with a fault code table.
Slow codes are normally initiated by shorting two connections on the diagnostic plug.
Then switching on the ignition.

Injection and Engine Management Diagnostics - Generic Procedures

Refer to detailed data before shorting any pins out.
Fast codes can only be read by using a fault code reader or scanner.
All future ECU's will use fast codes.
If a code reader is attached to the serial port on the harness, fast and slow codes can be read from the ECU.
These are displayed in the form of two, three or four digit codes, or if software is used, in text format.

Engine management:
Engine management is a general term that describes the control of engine operation.
This ranges from carburettor for fuel, with contact breakers to control ignition, to complex ECU systems.
The task of an engine management system is to control ignition / fuel, and to refine basic engine control.
This is done by taking in information from sensors and controlling outputs with actuators.

Injection and Engine Management Diagnostics - Generic Testing

Sensors and values (Generic text for information purposes only)

Testing sensors:
Sensors and their associated diagnostic techniques are common to many systems.
Tests on inductive engine speed sensors on a fuel injection system and ABS are the same.
Testing sensors to diagnose faults is usually a matter of measuring their output signal.
In some cases the sensor will produce this on its own (an inductive sensor for example).
In other cases, it is necessary to supply the correct voltage to make it work (Hall sensor for example).
It is normal to check that the circuit is supplying the voltage before testing the sensor output.

Thermistors:
Thermistors are constructed of semiconductor materials.
They change in resistance with a change in temperature.
Most thermistors have a negative temperature coefficient (NTC).
This means the resistance falls as temperature rises.
A resistance check should give readings broadly as follows:

Coolant temperature sensor
Sensor type: Coolant
Equipment: Ohmmeter
Method: Connect the two terminals, or if only one, to earth.
Engine: At (0ºC) - 4500 Ohms
Engine: Cold (20ºC) - 1200 Ohms
Engine: Hot (80ºC) - 200 Ohms

Air inlet temperature sensor
Sensor type: Air intake temperature
Equipment: Ohmmeter
Method: Connect the two terminals, or if only one, to earth.
Engine: At (0ºC) - 4500 Ohms
Engine: Cold (20ºC) - 1200 Ohms
Engine: Hot (80ºC) - 200 Ohms

Ambient air temperature sensor
Sensor type: Ambient temperature
Equipment: Ohmmeter
Method: Connect the two terminals, or if only one, to earth.
Engine: At (0ºC) - 4500 Ohms
Engine: Cold (20ºC) - 1200 Ohms
Engine: Hot (80ºC) - 200 Ohms

Inductive sensors:
Inductive sensors are used mostly for measuring speed and position of a rotating component.
They work on the basic principle of electrical induction.
A changing magnetic flux will induce an electromotive force in a winding.
The output voltage of most inductive type sensors approximates to a sine wave.
The output voltage increases with the speed of rotation.
In the majority of applications, it is the frequency of the signal that is used.

Crankshaft position sensor
Sensor type: Crankshaft speed and position
Equipment: Ohmmeter
Sensor: Disconnected
Method: Resistance test
Readings: 200-400 ohms some vehicles, 800-1200 ohms others

Crankshaft position sensor
Sensor type: Crankshaft speed and position
Equipment: AC voltmeter

Method: AC voltage output
Engine: Cranking
Sine wave output: 5V max.

Camshaft position sensor
Sensor type: Camshaft position
Equipment: Ohmmeter
Method: Resistance test
Sensor: Disconnected
Readings: 200-400 ohms some vehicles, 800-1200 ohms others

Camshaft position sensor
Sensor type: Camshaft position
Equipment: AC voltmeter
Method: AC voltage output
Engine: Cranking
Sine wave output: 5V max.

Hall effect sensors:
Many distributors employ Hall effect sensors.
The output of this sensor is almost a square wave with constant amplitude.
These are used in place of inductive sensors for engine and wheel speed.
The advantage is that measurement of lower (or even zero speed) is possible.
Also the voltage output of the sensors is independent of speed.

Hall sensor
Sensor type: Hall effect
Equipment: DC volt meter
Method: Voltage output measured as the engine / component is rotating slowly.
Result: 0 to 8V as chip is magnetised.

Hall sensor
Sensor type: Hall effect
Equipment: Logic probe
Method: Voltage output measured as the engine / component is rotating slowly.
Result: A logic probe will read high or low as the sensor switches.

Engine speed sensor
Sensor type: Engine speed
Equipment: Logic probe
Method: Voltage output measured as the engine / component is rotating slowly.
Result: A logic probe will read high or low as the sensor switches.

Ignition distributor
Sensor type: Ignition distributor
Equipment: Logic probe
Method: Voltage output measured as the engine / component is rotating slowly.
Result: A logic probe will read high or low as the sensor switches.

Transmission speed sensor
Sensor type: Transmission speed
Equipment: Logic probe
Method: Voltage output measured as the engine / component is rotating slowly.
Result: A logic probe will read high or low as the sensor switches.
Caution: Do NOT use an ohmmeter as this will damage the Hall chip.

Optical sensor:
An optical sensor for rotational position is a relatively simple device.
The optical rotation sensor consists of a phototransistor as a detector and a light emitting diode light source.
The light is focused to a very narrow beam.

The output of the circuit shown will be a square wave.
The frequency is proportional to speed as the beam of light is interrupted by a rotating ‘chopper’ plate.

Ignition distributor sensor (optical)
Sensor type: Ignition distributor (optical)
Equipment: DC voltmeter
Method: The device will normally be supplied with a stabilised voltage.
Check the output wire signal as the device is rotated slowly.
Result: Clear switching between low and high voltage.

Rotational speed sensor (optical)
Sensor type: Rotational speed (optical)
Equipment: DC voltmeter
Method: The device will normally be supplied with a stabilised voltage.
Check the output wire signal as the device is rotated slowly
Result: Clear switching between low and high voltage.

Injection and Engine Management Diagnostics - Generic Equipment

Test equipment (Generic text for information purposes only)

Test lights and analogue meters – Warning!
A test lamp is ideal for tracing faults in a lighting circuit.
It will cause a current to flow, which tests out high resistance connections.
However, it is this same property that will damage delicate electronic circuits.
Do not use it for any circuit that contains an ECU.
An analogue voltmeter can cause enough current to flow to give a false reading and may damage an ECU.
Do not use it for any circuit that contains an ECU.
A digital multimeter is ideal for all forms of testing, most have an internal resistance in excess of 10Mohms.
The current they draw is almost insignificant.
An LED test lamp or a logic probe is also acceptable.

Access trouble codes

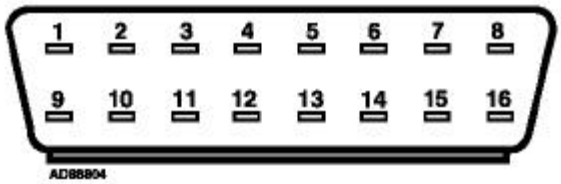
The ECM fault memory can only be checked using suitable diagnostic equipment connected to the data link connector (DLC) Fig. **1** .

Erase trouble codes

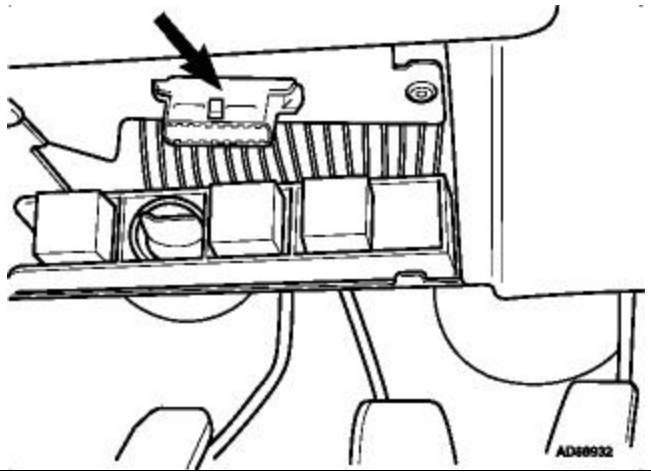
Suitable diagnostic equipment required to erase data from ECM fault memory.

Data link connector (DLC) location - Fig. **2**

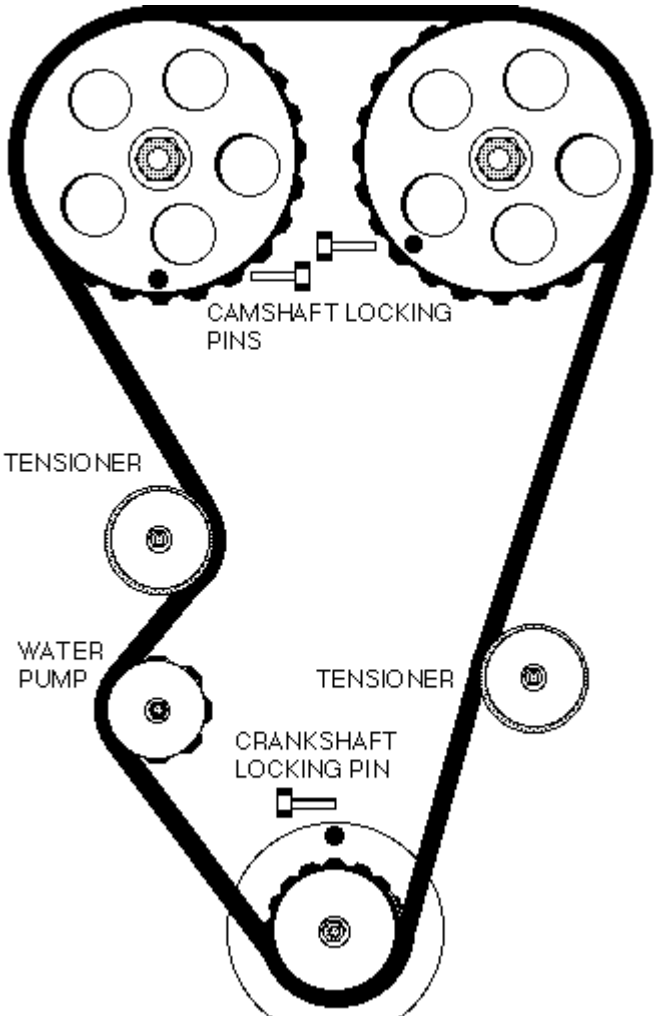
1



2



Timing Belt



Replacement intervals:

Pre 08-98 models

For normal conditions

Replace every 72,000 miles

For adverse conditions

Replace every 54,000 miles

08-98/- models

For normal conditions

Replace every 80,000 miles

For adverse conditions

Replace every 54,000 miles

Engine setting positions:

TDC & locking dowel(s)

Special tools:

Camshaft timing pin(s) Peugeot No 9767.94

Crankshaft timing dowel Peugeot No 9766.98

SEEM tension gauge SEEM C.Tronic 105.5

Torque settings:

Crankshaft pulley bolts 25 Nm

Timing belt tensioner bolt(s) 20 Nm

Timing Belt

Procedure:

Raise & support front of vehicle.

Remove right hand road wheel and inner wing panel.

Remove auxiliary drive belt(s) & tensioner.

Support engine.

Remove engine mounting.

Remove crankshaft pulley bolt(s) (not centre bolt).

Remove crankshaft pulley.

Remove timing belt cover(s).

Rotate engine clockwise until holes align in camshaft gear & crankshaft pulley.

Fit camshaft timing pin.

Fit crankshaft gear timing pin.

Slacken tensioner bolt(s).

Remove timing belt.

Ensure crankshaft & camshaft locking tools are located correctly.

Fit new timing belt starting at crankshaft then water pump, lower tensioner, upper tensioner, R/H

Keep belt taut between the gears.

Apply thumb pressure to the belt at each tensioner to eliminate any play in timing pins.

Fit tension gauge between R/H camshaft & tensioner.

Adjust R/H tensioner against belt until gauge reads 45 SEEM Units

Release tensioner.

Adjust tensioner to give gauge a reading of 22±2 SEEM Units

Tighten tensioner bolt(s) to correct torque.

Adjust L/H tensioner against belt until gauge reads 32±2 SEEM Units

Tighten tensioner bolt(s) to correct torque.

Remove timing pins.

Remove tension gauge.

Turn engine 2 revolutions in direction of rotation.

Fit camshaft timing pin.

Fit crankshaft gear timing pin.

If timing pins cannot be fitted repeat tensioning procedure.

Remove timing pins.

Refit tension gauge.

Gauge should now read 53±2 SEEM Units

Remove tension gauge.

Refit remainder of components in reverse order.

Refit crankshaft pulley and tighten bolt(s) to correct torque.

System description

- Optional driver's and front passenger's airbags.
- 1997 ➡: Optional front side airbags.
- SRS control module mounted separately.
- Front side airbag control module(s) mounted separately.
- Pyrotechnic pretensioners fitted as standard on front seat belts.

Special attention

- To prevent personal injury, expansion area of all airbags MUST remain clear.
- Steering wheel spiral cable has limited rotary movement.
- Centralise steering before disconnecting steering column. To prevent damage, ensure steering wheel and spiral cable DO NOT rotate before or during reassembly.
- 05/98 ➡: Front passenger's airbag can be deactivated using ignition key.
- Manufacturer recommends airbag and pyrotechnic pretensioner replacement every 10 years.
- Pyrotechnic pretensioners are electrically triggered by SRS control module.

SRS warning lamps

Operation

- Switch ignition ON.
- SRS warning lamps illuminate.
- Lamps extinguish after 6 seconds.
- If not: Refer to Self-diagnosis section.
- If front passenger's airbag deactivated: Lamp remains illuminated.
- SRS control module fault memory can only be checked using diagnostic equipment connected to the data link connector (DLC).

Disarm the system

When

- Fascia/instrument panel removal or replacement.
- Front seat belt removal or replacement.
- Front seat repair or replacement.
- Repair work around SRS components, especially airbags and pretensioners.
- SRS component removal or replacement.
- Steering wheel/column repair or replacement.
- Welding operations.

How

- Ensure ignition switched OFF.
- Wait 5 minutes before commencing work.
- Disconnect battery earth lead. Make sure accidental reconnection is not possible.
- Disconnect SRS control module.
- Disconnect front side airbag control modules, if front side airbags fitted.
- No waiting time specified by vehicle manufacturer.

Arm the system

How

- [ ] Ensure ignition switched OFF.
- [ ] Reconnect SRS control module.
- [ ] Reconnect front side airbag control modules, if front side airbags fitted.
- [ ] Reconnect battery earth lead.
- [ ] Ensure driver's door is open.
- [ ] Keep clear of deployment area.
- [ ] Switch ignition ON.
- [ ] Check SRS warning lamp operation.

After deployment

Check

- [ ] All mounting brackets for SRS components.
- [ ] Fascia/instrument panel.
- [ ] Seat assemblies.
- [ ] Seat belts, including buckles and anchorage points.
- [ ] Steering wheel and column.
- [ ] Surrounding components and trims.
- [ ] SRS wiring harness and multi-plugs for charred or damaged areas.

Renew

- [ ] All deployed airbags.
- [ ] Front seat belt buckles.
- [ ] Driver's seat belt.
- [ ] Front passenger's seat belt, if in operation during collision.
- [ ] Seat components, if damaged.
- [ ] Spiral cable.
- [ ] Steering column, if damaged.
- [ ] Steering wheel.
- [ ] Surrounding components and trims, if damaged.
- [ ] SRS control module.
- [ ] Front side airbag control module, if side airbag deployed.
- [ ] SRS wiring harness and multi-plugs, if charred or damaged areas found.
- [ ] Fascia/instrument panel, if front passenger's airbag deployed.

Disposal

- [ ] Vehicle manufacturer suggests that deployed SRS components are sealed in a plastic bag and disposed of in accordance with local regulations.

Steering wheel removal and installation

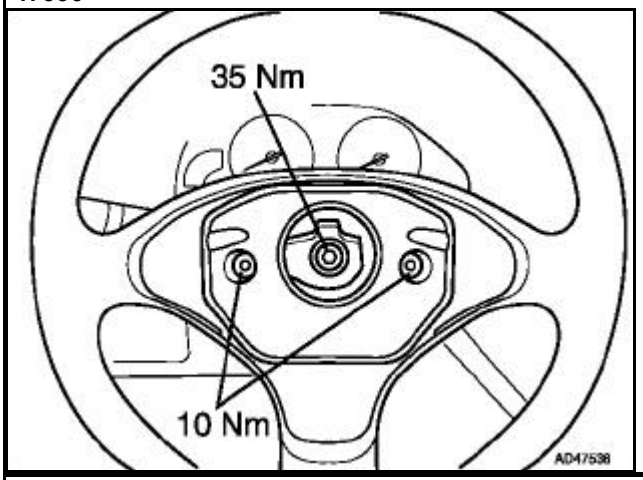
Special attention

- Disarm system and remove driver's airbag.
- Centralise steering before removing steering wheel.
- Spiral cable should not be allowed to rotate once steering wheel removed.
- Ensure spiral cable remains centralised during reassembly.

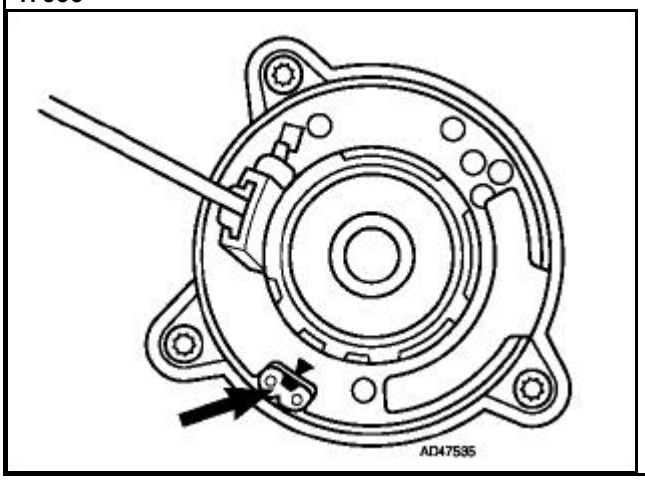
Steering wheel and airbag assembly Fig. **47536**

Spiral cable alignment marks Fig. **47535**

47536



47535



Remote alarm/central locking

System operation

Pressing remote control lock/unlock button Fig. **1** [1] only activates central locking.
Pressing remote control lock/unlock button Fig. **1** [1] then double locking button [2] within 5 seconds activates double locking system and alarm.

Reprogramming

When

Remote control batteries replaced.
System malfunction.
If buttons operated repeatedly while vehicle out of range and system becomes inoperative.

How

Unlock driver's door with ignition key.
Press and hold lock/unlock button Fig. **1** [1]. LED flashing [3].
Wait for 20 seconds then press double locking button Fig. **1** [2].
LED stops flashing.
Release lock/unlock button Fig. **1** [1].
LED remains illuminated.
Press lock/unlock button Fig. **1** [1]. LED goes out.
Enter vehicle.
Hold remote against ignition switch.
Press lock/unlock button Fig. **1** [1].
Switch ignition ON.
Wait 10 seconds.
Switch ignition OFF.
Wait 5 seconds.
Reprogramming procedure complete.
Confirm programming has been successful by locking, double locking and unlocking vehicle.

Battery replacement

Fig. **2**

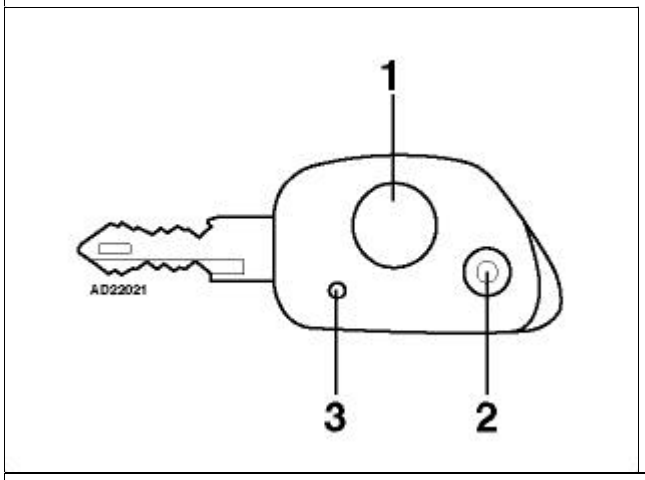
Immobilizer

Reprogramming

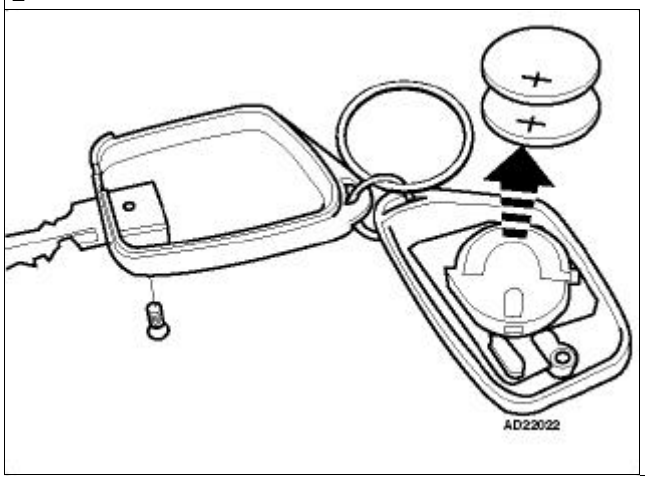
How

Immobilizer can only be programmed using diagnostic equipment.
Replacement or additional keys can only be programmed using diagnostic equipment.

1



2



Engine will not start

- Immobilizer
- Electrical connections - engine/battery
- Ignition system
- Engine management system - connections/wiring/relays
- Condition of fuel/fuel filter
- Fuel pump/connections
- Air intake system/vacuum system - leaks
- Engine coolant temperature (ECT) sensor
- Crankshaft position (CKP) sensor
- Manifold absolute pressure (MAP) sensor
- Idle air control (IAC) valve
- Fuel pressure/delivery rate/fuel pressure regulator
- Injectors
- Engine control module (ECM)

Engine starts then stops

- Engine management system - connections/wiring/relays
- Throttle valve/sticking/linkage/position
- Idle air control (IAC) valve
- Evaporative emission (EVAP) canister purge valve
- Air intake system/vacuum system - leaks
- Engine control module (ECM)
- Intake air temperature (IAT) sensor

Knocking/pinking

- Air intake system/vacuum system - leaks
- Engine management system - connections/wiring/relays
- Crankshaft position (CKP) sensor
- Idle air control (IAC) valve
- Throttle position (TP) sensor
- Engine control module (ECM)

Excessive fuel consumption

- Engine management system - connections/wiring/relays
- Condition of fuel/fuel filter
- Fuel pump/connections
- Fuel pressure/delivery rate/fuel pressure regulator
- Injectors
- Intake air temperature (IAT) sensor
- Throttle position (TP) sensor
- Throttle valve/sticking/linkage/position
- Engine control module (ECM)
- Intake air temperature (IAT) sensor

CO level - too low

- Air intake system/vacuum system - leaks
- Engine management system - connections/wiring/relays
- Engine coolant temperature (ECT) sensor
- Injectors
- Heated oxygen sensor (HO2S)

Overheating

- Air intake system/vacuum system - leaks
- CO level

Smell of petrol

Fuel lines - leaks/damage/blockage
Engine coolant temperature (ECT) sensor

Lack of power - high speed

Engine management system - connections/wiring/relays
Air intake system/vacuum system - leaks
Fuel lines - leaks/damage/blockage
Engine coolant temperature (ECT) sensor

Lack of power - low speed

Engine coolant temperature (ECT) sensor
Condition of fuel/fuel filter
Fuel pump/connections
Fuel pressure/delivery rate/fuel pressure regulator
Injectors
Engine control module (ECM)

CO level - too high

Engine management system - connections/wiring/relays
Air intake system/vacuum system - leaks
Engine coolant temperature (ECT) sensor
Intake air temperature (IAT) sensor
Condition of fuel/fuel filter
Fuel pump/connections
Fuel pressure/delivery rate/fuel pressure regulator
Evaporative emission (EVAP) canister purge valve
Injectors
Heated oxygen sensor (HO2S)

Misfire

Ignition system
Engine management system - connections/wiring/relays
Engine coolant temperature (ECT) sensor
Injectors
Air intake system/vacuum system - leaks
Fuel lines - leaks/damage/blockage

Backfiring

Manifold absolute pressure (MAP) sensor
Engine coolant temperature (ECT) sensor
Throttle position (TP) sensor
Condition of fuel/fuel filter
Fuel pump/connections
Fuel pressure/delivery rate/fuel pressure regulator
Injectors

Frequent stalling/cutting out

Air intake system/vacuum system - leaks
Engine management system - connections/wiring/relays
Idle air control (IAC) valve
Throttle position (TP) sensor
Engine coolant temperature (ECT) sensor

Hesitation/poor acceleration

- Engine management system - connections/wiring/relays
- Crankshaft position (CKP) sensor
- Engine coolant temperature (ECT) sensor
- Engine control module (ECM)
- Intake air temperature (IAT) sensor

Idle speed - too high

- Engine idle speed
- Air intake system/vacuum system - leaks
- Idle air control (IAC) valve
- Evaporative emission (EVAP) canister purge valve
- Engine control module (ECM)

Idle speed - too low

- Engine idle speed
- Throttle position (TP) sensor
- Condition of fuel/fuel filter
- Idle air control (IAC) valve
- Engine control module (ECM)

Erratic idling

- Air intake system/vacuum system - leaks
- Engine management system - connections/wiring/relays
- Fuel pressure/delivery rate/fuel pressure regulator
- Condition of fuel/fuel filter
- Fuel pump/connections
- Idle air control (IAC) valve
- Evaporative emission (EVAP) canister purge valve
- Injectors
- Throttle valve/sticking/linkage/position
- Throttle position (TP) sensor
- Engine control module (ECM)

Poor idling - engine cold

- Air intake system/vacuum system - leaks
- Engine coolant temperature (ECT) sensor
- Idle air control (IAC) valve
- Evaporative emission (EVAP) canister purge valve
- Engine control module (ECM)

Running on

- Manifold absolute pressure (MAP) sensor
- Throttle position (TP) sensor
- Engine coolant temperature (ECT) sensor
- Injectors
- Engine control module (ECM)

AUTO-TECH
Reference Database Application

Wheel Alignment Specifications for:

PEUGEOT 306

1997-01 2.0 Litre N5 GTI6 DOHC

Front Camber (deg):	**-.33**	**+ / - .5**
Front Caster (deg):	**3.33**	**+ / - .5**
Front Toe-In (mm):	**4**	**+ / - 2**
SAI (deg):	**11**	
Included Angle (deg):	**10.67**	**+ / - .5**
TOOT Inside (deg):	**N/A**	
TOOT Outside (deg):	**N/A**	
Rear Camber (deg):	**-1.33**	**+ / - .25**
Rear Toe-In (mm):	**2.5**	**+ / - 1.51**
Thrust Angle (deg):	**0**	**+ / - .15**

Wheel Alignment Specifications for this job:

TECHINICIAN:	

SPECIFICATIONS	**BEFORE**		**AFTER**	
	Left	**Right**	**Left**	**Right**
Front Camber (deg):				
Front Caster (deg):				
Front Toe-In (mm):				
Rear Camber (deg):				
Rear Toe-In (mm):				

Notes:

Your Notes:

Automotive Technical DATA BOOK

Click on one of the buttons above to view data for this car. To return to this screen and make another choice, click anywhere on the data screen.

MENU HELP

Engine and cooling system

306, 2.0i GTI-6 1996 to 1997

Type		XU10J4RS 120kW DOHC 16
Capacity (cm³) / number of cylinders		1998 / 4
Compression ratio / pressure	bar	10.4 /_
Oil pressure	bar	[2.2 to 5.2]
Oil temperature	ºC	80
Valve clearance - inlet	mm	0: Hyd.
Valve clearance - exhaust	mm	0: Hyd.
Firing order		1-3-4-2
No 1 cylinder position		FE
Thermostat opening temperature	ºC	89 to 99
Radiator cap pressure	bar	1.4

Fuel system

306, 2.0i GTI-6 1996 to 1997

Idle speed - manual [auto]	rpm	850±50 N/A
Fast idle speed - manual [auto]	rpm	_
CO @ idle speed [3000 rpm] - see page VI	%	≤0.3
HC @ idle speed [3000 rpm] - see page VI	ppm	≤200
CO2 @ idle speed [3000 rpm] - see page VI	%	≥10.0
O2 @ idle speed [3000 rpm] - see page VI	%	_
Carburettor / fuel injection		Magneti-Marelli
Type / ref		AP 10 SEFI
Main jet / needle		_
Injection pressure	bar	3.0
Pump pressure	bar	2.8 to 3.2
Octane rating	RON	95[U]¹

Ignition system

306, 2.0i GTI-6 1996 to 1997

Type		Direct electronic
Ignition coil		4xBAE01 (1 per cylinder)
Primary resistance	ohms	0.7
Ballast resistor	ohms	_
Voltage - Tmnl 15(+) to earth	V	_
Distributor		_
Points gap (air gap)	mm	_
Dwell angle	º (%)	_
Condenser capacity	µF	_
Rotation		_
Ignition timing - basic [static	º Crankshaft @ rpm	Computer control
V = Vacuum NV = No Vacuum		_
Total ignition advance	º Crankshaft @ rpm	Computer control
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Centrifugal check.	º Crankshaft @ rpm	Computer control
	º Crankshaft @ rpm	_
	º Crankshaft @ rpm	_
Vacuum range check	mbar	Computer control
Maximum vacuum advance	º Crankshaft	_
Spark plugs		Eyquem/Champion
Type		FC62LS3 / C7YCX
Electrode gap	mm	1.20

Electrical system

306, 2.0i GTI-6 1996 to 1997

Battery	V / CC / RC	(12L1 250)
Alternator voltage / full load current / engine rpm		13.8 to 14.8 / _ / 3000
Starter motor current / voltage - cranking	A / V	_
- locked	A / V	_

Running gear

306, 2.0i GTI-6 1996 to 1997

Brakes -		
Front (min. friction material thickness)	mm	1.0
Rear (min. friction material thickness)	mm	_
Tyres		
Saloon	Size	195/55x15
Estate / Van	Size	_
Pressure - front / rear - Saloon	bar	2.3 / 2.3
- Estate / Van	bar	_
Front suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	+1.0±0.5
Camber		-20'±30
Castor		3°20'±30'
King pin inclination		+11°±30'
Rear suspension / wheel alignment		
Toe-in (+) / Toe-out (–)	mm [º]	+2.2±0.75
Camber		-1°20'±15'

Torque wrench settings

306, 2.0i GTI-6 1996 to 1997

Cylinder head - stage 1	Nm	60
- stage 2	Nm	Slacken
Cylinder head - stage 3	Nm	20
- stage 4	Nm	+ 300°
Big-end bearings	Nm	40¹
Main bearings	Nm	70
Clutch cover	Nm	25
Flywheel [driveplate]	Nm	50 LkC
Front hubs	Nm	325
Rear hubs	Nm	185
Wheel nuts / bolts	Nm	85
Spark plugs	Nm	27

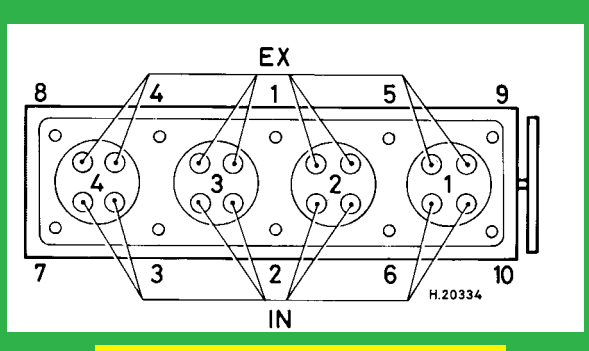
Capacities

306, 2.0i GTI-6 1996 to 1997

Engine oil & filter	litres	4.25
Gearbox - 4-speed [5-speed]	litres	1.8
Automatic transmission - refill	litres	_
Final drive	litres	WT
Cooling system	litres	7.0
Fuel tank	litres	60

Notes and Illustrations

[1]**Engine runs best on 97 RON [U]**



1998 cm³, 16V