

# Universal Combustion Leakage Tester - 33145500

33145500 can be used effectively on both diesel and petrol engines

**WARNING! Please read and understand the instructions below before commencing the test**

## TO CONDUCT THE TEST:

- 1. WARNING! Since the engine will be running during the test, care must be taken to ensure the vehicle cannot be allowed to go into gear accidentally. Take care that your hands and arms stay well clear of engine fan, belts and any other moving items.**
2. Engine should be up to working temperature and coolant circulating (engine idle) during the test.
- 3. WARNING! Hot coolant can cause severe burns. Protect yourself from possible hazards. Wear goggles, heat resistant gloves and outer clothing that will protect you from burns if coolant system fails during test.**
4. Remove radiator cap or header tank cap and check to see that radiator coolant level is low enough to prevent interference with test unit. Either siphon off or drain coolant so that level is 2" to 3" below the neck of the radiator or header tank.
5. Check colour of test fluid, if blue, okay to use. If green or yellow, discard and obtain fresh fluid.
6. Remove plug on cylinder B by gently twisting. Pour standard test fluid from bottle into test instrument through opening in the top. Reinstall top cap by gently twisting.
7. Insert tester onto relevant cap from 33159500 cooling kit or universal cone provided. It is normal for test fluid to transfer from Cyl B to Cyl A.
8. Force radiator gases through test fluid by squeezing bulb. Continue to force radiator gases through test fluid by squeezing bulb for about 1 minute. If fluid turns yellow or green-yellow a combustion leak is present. If fluid remains BLUE, a combustion leak is not occurring while test is in process. If unsure a second test can be carried out using the sensitive fluid which will change colour with a lower percentage presence of CO<sub>2</sub>.
9. Top up coolant and replace system cap where applicable.

## IMPORTANT POINTS

- Always be sure the level of the radiator coolant is 2" to 3" below the neck of the radiator or header tank, otherwise coolant may be drawn into the test instrument itself, contaminating the fluid. Should this occur, remove the test instrument and discard the coolant-test fluid mixture. Rinse unit well with cool, clean water several times, squeeze the aspirator bulb to remove as much excess water as possible and begin the testing process again - after reducing the level of the radiator coolant to the required level.
- Always destroy test fluid which has given a positive test (turned YELLOW). Do not attempt to return test fluid to the bottle after conducting a test which is negative (fluid stays BLUE) - it may carry contamination, which could ruin the entire bottle of fluid.
- Always put the cap back on the bottle of fluid immediately to avoid contaminating the fluid.

## Reaction Fluid:

33193700 - 100ml Standard Reaction Fluid (White Cap)  
33193800 - 100ml Sensitive Reaction Fluid (Black Cap)

33194200 - 250ml Standard Reaction Fluid (White Cap)  
33194400 - 250ml Sensitive Reaction Fluid (Black Cap)



A strong colour change from blue to yellow, using either the standard or sensitive reaction fluid, indicates the presence of carbon dioxide in a vehicle's cooling system.