



# Qualitat

European Motors Ltd

## VW AUDI SKODA

### SERVICE AND PARTS



#### In brief

**Qualitat** is located at  
220 Station Road, Penrose

Phone (09) 579-3710  
Fax (09) 579-6102  
Email: [info@qualitat.co.nz](mailto:info@qualitat.co.nz)

#### Workshop hours

Mon-Fri 7.30am - 5pm

#### Spares hours

Mon-Fri 7.30am - 5.15  
Sat morning 8.30am - 12.30

#### Check out our website

[www.qualitat.co.nz](http://www.qualitat.co.nz)

Some other websites you  
may like to check out -

[www.vwownersclub.co.nz](http://www.vwownersclub.co.nz)

[www.audi.com](http://www.audi.com)

[www.volkswagen.com](http://www.volkswagen.com)

#### Inside this issue:

Vagn's Reminder	1
Cooling System	2
W.O.F. reminders	3
Newsletters by email.	
Holiday Hours	4

## Importers of Audi / VW / Skoda parts

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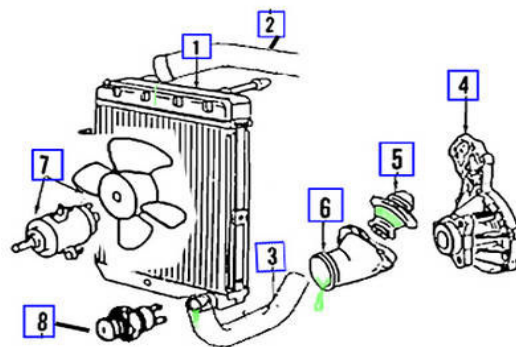
### Vagn's Reminder

#### What's in My Cooling System?



After a very wet winter, at long last summer is here and Christmas is just around the corner. In this issue I would like to go over some relevant 'hot weather' information on vehicle cooling systems (sorry air cooled customers) and air conditioning. If your cooling system has a problem, no matter how small, don't leave it, it will cause a much bigger problem if you leave it.

1. radiator
2. radiator top hose
3. radiator bottom hose
4. water pump
5. thermostat
6. thermostat housing
7. electric cooling fan
8. thermo-time switch



The numbers correspond with the diagram. Below is a definition of each component.

Your cooling system is what keeps your car from having a meltdown. If you didn't have some way to cool things off, your engine would turn into a solid block of useless metal in no time flat. All of the parts that make up the cooling system have the one goal, of moving coolant around the engine so it can absorb and dissipate heat. The basic system is made up of the following -

**Radiator** - The radiator is the most prominent part of the system. Coolant that has travelled through the engine is pumped through the tubes of the radiator, and is cooled off for another round.

**Radiator Hoses** - Your cooling system has a number of rubber hoses that move the fluid from one place to another. These need to be replaced before they become brittle and cracked.

**Water Pump** - The water pump does what you think it does - pumps the coolant through the system. The pump is belt driven, except in the case of some race cars which use an electric water pump.

**Thermostat** - Your engine isn't always the same temperature. When you start it on a cold morning, you want it to get warm quickly. If you stop in traffic, you want it to cool itself off. The thermostat controls the flow of coolant so that it cools down more or less depending on the temperature of the coolant. It rests in a housing, just after the radiator bottom hose.

**Electric Cooling Fan** - Many cars these days have an electric fan for either primary or added cooling. The fan draws air through the radiator when you aren't moving fast enough to get things cooled down.

**Thermo Time Switch** - Also known as the fan switch, this is the temperature sensor that tells the electric fan when to blow.

**QUALTAT**  
EUROPEAN MOTORS LTD

♦ **We are importers  
of parts for**

**Audi  
VW  
Skoda**

♦ **Repairers of all  
vehicles.**

♦ **We have techni-  
cians trained in**

♦ **VW**

♦ **Audi**

♦ **Mercedes**

♦ **BMW**



## Antifreeze is Cool

Your car's radiator and cooling system needs to be clean to be cool. As time goes on, your car's radiator builds solid deposits that can clog the cooling system. A quick, inexpensive radiator flush can keep the system in shape. It's important to change your antifreeze seasonally.

Most people know the pink or green stuff in your radiator keeps your engine from turning into a block of ice in the winter, but did you know that it also helps keep things cool in the summer? All too often people are driving around with just water in their radiator because they think they don't need the green stuff until it gets cold.

Radiator coolant actually raises the boiling point of the water, allowing it to carry more heat away from the engine, and that means cooler running. If you're running low, things can get steamy fast.

Most cars these days have an opaque coolant overflow tank right next to the radiator. It's white plastic, but you can see inside to see if there's enough juice to keep things safe. You'll also see markings on the side telling you the low and high levels to work with. Always check your coolant level when the car is cold.

If your levels are good, no need to go any further, enjoy the peace of mind. But if you're low, you'll need to top it up and book it into Qualitat to see why the level is low.

## Air Conditioning: how A/C works

Any system that lowers temperature operates in similar fashion. First you take a gas, like Freon, and place it in a sealed system. This Freon is then pressurised using a compressor. As it's pressurised, it gets hot by absorbing the heat around it. This hot gas is then circulated through a series of tubes that dissipate the heat. Scientifically, the gas *removes heat* rather than adds cold, but that's a lesson in physics that doesn't really matter to us right now. The gas can lose lots of its heat, in other words it gets really cold, when you reduce the pressure. As it cools it becomes a liquid. This is when you get cold air blowing on your sweaty forehead.

To use this system in a car, it needed very little adaptation from its early applications as a refrigeration device. Since it was discovered that Freon (R-12) was harmful to the earth's Ozone layer, it's been phased out for automotive use, and replaced with the slightly less efficient, but harmless R-134a refrigerant.

### Components of Automotive Air Conditioning

Your air conditioning system is made up of a compressor, a condenser, an evaporator (or drier), refrigeration lines and a couple of sensors here and there.

**Compressor:** This is the heart of your a/c system. The compressor is what takes the refrigerant (the gas) and pressurises it so it will cool the air. It's run by an engine belt. The compressor also has an electrically operated clutch that turns the compressor on and off as you demand more cool air.

**Condenser:** The condenser is like a miniature radiator, usually mounted at the front of the car right next to your big radiator. Sometimes the condenser will have its own electric cooling fan too. The hot, compressed gas passes through the condenser and gets lots cooler. As it cools, it becomes a liquid.

**Evaporator:** The evaporator is another little radiator that does just the opposite task of the condenser. As the super-cool liquid is passed through its tubes, air is forced through and gets really cold, right before it hits your face. As it warms up again, the refrigerant starts turning back into a gas.

**Thermal Expansion Valve:** You don't always want to freeze your toes off, so the a/c system has a valve that controls the flow of super-cool refrigerant to the evaporator. This way you can regulate how cold the air blowing on you gets. There are a few types of valves in use these days, but they all do the same thing.

**Drier or Accumulator:** The drier, also known as the receiver-drier, is sort of the safety catch for your system. The compressor is only supposed to compress the gas form of your refrigerant. However, there's always a chance that some liquid could make it back that far. The drier catches this liquid before it can damage your compressor. Since even the tiniest leak or careless installation can introduce water moisture to the system, the drier absorbs this chemically, using what's called a dessicant (similar to that packet of "DO NOT EAT" that comes with electronics). The drier also has a filter that catches any gunk that might be in there.

## Air Conditioning: how A/C works cont.

That's pretty much the whole story! Different systems also have sensors here and there to tell pressure and temperatures, but they are specific to a make and model of vehicle.

### Dye Test

A dye based air conditioning leakdown test uses a colored dye to find freon leaks in your air conditioning system. Using this test, a colored dye is injected into the a/c system which will be visible under UV (ultra-violet) light at the point of a leak anywhere in the system. The test is performed under full pressure with the air conditioning system closed (sealed as if you were driving under normal conditions).

Qualitat has all the equipment to test your air conditioning and to perform a dye test. Please phone for a booking if you are having problems with your cooling system or air conditioning. The Qualitat workshop will be open over the Christmas/New Year period with limited staff, so bookings are essential. I would also like to remind you that if you need to drop your vehicle off after hours that we have a 'Key Drop' slot on the left side of the main front doors under the fire board.

Lastly, I would like to thank all our workshop customers for their support and custom over 2011 and wish you a Merry Christmas and all the best for 2012.

Happy Holidays from the 'Team' at Qualitat

*Vagn Dyson*

Workshop Manager



It's a Volkswagen - believe it, or not !

This is aimed at the city-slicker market. It has space for just one passenger, and built entirely from aluminium, making it extremely light at around 460kg. It uses an electric motor mounted behind the driver to power the rear wheels. A small lithium-ion battery pack, delivers a driving range of 65km, and is rechargeable from the mains in just two hours. It has a top speed of 130km/h and the zero to 100km/h is reached in less than 11 seconds.

Volkswagen researchers have assessed that 74% of German commuters cover less than 50km a day, and 90 per cent travel to work alone. It may be something that could catch on in many cities.

Parking would be easy.

### Pre-Purchase Vehicle Inspections

**Qualitat** offers a comprehensive pre-purchase inspection service so you can be informed about your next purchase.

Pre -purchase inspection is priced at \$180.00 incl. g.s.t.

### Free W.O.F. check

If you have a **FULL** service when you have a Warrant of Fitness check done you will receive a free WOF check worth \$45.00 plus g.s.t.

Phone (09) 579 3710 now, for an appointment.

### Warrant of Fitness reminders by email:

For customers who would like to receive their **warrant of fitness reminders** by email instead of by post - please contact us on

[office@qualitat.co.nz](mailto:office@qualitat.co.nz)

Please ensure you supply your - **full name**  
**car registration number**  
**email address.**

**Newsletters:** If, in future you would prefer to receive this Newsletter by email, please supply us with your **email address**.

**Email your email address to :** [office@qualitat.co.nz](mailto:office@qualitat.co.nz)

### QUALITAT SERVICING

Getting your vehicle serviced at regular intervals is vital to long life and good performance, not to mention fuel savings. For late model cars, this means every 10,000 km or 12 months. For earlier and aircooled cars, every 6000 miles or 6 months.

***Let us help you enjoy your motoring!***

**QUALITAT**

EUROPEAN MOTORS LTD

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## Our Services

- Audi Parts
- VW Parts
- Volkswagen Parts
- Skoda Parts
- Seat Parts
- Audi Servicing
- VW Servicing
- Volkswagen Servicing
- Skoda Servicing
- Seat Servicing

## Contact us

0800 4VW AUDI  
MTA ASSURED

## Holiday Hours

Our holiday hours are as follows:

Friday 23rd December	8 am - 3 pm
Saturday 24th December to Tuesday 27th December	CLOSED
Wednesday 28th December Parts & Workshop	8 am - 4.30 pm
Thursday 29th December Parts & Workshop	8 am - 4.30 pm
Friday 30th December Parts & Workshop	8 am - 3 pm
Saturday 31st December to Tuesday 3rd January	CLOSED
Wednesday 4th January	Normal hours resume



***MERRY CHRISTMAS***

**To all our customers.**

**We wish you a happy holiday and plenty of safe enjoyable motoring.**

**From Wayne and Josie, and all the Team here at Qualitat, we look forward to seeing you all in the new year.**

***Last, but not least -***

**Watch for our Parts specials on Trademe.**

**Qualitat's Trademe name is  
VWPARTS01 for Air-cooled listings and  
VWPARTS02 for Water-cooled listings.**