



28-PIECE COOLING SYSTEM PRESSURE TESTER AND VACUUM REFILL KIT

OWNER'S MANUAL & SAFETY INSTRUCTIONS

SKU: MMTL-CPT-28

IMPORTANT SAFETY INFORMATION

- » Use caution when opening the cooling system. The cooling system may be under pressure and hot coolant may spray out.
- » To prevent injury, do not open the cap of a hot or warm radiator or coolant tank.
- » Always release pressure before attempting to remove the pump or adapters.
- » Take care when working on running engines. Loose or baggy clothing can be caught in rotating engine parts.
- » Always consult your vehicle's service manual for any vehicle-specific radiator pressure testing instructions first.

1. COOLING SYSTEM LEAKAGE TEST

- 1.1 Slowly and carefully remove the cap from the radiator or coolant tank (*never remove the cap of a hot radiator*).
- 1.2 Select the appropriate adapter cap and connect it to the fill neck of either the radiator or coolant tank.
- 1.3 Connect the hand pump to the adapter via the quick connect fitting.
- 1.4 Pump the hand pump until a pressure of 10-15 psi is reached. A general guideline is to pressurize the system to just under what the vehicle's radiator cap is rated for.

CAUTION: AVOID A PRESSURE OF 35 PSI OR MORE

- 1.5 Let the system sit for a few minutes, then check the pressure gauge. If the pressure has dropped or there is noticeable fluid loss, then there is a leak in the cooling system.

2. RADIATOR CAP LEAKAGE TEST

- 2.1 Slowly and carefully remove the original radiator cap (*never remove the cap of a hot radiator*).
- 2.2 Choose the appropriate radiator cap test connector (R123/124 Black or R123/125 Blue) and connect it to the radiator cap.
- 2.3 Connect an appropriate steel cap to the other end, then connect the hand pump to the steel cap via the quick connect fitting.
- 2.4 Pump the hand pump a few times to pressurize.
- 2.5 Let the system sit for a few minutes, then check the pressure gauge. If the pressure drops, the cap has a leak. Do not exceed the pressure rating of your radiator cap as this can provide a false test result or damage your cap.

3. FILL COOLING SYSTEM

- 3.1 Open the hood and attach the vacuum pump to the hood via the included chain and hook.
- 3.2 Slowly and carefully remove the cap from the radiator or coolant tank (*never remove the cap of a hot radiator*). Drain the coolant entirely into a suitable container. This procedure can be found in the vehicle's service manual.
- 3.3 Select the appropriate adapter cap and connect it to the fill neck of either the radiator or coolant tank.
- 3.4 Connect the blue hose from the filling unit to the selected adapter via the quick disconnect fitting.
- 3.5 Be sure the top valve is set to "Open," and the bottom valve is set to "Closed."
- 3.6 Connect an air line to the quick connect fitting on the bottom left. Once all connections are made, open the air supply valve to begin the process. The system will begin to draw a vacuum.
- 3.7 Switch the top valve to "closed" once the pressure reaches -20 to -25 inHG (-50 to -60smHG).

3. FILL COOLING SYSTEM CONTINUED

- 3.8 Connect the clear coolant hose to the bottom of the pump via quick connect fitting and put the other end into a container filled with coolant.
- 3.9 Ensure the coolant line is full before filling the system. This can be achieved by slowly opening the top valve slightly to draw coolant into the tube, then closing the top valve when coolant reaches the top of the tube.
- 3.10 Open the bottom valve to begin filling the cooling system from the coolant container. It is imperative the end of the hose be submerged in coolant during the entire filling process. If the hose is removed from the coolant, it will allow air to be drawn into the system. If this occurs, close the coolant line valve, re-draw vacuum on the system, submerge the coolant line, then resume the filling process.
- 3.11 If the pressure indicator has dropped to "0", the cooling system should be sufficiently filled. Otherwise, repeat the process.

PART NUMBER	SIZE	DESCRIPTION
1	N/A	Hand Pump with Gauge
2	N/A	Adapter Cap Wrench
3	2"	Buick, Chrysler, Chevrolet, Dodge, Jeep, Mercedes-Benz, Oldsmobile, Pontiac
4	1.5" Shallow	Acura, Chevrolet, Dodge, Honda, Lexus, Mercedes-Benz (M-Class), Mitsubishi, Suzuki, Toyota
5	1.5" Deep	Acura, Chevrolet, Chrysler, Dodge, Eagle, Ford, GM, Honda, Hyundai, Infiniti, Isuzu, Kia, Lexus, Mazda, Mercedes-Benz, Mercury, Mitsubishi, Nissan, Subaru, Suzuki, Toyota
6	2"-11 Female Threads	Cadillac, Daewoo, Ford, GM, Jaguar, Jeep, Land Rover, Mercedes-Benz, Mercury, Pontiac, Porsche Saab, Saturn, Suzuki
7	45MMx2.5 Female Threads	Jeep, Land Rover, Mini, Saab, Sterling, Volvo
8	57MMx3.0 Male Threads	VW (Jetta, EuroVan, Passat, Beetle, Golf)
9	2 1/2" -9 Male Threads	Audi, BMW, Porsche (Cayenne), VW
10	50MMx4.0 Female Threads	BMW, Land Rover
11	48MMx3.0 Female Threads	Audi (1975-1993), VW (1975-1993), Porsche (924, Boxster)
12	50MMx3.0 Female Threads	Ford, Land Rover, Mazda, Saab
13	60MMx5.0 Female Threads	Chrysler (Crossfire), Mercedes-Benz (C, E, G, S-Class)
14	52MMx3.0 Female Threads	Ford (Focus, Contour, C-Max), Mercury (Cougar, Mystique)
15	48MMx2.5 Female Threads	Ford (Ranger), Land Rover, Mazda, Volvo
16	43MMx2.5 Female Threads	Mercedes-Benz (A-Class)
17	2" -8 Female Threads	BMW
18	48MMx3.0 Female Threads	Ford (Galaxy), SEAT (Alhambra), VW (Sharan)
19	1 5/16" -9 Male Threads	Lexus, Scion (XB, TC), Toyota
20	46.5MMx3.0 Female Threads	Saab (9-3, 9-3X, 9-5)
21	52MMx3.0 Female Threads	Buick, Cadillac, Chevrolet, Ford, GMC, Hummer (H2, H3), Isuzu, Lincoln, Mazda (6), Mercury, Oldsmobile, Pontiac, Saab, Saturn, Suzuki (XL-7)
22	45MMx3.0 Female Threads	BMW, Land Rover (Discovery, Range Rover), Mini
23	N/A	Universal Adapter (Min 15mm, Max 45mm, Length 75mm)
24	N/A	Radiator Cap Test Connector R123/R124 (Black)
25	N/A	Thermometer
26	N/A	Radiator Cap Test Connector R123/R125 (Blue)
27	N/A	Filling Unit
28	N/A	Coolant Intake Hose
29	N/A	Airflow Redirect Hose
30	N/A	Threaded Quick-Connect Fitting

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MAINTENANCE AND STORAGE

- » Attach the test adapter to the hand pump via the quick connector, then press the pump a few times to expel any remaining coolant from the adapter.
- » To lubricate the hand pump piston, use pneumatic oil in the air hole located at the end of the pump.

IMPORTANT NOTE

- » These instructions do not replace the vehicle's service literature. You may find additional information in the vehicle's service literature. For all tests, vehicle-specific data should be present. Without this data, adequate results cannot be ensured.

WARRANTY INFORMATION

- > All claims must be accompanied with a picture of the Mishimoto product showing the issue for which the claim is being submitted.
- > Mishimoto asks that the customer inspect their purchased item for any damage immediately upon arrival.
- > Any product deemed dead on arrival (DOA) must be claimed within 14 business days of delivery. Claims outside of this time frame will not be covered under the Mishimoto Lifetime Warranty.
- > This warranty does not include payment and/or reimbursement of the cost of labor in connection with the removal of any product returned pursuant to the warranty policy or in connection with the installation of any replacement items provided under the warranty policy.
- > Mishimoto has the right to refuse a claim at any time.
- > When Mishimoto accepts a claim, Mishimoto retains full discretion to choose if it will: (i) repair or replace purchaser's original Mishimoto product; (ii) replace purchaser's original Mishimoto product with the most current available model; or (iii) provide the purchaser with a gift card redeemable on [Mishimoto.com](https://www.mishimoto.com) in the amount of the original purchase price of the original Mishimoto product. The provision of a replacement of a Mishimoto product is subject to availability and Borne Off-Road retains the right to substitute any warranty claim item with a comparable item or credit at any time.
- > If Mishimoto determines that it will provide a replacement item in connection with a claim under this warranty policy, and such item is out of stock, Mishimoto will place the customer on backorder and ship the replacement product to the purchaser once it becomes available.
- > Mishimoto is not liable for incorrect shipments in connection with a claim if a claim form is completed incorrectly, or if a model number is not included in a claim.
- > If you have a vehicle equipped with an automatic transmission, please make sure to specify this within the text box on the claim form. Mishimoto is not responsible for incorrect replacement shipments if transmission type is not indicated.

RESOURCES & CONTACT



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