

Product Bulletin

TO: All Valued Beck/Arnley Customers
FROM: Product Management
DATE: October 11, 2010
SUBJECT: Cabin Air Filters (informational bulletin)

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Cabin Air Filters

If a vehicle is less than 10 years old, chances are that it has at least one way to remove contaminants from air entering through the HVAC system. These filters can be located underneath the dash, behind the glove box, or even under the hood in the engine bay. The filters themselves can be as simple as a paper or non-woven fiber material to filter out dust, leaves, and other large particles. They can also be complex and contain activated Carbon materials in multiple layers (Combination filters) to remove particles, odors, and harmful gases as small as individual molecules that can be emitted from other vehicles' exhaust or other sources. Cabin filters provide a valuable service but lose efficiency and can start affecting the rest of the HVAC system the longer they are installed. They should be changed on a regular basis. The filters for most applications can be changed in less than 30 minutes with the use of common work tools or even no tools at all.

Most cabin air filters are particulate filters, which trap large particles that can enter and clog parts of the HVAC system such as the blower motor or the evaporator. These are made of a paper or fiber material, which hold the debris in holes and crevices while allowing air to pass until the filter can be removed and changed. Due to this nature, it is near impossible to clean them thoroughly, even with compressed air, and they should not be reused.

New Clean Filters



Used Filters (15,000 miles)



Combination filters, often called Charcoal or Carbon filters, are growing in use and popularity with many manufacturers and luxury brands. They use a particulate filter for larger particles but also contain a layer of Activated Carbon to filter out odors, harmful gases, soot, and other particles too small to be caught by the particulate filter. Activated Carbon is very porous and one gram of the material can have the surface area of 500 square meters, or about 1/10 the size of a football field. Harmful particles, chemicals, and gases are captured through a process called adsorption, which is similar to static cling but on a microscopic scale and where Activated Carbon's tremendous amount of surface area proves useful. Combination filters provide the best defense against unwanted materials entering a vehicle's cabin.

Cabin air filters can be found in most vehicles under the dashboard or behind the glove box on the passenger side. Once the glove box is unhinged, the process is usually as simple as removing an access panel, replacing the filter(s), and reinstalling the glove box. Another common location is the engine bay where the filter is located inside the cowl between the windshield and the hood. Access covers are usually labeled, easily removed, and replacement is simple. Use care to remove loose dirt and debris from the housing before installing the new filter.



Maintenance can be easily forgotten on these filters as they are out of sight and the vehicle will continue to drive down the road even if the filter is completely clogged. Symptoms of a clogged filter include a musty or stale smell and/or decrease in the volume of air passing through the vents. Replacement should occur every 15,000 to 20,000 miles or sooner if under severe conditions such as areas with large amounts of smog or dust.