

FJC

Air Conditioning Products
Tools, Equipment & Refrigerant

FJC # 43660 RADIATOR AND RADIATOR CAP PRESSURE TEST KIT



IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NO LIABILITY IS
ACCEPTED FOR INCORRECT USE OF THIS PRODUCT.

1. Testing the radiator

WARNING: DO NOT remove the pressure cap when the cap or radiator is warm or hot to the touch. The radiator should first be allowed to cool, this process can be expedited by spraying a small amount of cool water on the radiator core. Every one pound of pressure present in the system raises the boiling point of the coolant by three degrees Fahrenheit.

1.1 – When the cap is cool to the touch, using a cloth, turn the cap anti-clockwise $\frac{1}{4}$ turn until it reaches 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. Leave the cap in this position until all pressure has been released.

1.2 – Find the correct pressure rating of the original equipment cap for the vehicle being tested.

1.3 – Determine the correct adapter for the system, and carefully fasten the adaptor onto the radiator.

1.4 – Connect the testing pump with the testing adapter, and operate the cooling system pump until the gauge reads the recommended pressure level for the vehicle. **NEVER** exceed the tolerated air pressure for the system being tested, most cooling systems are designed to operate within 15 – 20 PSI.

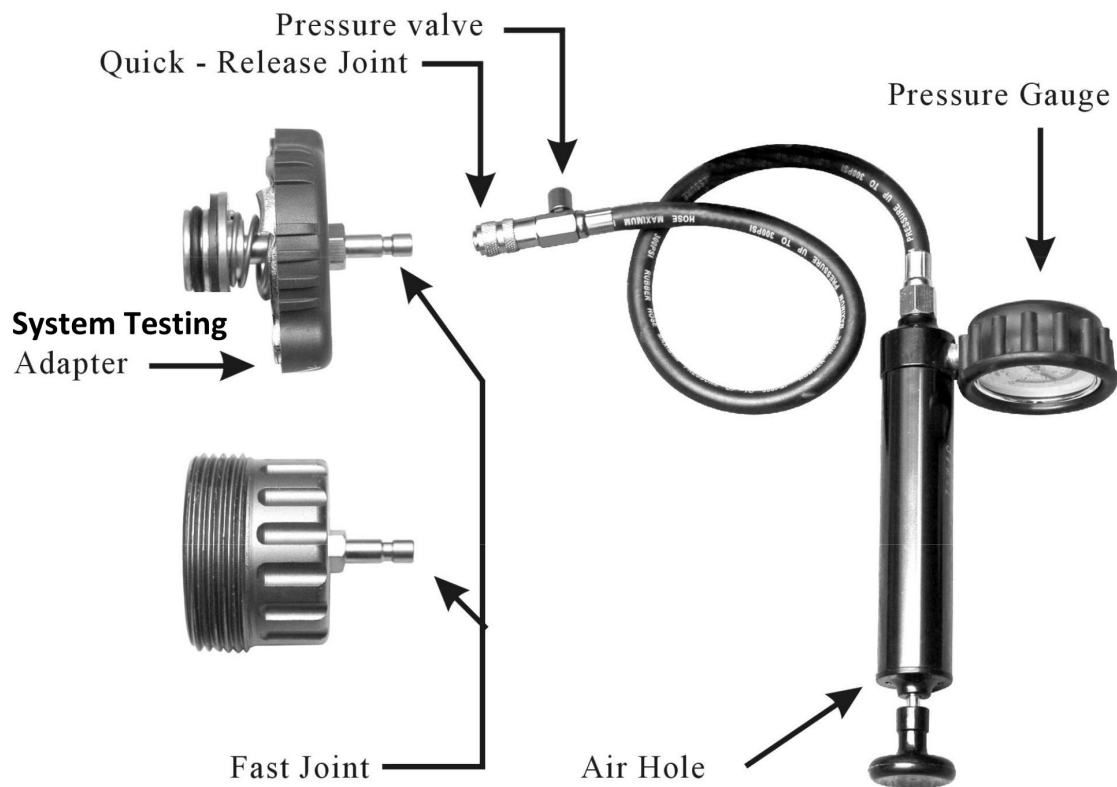
1.5 – When the gauge reads the recommended pressure level, stop pumping and observe the gauge. Use the following guide to determine the state of the cooling system:

Gauge holds steady: If gauge remains the same for 2 minutes, there are no problems or leaks within the system.

Gauge drops slowly: A small leak or seepage is present within the system, further investigation may be required.

Gauge drops rapidly: A serious leak is present within the system.

1.6 – When testing is finished, press and hold the pressure valve until the hands of the gauge returns to zero and remains there. Pull up the locking ring on the pump head away from the testing adapter.



2. Suitable vehicles/parts list.

Below is a list of the parts contained within this set, and the vehicle manufacturers this product is suitable for.

No.1: GM 4 Cylinder (Buick, Chevrolet, Oldsmobile, Pontic & Cadillac).

No.2: Truck

No.3: Mercedes-Benz, Ford, Chrysler, GM, Jeep, Truck & Peugeot.

No.4: Acura, Dodge, Eagle, Geo, Honda, Isuzu, Lexus, Mazda, Mitsubishi, Suzuki, Toyota, Infiniti, Nissan, GM (Nova, Spectrum & Sprint), Peugeot, Ford & Chrysler.

No.5: Toyota, Honda Mitsubishi, Suzuki, Lexus, Chrysler, Acura, Dodge & Geo.

No.6: Buick, Chevrolet, Ford, Lincoln, GM, Opel, VW & SAAB, Mercedes-Benz (ML-Class), Jaguar & Rover.

No.7: Jeep, Renault, SAAB, Volvo, Audi, Citroen, Fiat, Peugeot, Alfa, Sterling & Peugeot.

No.8: VW

No.9: Audi (A4,A6 & A8), VW (Passat 1997 – 2002, Golf & Jetta)

No.10: BMW

No.11: VW & Audi

No.12: Ford, GM, International, Rover, Opel, Jaguar & BMW.

No.13: Mercedes-Benz sedans with threaded neck

No.14: SAAB & Opel.

Other parts:

- 2" & 3" Cap adapter (For testing the pressure cap)
- 4" & 5" Cap adapter (For testing the pressure cap)
- Cooling system pump
- T-shape joint – 5-16" & 3/8"
- Oil Hose – 5/16" & 3/8"
- 2 x Hose clamp

3. Testing the Pressure cap

3.1 – This process will test the radiator cap on a vehicle. Heat cycling of the seal hardens the rubber, and split seals are a common source of leaks. Damaged seals require replacement of the radiator cap.

3.2 - Determine the correct cap adapter for the vehicle, **these are usually No.2, No.3, No.4 & No.5 in the set.**

3.3 – When the correct adapter has been found, connect the pressure cap with the cap adapter, then choose the correct system testing adapter to attach at the other end. Connect the cooling system pump with the system testing adaptor, then operate the pump to input pressure to the correct PSI (usually 13 – 20PSI).

3.4 – Watch the indicator on the pressure gauge closely. The movement of the hand indicates the condition of the radiator cap and its seals:

Gauge holds steady: If gauge remains the same for 2 minutes, there are no problems or leaks within the radiator cap.

Gauge drops slowly: The pressure cap has small leak or a damaged seal, further investigation may be required.

Gauge drops rapidly: There is a leak or damaged seal within the radiator cap, consider replacing the pressure cap.

3.5 – Cap adapter No.2 is for testing various trucks. The No.3 adapter will fit on the other end of the cap adapter when a truck is being tested (No.3 is also suitable for Mercedes-Benz, Ford, Chrysler, GM, Jeep, Peugeot).

3.6 – When cap No.4 is used to test Acura, Dodge, Eagle, Geo, Honda, Isuzu, Lexus, Mazda etc, the No.5 system testing adapter should be used to attach the other end of the cap adapter.

3.7 -. When cap No.5 is used to test Toyota, Honda Mitsubishi, Suzuki, Lexus, Chrysler, Acura etc , the No.4 system testing adapter should be used to attach the other end of the cap adapter.



4. Vehicles not covered with any of the 14 adapters in this set

4.1 – This extra piece is designed for a situation where none of the caps included in this set will fit the vehicle in question, due to an unusual cooling system.

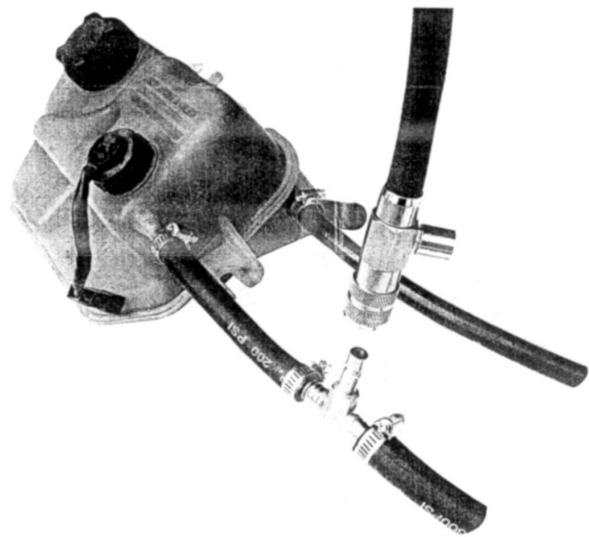
WARNING: DO NOT use this method as the usual way to test the cooling system. This method should **ONLY** be used in circumstances where none of the available caps will fit onto the cooling system. Always wait until the coolant is at room temperature to avoid any injuries or steam burns.

Parts:

- T-shape brass joint – both ends are designed to fit 3/8" or 5/16"/
- 1 x 5/16" hose
- 1 x 3/8" hose
- 2 x metal clamps

4.2 – Disconnect the hose joining the radiator and the cooling system. Select either the 5/16" hose or the 3/8" hose depending on the requirements for the system, and connect with the brass T- joint with the main cooling system (as illustrated), securing it tightly with the hose clamps.

4.3 – Connect the pump head to the T-joint and operate the pump to input air pressure to correct level (usually 10 to 20 PSI). The indicator hand on the gauge will again indicate the condition of the system, please refer to the earlier guide(s) for information.



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