

# COOLING SYSTEM PRESSURE TEST AND VACUUM-TYPE COOLANT REFILL SET



**1. FEATURES**

**2. SPECIFICATIONS**

**3. INSTRUCTIONS**

**4. APPLICATIONS**

# 1. FEATURES

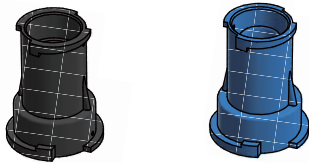
- Pressure pump to test leaks in cooling system
- Provided with 3 twist-on type and 16 threaded type adapters, covering almost all types of car makes and models on the market
- Vacuum-type coolant refill tool has large internal passages to allow coolant to be refilled fast
- Radiator cap test tubes (black and blue) to test if the radiator cap from the car has leaks
- Coolant hose and drain hose are made of cold-resistant material

# 2. SPECIFICATIONS



## PRESSURE PUMP

<b>Gauge Reading</b>	0-2.5 kg/cm <sup>2</sup> / 0-35 psi
<b>Hose Length</b>	550 mm / 21.65 inches
<b>Gauge Tilt Angle</b>	45°
<b>Tube Surface</b>	Anodizing



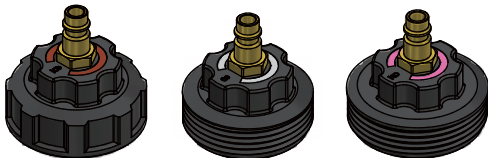
## RADIATOR CAP TEST TUBES

<b>Material</b>	Nylon 6-6
<b>Tester Size (Black)</b>	For R123 and R124
<b>Tester Size (Blue)</b>	For R123 and R125



## TWIST-ON TYPE ADAPTERS

<b>Cap Numbers</b>	No. 3, 4, and 5
<b>Fit to</b>	Radiator filler necks
<b>Cover Material</b>	Nylon 6-6
<b>Cover Function</b>	Reduce heat transfer



## THREADED TYPE ADAPTERS

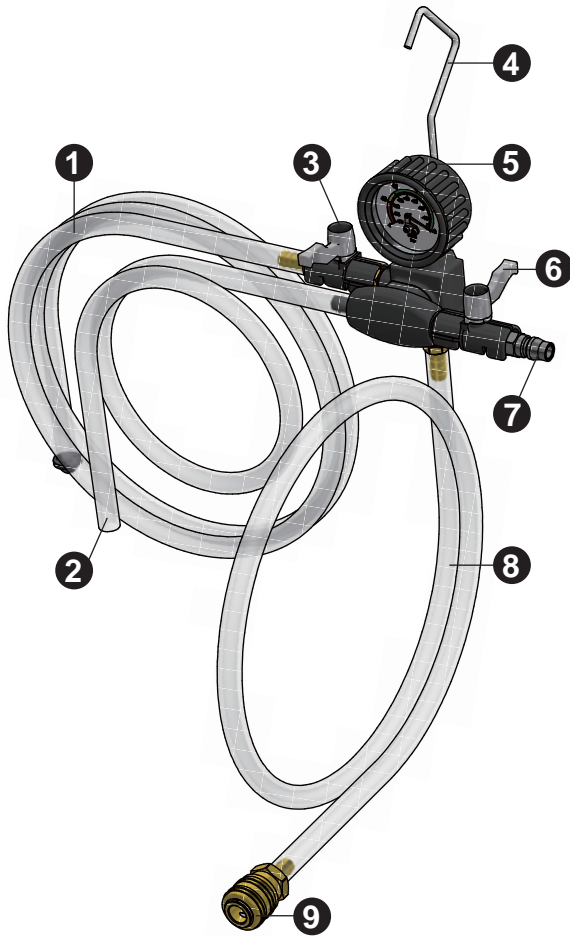
<b>Cap Numbers</b>	No. 6, 7, 8, 9, 0, A, B, C, E, F, G, H, M, S, T, and X
<b>Fit to</b>	Recovery tank filler necks
<b>Cover Material</b>	Nylon 6-6



## THERMOMETER

<b>Temperature Range</b>	-50 - 150°C
<b>Temperature Range</b>	-50 - 300°F

## VACUUM-TYPE COOLANT REFILL TOOL



1	Coolant suction hose	1,500 mm / 4.9 ft
2	Drain hose	600 mm / 2 ft
3	Coolant valve	
4	Hook	
5	Gauge	-1 - 0 bar / -76 - 0 cmHg
6	Air valve	
7	Air compressor connector	
8	Coolant refill hose	700 mm / 2.3 ft
9	Hose connector to adapters	

## OTHER TOOLS REQUIRED BUT NOT INCLUDED



Air compressor



Container with premixed coolant at adequate volume

## CONICAL ADAPTER

<b>Size Range</b>	16-43 mm / 0.63-1.69 inches
<b>Material</b>	Rubber



## WRENCH FOR THREADED TYPE ADAPTERS

For fastening and unfastening adapters

## 3. INSTRUCTIONS



**CAUTION**



- Always read the instructions carefully before using the tool
- This tool set is designed for repair and maintenance on automotive cooling systems only
- Make sure coolant temperature is at room temperature before working
- Ensure the working area has adequate lighting
- Keep children and unauthorized persons away from the working area
- Keep working area clean and tidy, dry and free from unrelated materials
- DO NOT allow untrained persons to use this tool kit
- Always wear eye protection that meets OSHA and ANSI Z87.1 standards
- Always wear gloves when working with the tool
- Always wear ear protection
- Disposal: Customers should follow local regulations to handle used/waste parts

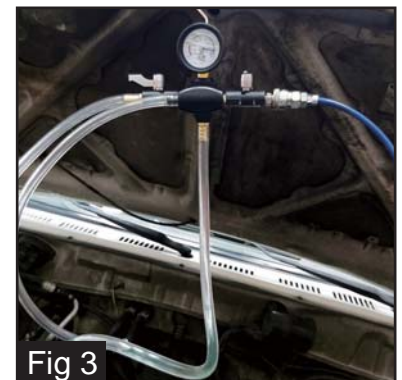
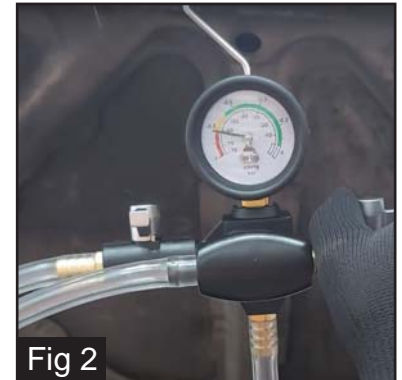
## COOLING SYSTEM LEAK TEST

- 1 Remove the original cap
- 2 Choose a suitable adapter
- 3 Connect the adapter and the pressure pump
- 4 Pump pressure to 10-15 psi (Fig 1)
- 5 Rest for at least 15 minutes
- 6 Check to see if the pointer on the gauge falls.  
If it falls, there are leaks in the cooling system



## VACUUM-TYPE COOLANT REFILL

- 1 Jack up the car and drain old coolant
- 2 Choose a suitable adapter or the conical adapter
- 3 Hang the tool under the hood
- 4 Connect the adapter to the cooling system, and connect the tool's coolant hose
- 5 Put the hose with filter in the premixed coolant, and remain submerged under the surface the whole time
- 6 Make sure all valves are closed and connect to air compressor
- 7 Open the air valve and vacuum can be created (Fig 2)
- 8 When no more vacuum can be created, turn off the air valve
- 9 Open the coolant valve, and the coolant will be introduced to the cooling system automatically (Fig 3)
- 10 Verify the coolant level, connect the original cap.  
Fast refill and no air bleeding.



## RADIATOR CAP LEAK TEST

- 1 Connect the radiator cap to the blue or black tube
- 2 Connect a suitable adapter on the other side
- 3 Pump the pressure that is higher than what is specified on the cap to see if the cap can release pressure (Fig 4)
- 4 Pump the pressure that is lower than what is specified on the cap to see if the cap can hold pressure



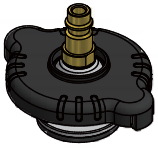
## 4. APPLICATIONS

The application below shows a broad application. More vehicle applications are possible. Some car models may use multiple types of sizes due to variations in body style (e.g. sedan, hatchback, or cabriolet), engine size and capacity (e.g. 1.6L, 1.8L, 2.4L), and engine numbers.

## APPLICATION BY CAR MAKES

CAR MAKE	ADAPTER
Alfa Romeo	R
Audi	8, 9, A
BMW	0, B, S
Buick	3, C, G
Cadillac	3, C, G
Chevrolet	3, 6, C, G
Chrysler	3, 5
Citroen	3, 5, R
Dodge	3, 5, C
Fiat	3, C
Ford	3, 4, 6, C, F, S
GMC	3, C, G
Honda	3, 5
Hyundai	3, 4, H
Jaguar	F
Jeep	3, C
Kia	3, 4, H
Land Rover	0, 6, F
Lincoln	6, F
Mazda	3, 4, 5, F
Mercedes-Benz	3, 6, E, M, R
Mitsubishi	3, 4, 5, R
Nissan	4, R
Opel	3, 5, C, G, R
Peugeot	3, R
RAM	3, C
Renault	3, R
SEAT	8, 9, S
Skoda	8, 9
Saab	6, G
Subaru	3, 4, 5
Tesla	C
Toyota	3, 5, T
Volvo	F, R, X
Volkswagen	8, 9, A, S

## APPLICATION BY ADAPTER NUMBERS



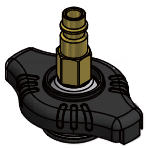
### Adapter #3

Buick, Cadillac, Chevrolet, Chrysler, Citroen, Dodge, Fiat 500, Ford, GMC, Honda, Hyundai, Jeep, Kia, Mazda, Mercedes-Benz, Mitsubishi, Peugeot, RAM, Renault Koleos, Subaru, Toyota



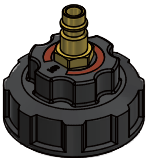
### Adapter #4

Ford Explorer, Hyundai, Kia, Mazda, Mitsubishi, Nissan, Subaru



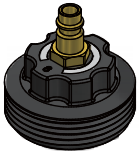
### Adapter #5

Chrysler Sebring, Citroen C1, Dodge, Honda, Mazda, Mitsubishi, Opel Agila, Peugeot 107, Subaru, Toyota



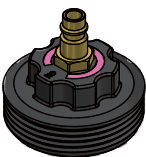
### Adapter #6

Chevrolet Aveo, Ford, Lincoln, Land Rover, Mercedes-Benz, Saab



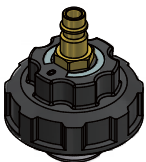
### Adapter #8

Audi, SEAT, Skoda, Volkswagen



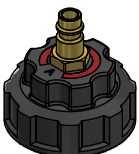
### Adapter #9

Audi, SEAT, Skoda, Volkswagen



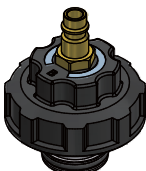
### Adapter #0

BMW, Land Rover



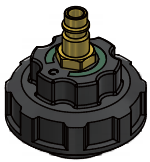
### Adapter A

Audi, Volkswagen



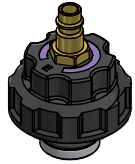
### Adapter B

BMW



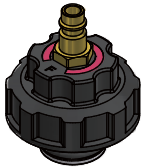
### **Adapter C**

Buick, Cadillac, Chevrolet, Chrysler, Dodge, Fiat 500X, Ford, GMC, Jeep, Opel, RAM, Tesla Model X



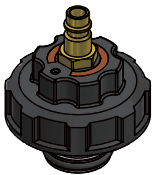
### **Adapter E**

Mercedes-Benz



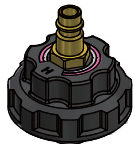
### **Adapter F**

Ford, Jaguar, Land Rover, Lincoln, Mazda, Volvo



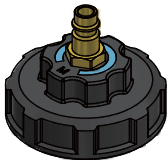
### **Adapter G**

Buick, Cadillac, Chevrolet, GMC, Opel, Saab 9-7x



### **Adapter H**

Hyundai, Kia



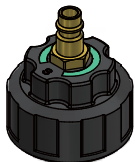
### **Adapter M**

Mercedes-Benz



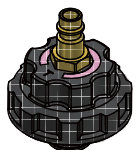
### **Adapter R**

Alfa Romeo, Citroen, Mercedes-Benz Citan W415, Mitsubishi Outlander, Nissan, Opel, Peugeot, Renault, Volvo



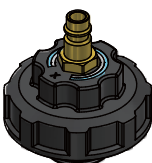
### **Adapter S**

BMW, Ford Galaxy, SEAT Alhambra, VW Sharan



### **Adapter T**

Toyota



### **Adapter X**

Volvo 2.0L Twin Engine Plug-in Hybrid