MAINTENANCE MATTERS — Beyond the top-off: Coolant maintenance

Coolant: It's one of the most important fluids in your coach, yet it's the one almost everyone takes for granted. Coolant absorbs heat from the engine, engine oil, transmission fluid, air compressor, and on the newer EGR engines, heat from the exhaust gases being re-circulated back into the intake. It is also a lubricant, rust inhibitor and freeze protector. But it is also commonly neglected or, conversely, over-serviced.

The most popular service procedure is to either add water or undiluted coolant to top off coolant level. Yet technicians rarely test their coolant for additives and freezing level protection. Failing to maintain the proper levels of either can create substantial damage to all the components with which the coolant comes in contact. Damage may include freezing, rust and gelling of inhibitors from high concentrations of additives in critical areas like the heat exchanger in the EGR system. Properly maintained coolant will extend the life of the antifreeze and the components it protects.

Why coolants go bad

Engine heating and cooling over time causes coolant additives to degrade and quantity levels to fluctuate, degrading coolant performance and potentially degrading and/or damaging the cooling system. These additives can be restored by replacing the SCA (supplemental coolant additive). Moreover, by performing periodic coolant sampling and testing, the additive levels can be monitored and modified accordingly.

Keeping tabs

Always test the antifreeze solution before and after adding water or antifreeze, using a standard antifreeze tester or a coolant test kit approved by the engine manufacturer. Coolant test kits are available from MCI Service Parts. Kit number CTK5029 includes complete instructions and 30 test strips. Each strip measures freeze point, nitrite and nitrate levels. A color-coded chart profiles the condition of the SCA (supplemental coolant additive) and works with any conventional coolant formulation. A smaller kit, part number CTK5029-4 containing only four test strips, is also available.

Testing procedure

With the coolant slightly warm, fill and empty the tester several times to pre-heat it before making the actual test. Keep testers clean inside and out. Some testers are only accurate at a specific coolant temperature. Others have a conversion for the actual coolant temperature.

As a word of caution, all engine manufacturers have recommendations or requirements for the antifreeze used in their engines. Consult with them to determine what should be used in your coach.

If you have additional questions, consult your MCI Maintenance Manual, or call your friendly MCI pro.

Whenever you are working on your coach, always consult your owner's and/or maintenance manual for full instructions and follow all safety precautions. If you have additional questions that are not addressed in your maintenance manual, consult your nearest MCI service center or call MCI's technical call center.

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