



## **Your windshield foggy on the inside – now what**

Most drivers know that you use the defrost position of your HVAC (Heating, Ventilation, Air Conditioning) system to clear the inside of the windshield.

What many don't seem to know is that there is a button or switch for that system that can actually create a film on the inside of the windscreen and other windows – a dangerous film of moisture in the form of either fog or frost, depending on the temperature of the glass.

We have all seen vehicles driving down the road with the side windows steamed or frosted up and drivers frantically rubbing away with their hands or gloves trying to clear a path so they can see.

The problem is the 're-circ' or re-circulate feature, generally depicted by a little pictograph of an arrow turning back on itself, within the outline of a car.

This feature closes off normal entry of outside air into the HVAC system, instead re-circulating air from inside the vehicle to help warm things up more quickly in winter or cool the interior down more quickly in summer.

It can also be used to shut off outside air when driving behind a vehicle emitting noxious fumes or creating a lot of dust.

## **Good new – bad news**

But the very thing "re-circ" is intended to do can lead to visibility problems. Serious problems.

Re-circulate means just that – the air occupants have already breathed is being re-circulated. With each breath, more moisture is added to that air and more oxygen extracted from it.

Things warm up or cool down more quickly without the dilution factor of outside air. But that increasingly moisture-laden re-circulated air, when it comes into contact with glass surfaces that are still colder than the air itself, quickly fogs up the glass.

The cooling effect of the cold glass on the now very high-humidity air causes the moisture in it to condense out – just the way dew forms.

At the same time, the amount of oxygen in the air inside the vehicle is decreased, making it pretty easy to become lethargic and not at your best if you keep driving that way for an extended period, especially if there are several people in the vehicle.

### **Easy to overcome**

Use of the HVAC fan usually helps keep things in control as far as the windshield and rear windows are concerned, unless it is extremely cold, but the side windows can soon become blocked and are much harder to clear if you maintain recirc mode.

The solution is simple, however. Just turn off the recirc control once the vehicle has started to warm up.

HVAC systems have become more sophisticated in recent years and this occurrence has become less of a problem with those that used the air conditioning system to remove moisture.

Some other systems automatically draw in a portion of fresh air to mix with recirculated air.

But when you see a car with the side windows fogged up – yours or someone else's – remind yourself or the other driver to turn off the recirc switch.

One more tip: don't use your hands to clear glass as it often results in oily deposits that only make visibility worse – and stay there until the glass is properly cleaned.