

## Cooling System & Radiator Cap Pressure Tester K 185

### **Testing of the radiator**

The pressure Cap should not be removed when the Cap or radiator are warm or hot to the touch. The radiator should first be allowed to cool or force cooled by lightly spraying water on the radiator core. When the Cap is cool to the touch and the engine is shut off, use a cloth over the Cap and turn it anti-clockwise 1/4 turn to the filler neck safety stop. Carefully observe for any liquid or steam loss around. The rims of the Cap and from the radiator overflow tube. Let the Cap remain the position till all pressure subsides.

- 1. Carefully remove the Cap from the vehicle. See cautions for removing the Cap as stated above. Check the Cap pressure as marked on the top of the cap. Compare it to the recommended pressure rating of the original equipment Cap for the vehicle.
- 2. Determine, which System Testing Adapter is correct for the system, you are testing; then fasten the adapter onto the radiator.
- 3. Connect Testing Pump Head with the Testing Adapter. Operate Cooling System Pump until the indicator hand of the gauge reaches the recommended pressure level for the vehicle.
- 4. When operating pump, never input air pressure exceed the tolerated upper limit. In general, 30 PS1 is the maximum air pressure for all. (Normally, Most of cooling systems are designed within 15 PS1 to 20 PSI).
- 5. When indicator hand reaches the proper pressure level, stop operating pump and watching the performance of the gauges indicator hand.
  - a. Hand holds steady If indicator hand holds at the same pressure number for 2 minutes, there are no serious leaks in the system.
  - b. Hand drops slowly Indicates the presence of the small leaks or seepage.
  - c. Hand drops quickly Indicates serious leakage is present.
- 6. After the testing process, press the pressure valve till the indicator hand stays at O pressure; then pull up lock-in ring to separate Pump Head from the Testing Adapter.
- 7. Remove the Testing Adapter from the radiator.



- 8. Maintenances After testing process in Radiator Test
  - a. Connect the Pump head with Testing Adapter as actual test manner, operator pump several times to dissipate moisture and/or coolant remained in the adapter and pump set.
  - b. Drop pneumatic oil into the hole of the Hand Pump end to lubricate the piston of Hand Pump.

## 9. Cooling system pump:





## **Description/specification**

- 1. GM 4 Cylinder (Buick, Chevrolet, Oldsmobile, Pontiac, Cadillac)
- 2. Truck
- 3. Benz, Ford, Chrysler, Gm, Jeep, Truck, Peugeot.
- 4. Acura, Dodge, Eagle, Geo, Honda, Isuzu, Lexus, Mazda, Mitsubishi, Suzuki, Toyota, Infiniti, Nissan, Gm (Nova, Spectrum, Sprint), Peugeot, Ford, Chrysler.
- 5. Toyota, Honda, Mitsubishi, Suzuki, Lexus, Chrysler, Acura, Dodge, Geo.
- 6. Buick, Chevrolet, Ford, Lincoln, Gm, Opel, VW, Saab, Benz (ML-class), Jaguar, Rover.
- 7. Jeep, Renault, Saab, Volvo, Audi, Citron, Flat, Peugeot, Alfa, Sterling, Peugeot.
- 8. VW
- 9. Audi (A4, A6, A8), VW (Passat 1997-2002, Golf, Jetta).
- 10. BMW
- 11. VW, Audi
- 12. Ford, Gm, International, Rover, Opel, Jaguar, BMW 245 (BMW up to 1987).
- 13. Mercedes-Benz Sedans With Threaded Neck.
- 14. Saab, Opel

### Testing the pressure cap

- 1. The test process is available to the vehicle without radiator design. To facillate detecting process, it is necessary to determine the pressure cap's type of the vehicle to be tested. In this tester set, there are No.2, No.3, No.4, and No.5 four sorts of Pressure Cap Adapter for application.
- 2. Operation instruction:
  - a. When Cap adapter determined, connect the pressure Cap with Cap adapter; and then chose corresponded system testing adapter to attach at the other end of the Cap adapter.
  - b. Connect cooling system pump with the system testing adapter, then operate pump to input air pressure to the designed level. (In general, 13 PS1 to 20 PSI).
  - c. Watch the indicator hand of the pressure gauge, the movement of indicator hand tells the fact of the testing cap.
- 3. Cap Adapter No. 2-3
- Size #2 is available to pressure Cap of various trucks only. Then the #3 system testing adapter should be used to fit the other end of the Cap adapter.
- Size #3 is available to pressure Cap designed by Benz, Ford, Chrysler, GM and some trucks, etc.), in the same manner, #2 system testing adapter should be used to connect the other end of the Cap adapter.



- 4. Cap Adapter No. 4-5
- Size #4 is available to Acura, Dodge, Honda, Isuzu, Mazda, Mitsubishi, Toyota, Nissan, Ford, etc. Similarly, when testing the pressure Cap of those vehicles, the #5 system testing adapter should be used to attach the other end of the Cap adapter.
- Size #5 is available to Toyota, Honda, Suzuki, Mitsubishi, Chrysler, Acura, Dodge, etc. In the same manner, the #4 system testing adapter is necessary to be used to attach the other end of the Cap adapter.





# Extra device for vehicles which not covered with 14 adapters attached.

A. The extra device is a bonus device to overcome a situation in case those adapters we prepared are out of dimensions to fit a vehicle with rare designation in cooling system. In this case, the useful device will ensure you provide good quality service to your customer.

Caution: Do not apply this device as your routine way to test cooling system of a vehicle. Always wait the coolant at room temperature to avoid possible steam burnt.

#### Composition:

- "T" shape Brass joint. Both ends are designed to fit 318" or 5/16" hose
- One piece of 5/16" hose; one piece of 318" hose
- Two pieces of metal clamp
- B. Disconnect the hose with radiator and main cooling system.
- C. Select either 5/16" or 3/8" hose, which the system applied; and then connect with "T" brass joint with proper size hose with clamp.
- D. Connect T-joint with main cooling system with original hose at the other end with clamp.
- E. To ensure the security of the loop, metal clamps should be used always. Apply the pump head to connect T-joint.
- F. Operate the pump to input air pressure to desired pressure level (10 PS1 to 20 PS1 recommended). The indicator hand will tell you the fact of the cooling system being tested.

