



CHARGE AIR COOLER TEST KIT

WHY TEST?

Here's the 1-2-3 Answer...

#1: Leaking charge air coolers leak away turbo boost. Low or no boost means MPG loss and horsepower loss.

$\$/\text{Gallon} \times 600$ (Gallons saved per year when finding a leak)

= \$ Savings per Year*



#2: The test is easy. In most cases you can test the charge air cooler without removing it from the truck. If it doesn't leak, all you are out is the cost of the test. If it does leak, fix or replace the charge air cooler and your customer can save hundreds of dollars every year with the fuel savings, plus their power is renewed!

#3: "But I thought a little charge air cooler leak was OK?"

So how much is a little leak? Think of your charge air cooler as a water faucet—a drip every once in a while is OK. But drip, drip, drip means a big water bill, or in our case, a loss of fuel mileage and power. A technician can tell you the specification, but if you don't test you won't know.

So test and save, it's that EASY!



RW0090-11
CAC Test Kit

* Using average base assumptions, Average daily trip of 300 miles per day

Northern RADIATOR CHARGE AIR COOLER TEST KIT



RW0090-11

(Showing a properly mounted V-clamp just below the hose bead.)

According to most OEM specifications, charge air coolers that show a pressure drop greater than 5 PSI within 15 seconds when pressurized at 30 PSI, should be replaced. Northern's CAC test kit provides you with the tools to safely and effectively determine whether any CAC passes or fails the manufacturer's specifications.

CHARGE AIR COOLER LEAK TESTING OEM RATE SPECIFICATIONS:

Caterpillar	5 psi in 15 seconds @ 30 psi
Cummins (ISB, ISC, N14)	7 psi in 15 seconds @ 30 psi
Cummins (ISX, M11)	5 psi in 15 seconds @ 30 psi
Detroit Diesel	5 psi in 30 seconds @ 25 psi
Dodge	7 psi in 15 seconds @ 30 psi
Ford	1.5 psi in 60 seconds @ 28 psi
International	5 psi in 15 seconds @ 30 psi
GMC/Chevy	5 psi in 15 seconds @ 30 psi
Mack	5 psi in 15 seconds @ 30 psi
Mercedes	5 psi in 15 seconds @ 25 psi
PACCAR	5 psi in 15 seconds @ 30 psi
Volvo	7 psi in 15 seconds @ 30 psi

Note: charge air coolers are not designed to be 100% air tight or leak free.



SCAN ME TO WATCH THE VIDEO!
Learn More about Northern's CAC Test Kit

INSTRUCTIONS ON USING CAC TEST KIT:

1. Position tester over inlet and outlet of charge air cooler.
2. V-Clamp should be positioned below hose bead and tension nuts should be finger tight plus 1 turn.
3. If no hose bead exists, then position V-Clamp 1" below inlet/outlet and tighten tension nuts finger tight plus 1 turn.
4. Center seal plate over inlet/outlet and tighten seal plate nuts to 5 ft. lbs. of torque.
5. Back off air regulator by turning adjusting knob counter clockwise and close inlet valve.
6. Attach air supply and slowly open inlet valve.
7. Adjust regulation by turning knob clockwise to 30 PSI as indicated on pressure gauge.
(The safety pop-it valve releases at 35 PSI should over pressurization occur.)
8. Close the inlet valve.
9. Observe pressure gauge.
10. See chart for acceptable pressure drop per engine.
11. Disconnect air supply and open inlet valve to release all pressure before removing tester assemblies.

Note: If your testing procedure requires total submersion of the cooler and tester assembly, we recommend the regulator gauge be mounted remotely, above the surface of the water.