

Most Common Asked Questions by Customers, regarding A/C Systems



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Service Questions



1. Why do air conditioning systems need to be serviced?

- Because up to 10% of the refrigerant is lost every year.
- Because, otherwise, the compressor oil supply is no longer guaranteed.
- Because humidity in the system can cause expensive repairs.

In contrast to what some vehicle manufacturers say, vehicle air conditioning systems must be serviced regularly. Every year, up to 10% of the refrigerant is lost from systems naturally through hoses and connection elements. This means that the cooling capacity is noticeably reduced after only three years. In addition, the refrigerant that circulates through the air conditioning system serves as a carrier medium for the oil, which is also in the system. The air conditioning compressor requires this oil as a lubricant. If there is not enough refrigerant in the system, the compressor may no longer be sufficiently lubricated. This can lead to complete compressor failure. The necessary repairs can quickly run up a bill of £700. This can be avoided if the air conditioning system is checked once a year. In addition, the refrigerant absorbs humidity from the outside via the hoses. The drier can trap part of this humidity in the air conditioning system. The saturation point can be reached after two years of operation. If the drier is not replaced regularly, the high water share in the system will lead to corrosion. Increased wear and mechanical damage to the system components are likely to follow. The expansion valve could also ice up. This can lead to considerable problems; possibly complete failure of the air conditioning system. High repair costs can be avoided by replacing the drier regularly.

2. What will an A/C service provide?

- 25-point inspection.
- We Recover/Recycle your refrigerant and measure the amount in your system.
- We recommend the Receiver Drier be replaced.
- We check the system temperature before and after the service.
- We clean your Evaporator and Condenser.
- We evacuate the system to remove any air and moisture.
- We carry out a full leak system check and report.
- We report any findings for further work required as necessary.

3. How often should my A/C system be serviced?

Minimum two-year / 30,000 (each Vehicle MFG has their own recommendations)

4. How can refrigerant escape from the air conditioning system?

Through hoses and system component connections.

A small amount of refrigerant can escape due to 'natural seepage' through the hoses used in the system and the seals of individual system components. This can be up to 10% of the total refrigerant volume per year. A 100% sealed system is not possible due to the requirements placed on the system in vehicle (flexible lines, material selection).



5. How often should I use my system?

- Once a month minimum, or refer to your Handbook as per recommended by the vehicle Mfg guidelines
- Ideally all year round, it will provide you with Clear filtered air while you are driving – a healthier environment.

6. Why will my system have a leak?

Various reasons;

- See page of 'O' Rings at fittings.
- Up to 15% loss per annum (normal- due to under bonnet heat transfer)
- Corrosion of components – salt and acid from the road.
- Stone chips in the Condenser.
- If the system has been empty for some time, acid corrosion will build up from inside the system and create a leak.

7. Will I damage my A/C system if I have no refrigerant in it?

Normally no – as the pressure switch will not allow the Compressor to engage, but we will need to check your system to make sure that nobody has tampered with the switch wiring previously.

8. What is involved in converting my old R12 System to R134a?

- Complete a full system test of the A/C System, including working condenser fans, leak check and general operation.
- Recover the old R12 gas for later reprocessing
- Convert charge couplings to new style R134a.
- Evacuate the System and Add RetroConversion Oil
- Charge with R134a gas
- Complete full system test including leak check.
- Label up converted system showing new charge weight.

9. What is the cost of having my System Recycled and Inspected?

Please contact our Service Department

10. I've heard bad press about Sealants used to repair A/C Systems, How can I protect my Equipment?

Purchase a Quick Detect Sealant Identifier available from Compressortech – Contact our Service Department for pricing.



System Questions (Internal)

11. Every time I turn on my A/C system I am presented with a foul smell, why?

While you're A/C system is operating, condensation builds up and drains off your Evaporator, some of the water gets trapped in the tubes and fining of the Evaporator. It congeals and a build up of bacteria and fungi will grow on the Evaporator causing the 'smell' – it will need a special treatment.

12. The airflow through my vent appears to be weak, why?

We will need to check all the speed settings on your blower, and check your Pollen Filter as it may be blocked.

13. Why should air conditioning systems be disinfected regularly?

Bacteria, fungus and other micro-organisms nesting in the evaporator can create musty smells and provoke allergic reactions

The evaporator is installed below the dashboard and integrated in the ventilation system. The poor accessibility of this location, and the dark and moist environment are an ideal breeding ground for bacteria, fungus and micro-organisms. These originate in particles of dirt in the air, which settle on the fins of the evaporator. These unwelcome bacterial guests make their way in to the vehicle interior through the ventilation system. This causes allergic reactions in many people (sneezing, coughing, streaming eyes). In addition, the micro-organisms cause a musty, unpleasant smell. Regular disinfection of the evaporator destroys micro-organisms permanently. When carried out properly, disinfection will have no harmful effects.

14. What is an Evaporator Treatment – How will it cure the 'smell'?

The Evaporator Treatment will wash your Evaporator unit, cleaning all the bacteria, mildew and fungi growing on the aluminium coil. Cleaning your Evaporator is a season requirement. This is normal. We can offer a 6-9 month cure with the Evaporator Treatment applying a lacquer coating on the aluminium Evaporator coil.

15. Why do my windows mist up? How can I prevent this?

Misting on the windows is nothing more than humidity in the air condensing on them – specific use of the air conditioning system can help here.

In the cold, wet season, the air is generally damp, and we bring more humidity into the vehicle and again our clothes, wet shoes and jackets. Just take a good look at your floor mats! There is often

a pool of water here encouraging even more misting of the windows. This effect is increased further by warm breath. The air conditioning system dries the air in the vehicle interior, clearing the windows quickly. They clear even quicker if the recirculation mode is selected first.



This can be done in next to no time:

- Switch the air conditioning on
- Direct the airflow only onto the windscreen
- Press the recirculation button (where possible)
- Set ventilation and heating to maximum.

- Switch recirculation mode off again after a short time and set ventilation switch to medium level.

Note – models from some Manufacturers switch the air conditioning system off automatically when the outside temperature falls below approximately +4⁰C

16. When should I use my recirculation button & what is it's function?

The recirculation button closes off the heater/evaporator box and stops warm ambient air from entering inside the vehicle allowing the air conditioning system to maximise the interior cooling effect, in turn clean and filter the air.

System Questions (External)

17. I get a clicking sound from the engine bay every time I turn on my A/C system – what is it?

The electronic clutch on your Compressor engaging when you use the A/C system.

18. Why does my engine RPM drop with the A/C switched on?

You will experience a slight drop in RPM with the load of the A/C Compressor engaging – this is normal. Your engine management system will make adjustments to stop the vehicle stalling.

19. When I leave my vehicle, I have noticed the radiator fan running, is this normal?

Some electric fans operate on a timer relay and can run for up to 10 minutes with the engine turned off.

20. Why have I got water under my vehicle when I use my A/C system – is there a leak?

No, it is condensation draining off the Evaporator behind your dashboard.

21. When I operate my A/C system, I notice electric coolant fans appear to cut in and out, is this normal?

Yes – they will operate depending on engine and ambient temperature.



General System Questions

22. Why is it important to use the air conditioning system all year round?

- To clear fogged windows quicker
- For a healthy interior climate
- To make sure the system still works in the spring.

Misted up windows represents a safety risk. When the heating is on together with the air conditioning system, the air is not only warmed but dried, too. This contributes to a healthy climate inside the vehicle. To make sure there is always enough oil in the compressor and that the seals in the system do not dry out, the air conditioning system should be switched on for a few minutes every week even in the winter. This also prevents drivers 'suddenly' discovering in the spring that the air conditioning system no longer works.

23. How can I use my air conditioning system as effectively as possible?

In summer – Park in the shade

Open the doors for a short time before starting your journey.

Set the air conditioning & ventilation to maximum at the start of a journey.

Drive with the windows/sunroof open for the first few minutes.

The interior temperature should not fall below 22⁰C

If possible, park your vehicle in the shade on sunny days. Otherwise the temperature inside the vehicle can rise to up to 60⁰C. To get rid of standing heat in the vehicle, open the doors briefly before starting your journey. To make things pleasantly cool as quickly as possible, we recommend switching the air conditioning to maximum cooling and the fan speed to maximum. The air stream does not have to be directed directly at the passengers. Brief use of the recirculation mode speeds up the cool down. Opening the windows or the sunroof during the first few minutes has the effect of exchanging the air more rapidly, thus cooling the interior quicker. 'Draughts' must be avoided. The interior temperature should not fall below 22⁰C due to health considerations.

In winter – Switch the air conditioning on

Direct the airflow only onto the windscreen

Press the recirculation button (if this is not possible carry on with point 4)

Set ventilation and heating to maximum.

To warm and dry the air and clear the misty windows as quickly as possible, the air conditioning system should be switched on before you begin your journey and the airflow directed at the windscreen. To prevent even more damp air entering the passenger compartment, recirculation mode should be chosen temporarily. We recommend setting fan speed to the highest level and heating to maximum. Recirculation mode must be switched off again after a short time. In most cases the medium level is sufficient once the mist has been cleared from the windows. The air conditioning system can then be switched off.



Note: models from some manufacturers switch the air conditioning system off automatically when the outside temperature falls below approx +4°C. Recirculation mode with the air conditioning system switched on and the airflow directed only at the windscreen is not possible in some vehicles.

24. How much more fuel consumption does the air conditioning system cause?

Increased fuel consumption depends on a number of factors. It can be an increase of up to 10%.

The increased consumption depends on the type of air conditioning system installed, the operating state of the vehicle, outside temperature and driver habits. A further criterion is the care and maintenance state of the air conditioning system. Developments in vehicle construction have made great progress in this area. There are air conditioning systems available with regulated or self-regulating compressors, which do not always run at maximum capacity, depending on the operating state. These days, many air conditioning systems have automatic temperature regulation or fully automatic temperature and ventilation flap control systems. These advanced developments are one significant contribution towards keeping increased consumption as low as possible. In city traffic, increased consumption is somewhat higher than in motorway traffic or driving long stretches over A-roads. At increasing outside temperatures, the air conditioning system has to work at a higher cooling capacity, which in turn of course leads to higher fuel consumption. Those who have the air conditioning system on from start to finish of a journey use more fuel than necessary. Thanks to a 'post cooling effect' the system can be switched off a few miles from the destination. Systems that have been poorly serviced or not serviced at all sometimes cause customers to say, "fuel consumption has increased". If there isn't enough refrigerant in the system, the cooling capacity of the air conditioning can only be achieved by the compressor running longer and more often than usual. Increasing fuel consumption, of course. The use of air conditioning usually increases fuel consumption by 5-10%. This is relative value, however, since vehicles without air conditioning are usually driven with the windows/sunroof open when it is hot outside, increasing air resistance – which causes almost the same increased fuel consumption.

Yes – up to 5% loss in MPG and power. Some vehicles engine management can cope with the extra load the A/C Compressor generates.

25. What is the difference between Climate Control and Air Conditioning?

- Climate Control can be set at 1°C increments and automatically maintains a set programme temperature inside the vehicle.
- Pushbutton A/C systems, the temperature can only be controlled by moving the Hot-Cold slider or knob to mix hot or cold air together.

26. On my Climate Control system, what is the best temperature to set my system to?

Normally 18 - 22°C – simply adjust to suit.

27. Can I have Air Conditioning fitted to my vehicle if it wasn't factory fitted?

Please contact our Service Department for a quote.