

# CTS-5 Cool Check® 3-Way Water Check Specifications & Instructions

ACU5050 Series



Distributed by:

**Watertest**Systems

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## Test Shop Water to ASTM Water Quality Recommendations

### Introduction

Proper coolant system maintenance requires quality make-up water. All make-up water is corrosive but water with high mineral content cannot be made fit for use. As soft of tap water as possible should be used. Tap water that has been softened by some type of salt or chloride process should not be used.

ASTM Water Quality Recommendation (from D-4985):

- Hardness 170ppm max
- Chlorides 40ppm
- Sulfates 100ppm
- Total Dissolved Solids 340ppm



### Availability

The Acustrip CTS-5 Cool Check® 3-Way Water Check is available in 25 packets of 4 strips each. Additional quantities are available by special order.

Material Data Safety Sheets for our products are available at: [www.acustrip.com/msds.html](http://www.acustrip.com/msds.html)

### Threats to Make-Up Water Quality

**Calcium:** combines in engine coolant to form scale on hot heat exchange surfaces. Scale is an efficient insulator, and the result is localized engine overheating that can cause component failure.

**Magnesium:** Magnesium also can form scale, creating localized overheating and warped engine heads. It is the second of the two components (with calcium) measured to determine the degree of "water hardness". Water that contains calcium and magnesium is defined as "hard"; the concentration of the two chemicals combined determines the level of hardness.

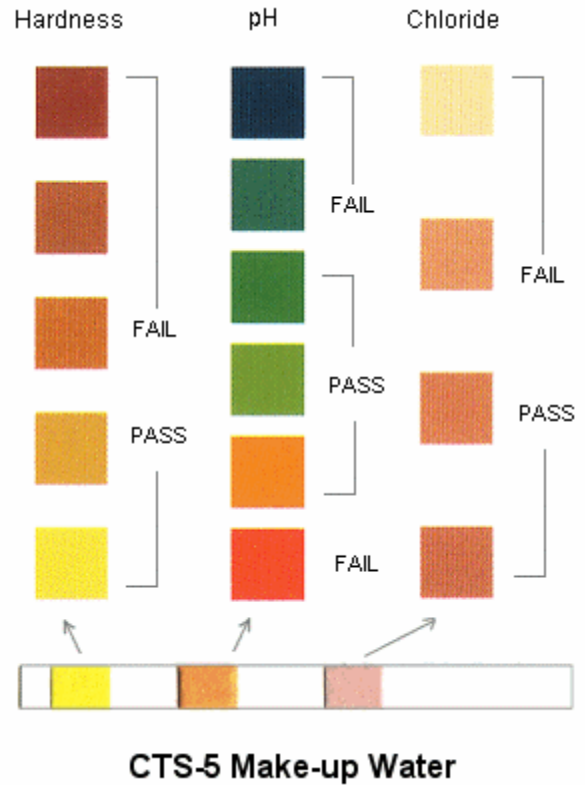
**Silicate:** In water, silicate would be detected as the result of sand, not sodium silicate inhibitor. Sand is frequently found in cooling systems, and is associated with premature wear due to abrasion in various areas of the cooling system.

**Chloride:** Municipal drinking water most often is, in fact, acceptable for engine coolant. A water test can determine the quality of municipal water. Nevertheless, most municipal waters contain chlorine, resulting in the formation of chlorides in the coolant. Chlorides are aggressive to aluminum.

**Oxygen:** Anyone who has tried deionized water knows it tastes nasty. This is due to its lack of oxygen. Oxygen contributes tremendously to metal corrosion and depletion of inhibitors. City water is full of oxygen making it suitable for drinking and keeping pet fish. Water with low oxygen levels is preferable for coolant.

### Procedures

1. Collect a shop water sample in a clean cup (about 8 oz.). Water sample must be between 50° F (10° C) and 130° F (50° C).
2. Remove the strip from the foil sealed packet. Do not touch the pads at the end of the strip.
3. Dip the strip in the water sample for 5 seconds with a gentle back and forth motion, remove and shake strip briskly to remove excess liquid.
4. 25 seconds after dipping the strip, compare and record results in the following order: (a) compare hardness level (end pad) to the color chart, (b) next, compare pH level (middle pad) to the chart, and (c) finally, compare the chloride level to the color chart.
5. All three readings must be completed no later than 35 seconds after dipping the strip.



Dispose of your used test strip with normal paper waste.