

KOOL-IT®

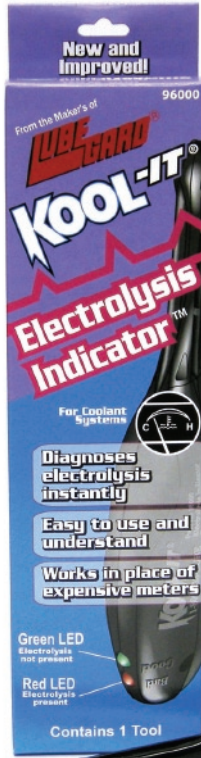
From the Maker's of



New and Improved! Electrolysis Indicator™

and Troubleshooter!

US Patent 7388509



DESCRIPTION:

The patented KOOL-IT® Electrolysis Indicator™ is the easiest solution to visually diagnose destructive excess stray current levels in cooling systems, known as "electrolysis".

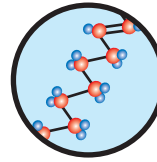
BENEFITS:

- Diagnoses electrolysis instantly
- Works in place of expensive meters
- Place directly in radiator or reservoir if radiator access is limited
- Green indicator light tells you everything is operating normal
- Red indicator light tells you electrolysis is present
- Also use to troubleshoot and find the source of the stray current



#96000

THERE ARE TWO TYPES OF ELECTROLYSIS. KOOL-IT® ADDRESSES BOTH TYPES!



1. The chemical type occurs in all vehicles and is a natural result when coolant (electrolyte solution) flows through a system composed of different types of metals (iron, copper, or brass). The coolant acts as the conductor through which small amounts of current are transferred between metals in the cooling system. Over the passage of time this very small amount of current (less than 0.3 volts) can cause damage to metal surfaces (especially aluminum). Given enough time, the damage will cause a leak to develop. KOOL-IT Supreme Coolant Treatment (P/N: 96001) provides long term protection from the chemical electrolysis damage by forming a passive, non-reactive, molecular surface film that prevents damage to the metal.



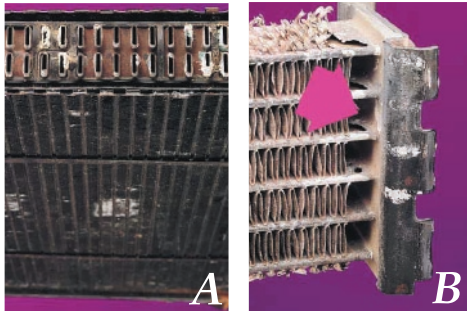
2. The electrical type of electrolysis is much more destructive and is caused by faulty electrical components that deliver stray current (over 0.3 volts) through the cooling system. This may be caused by a faulty ground or a shorted wire near the cooling system. Stray current introduced into a system this

way can be strong enough to cause severe damage very quickly. The only way to prevent damage from this type of electrolysis is to mechanically correct this problem at the source. Thanks to the new Kool-It Electrolysis Indicator finding the stray current has never been easier!

The Kool-It Electrolysis Indicator is the perfect easy to use solution to determine if the electrical type of electrolysis is present!

A. Stray electrical current can cause excessive corrosion of metal components.

B. Stray electrical current can cause an electrochemical reaction that will produce voids in tubes.



Photos courtesy of Modine, Inc © 2004

KOOL-IT® Electrolysis Indicator™ Comparison

	Previous Indicator	NEW & Improved Indicator
Length	3" & could not reach into various GM & some other radiators or reservoirs	New length is 5 ½" to address all issues with reaching.
Batteries	Not user friendly	Now holds batteries in place and much easier to tell how to place them.
Indicator LED's	Used to toggle before reading	Improved reading & now either lights up red or green.
Troubleshooting	Not possible	Now the user can find the source of stray current!

Availability:

Stock No.	Unit Contains	Case Weight/QNTY
96000	1 Tool	4.30 lbs. (12/case)

INSTRUCTIONS FOR TESTING WITH ALL ELECTRICAL LOADS ON

Testing for electrolysis should be initially performed with all the vehicle loads on (headlights, fans, radio, etc.). If this initial test passes with the GREEN LED illuminated no further action is required. If this test fails with the RED LED illuminated repeat the testing procedure with only one load on at a time. If the individual load testing results in a failed test proceed to find and repair the load's source of stray current before testing the remaining loads.

1. Remove the radiator cap from the radiator OR you can also test for electrolysis in the reservoir if the radiator is not accessible by first removing the reservoir cap.

2. CAUTION: Do not remove the radiator cap while the engine is hot.

3. Start Engine (first with all vehicle loads on)
4. Attach the alligator clip at the end of the black wire of the KOOL-IT Electrolysis Indicator to the negative terminal of the battery or to another viable chassis ground.
5. Insert the tip of the KOOL-IT Electrolysis Indicator into the coolant via the radiator or reservoir.

6. CAUTION: Make sure all wires and the KOOL-IT Electrolysis Indicator are clear of all moving engine parts.

7. Upon contact with the coolant the KOOL-IT Electrolysis Indicator will power up with both the RED and GREEN LED's illuminated for three seconds while it determines the amount of electrolysis present.
 - a. After three seconds if the GREEN LED is illuminated the system or specific load wiring is in satisfactory condition with electrolysis below <0.3 volts and no further action is required. Proceed to step 9 if this is the initial test or all electrical loads illuminate the GREEN LED.
 - b. After three seconds, if the RED LED is illuminated the system has electrolysis above >0.3 volts.
8. Action to take if LED is RED. First determine if the coolant is new or old. If the coolant is old, proceed by flushing the coolant system using KOOL-IT Radiator Flush (P/N: 95020) and refill with new coolant. Retest the system. If the LED still illuminates RED and the coolant is in satisfactory condition, the system or specific load wiring is creating unacceptable amounts of electrolysis. Proceed to find and repair the source of stray current by repeating steps 1-7 with only one load on at a time until the LED is GREEN for each individual load.
9. Once the coolant system has acceptable levels of electrolysis as indicated by the KOOL-IT Electrolysis Indicator remove the KOOL-IT Electrolysis Indicator from the coolant & disconnect the alligator clip.
10. Add KOOL-IT Supreme Radiator Treatment (P/N 96001) to protect the system from chemical electrolysis, corrosion and contamination as well as extend the life of the coolant.
11. Replace the radiator or reservoir cap.
12. The KOOL-IT Electrolysis Indicator will power down in three second after removal from the coolant.
13. Rinse the submerged portion of the KOOL-IT Electrolysis Indicator to clean and then store properly.

Action to take:

Green LED (GOOD) - No action is required. Levels of electrolysis are in an acceptable range. Add KOOL-IT Supreme Radiator Treatment (P/N: 96001) to protect the system and extend the life of the coolant.

Red LED (BAD) - First determine if the coolant is new or old. If the coolant is old, proceed by flushing the coolant system using KOOL-IT Radiator Flush (P/N: 95020) and refill with new coolant. Retest the system. If the LED still illuminates RED and the coolant is in satisfactory condition, the system or specific load wiring is creating unacceptable amounts of electrolysis. Proceed to find and repair the source of stray current by repeating steps 1-7 with only one load on at a time until the LED is GREEN for each individual load.



KOOL-IT® Supreme Coolant Treatment (P/N:96001) provides long term protection from the chemical type of electrolysis!

KOOL-IT Supreme Coolant Treatment prevents damage caused by the chemical type of electrolysis by forming a "passive," non-reactive, thick molecular surface film on the metal. This prevents the transfer of electrons, thereby reducing or completely eliminating the metal from conducting current. This prevents metal damage and any potential leaks caused by chemical electrolysis.



Any Questions or Comments?

Please do not hesitate contacting us direct via our

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