

# CT2

Coolant Transfusion System

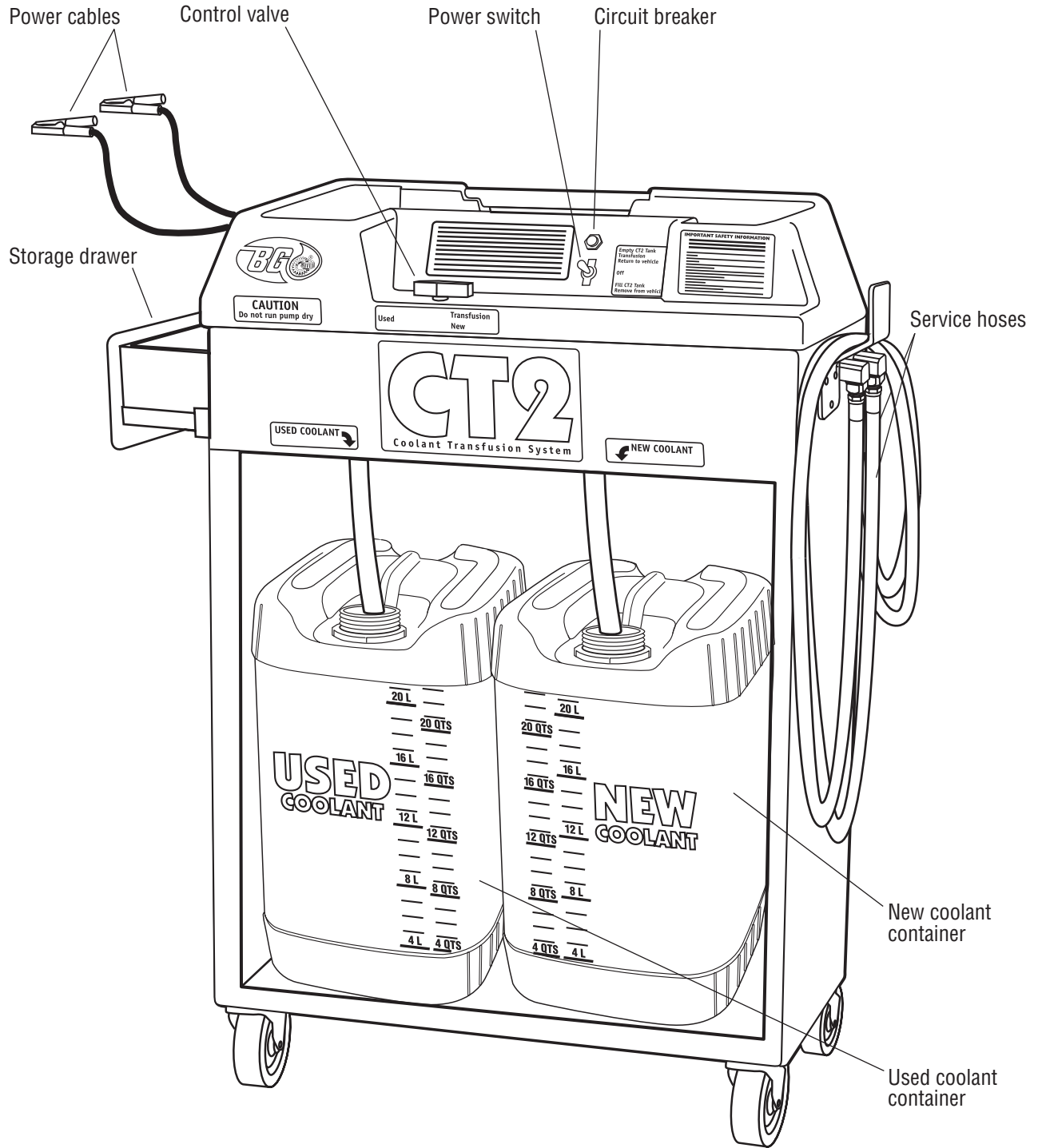
## Reference Manual



**BG Products, Inc.**



# CT2 Coolant Transfusion System



The BG CT2 Coolant Transfusion System comes with Suction Wand and Upper Radiator Hose Adaptor, Part No. CT700.



# CT2 Coolant Transfusion System

## Safety Requirements

The following instructions **must** be followed before servicing or attempting to place this system into operation and removing or adding fluid to any vehicle cooling system.

1. Carefully read the BG CT2 Operating Instructions before beginning vehicle service.
2. Read the Material Safety Data Sheet before working with any chemicals.
3. Wear chemical goggles to protect your eyes.
4. Wear Nitrile, Neoprene or PVC gloves to protect your hands.
5. Wear a long-sleeved shirt.
6. A combination of mechanical and local ventilation should be used to prevent operator exposure to noxious fumes.
7. Keep all hoses and tools away from moving engine parts.
8. Check all lines and fittings for cracks and leaks before and after service.
9. Use **EXTREME CAUTION** when removing radiator cap to prevent being burned by hot fluids escaping from the cooling system. Use **EXTREME CAUTION** when handling hoses and fittings on BG CT2 unit as they can reach the same temperature as coolant.
10. Ensure that the BG CT2 pump switch is in the **OFF** position before connecting to power source.
11. **DO NOT** dispose of any cooling system fluids or filters in a manner that is not in compliance with Federal, State or Local environmental regulations.

**The BG CT2 Coolant Transfusion System is designed to be used only with vehicle cooling system service. DO NOT use unit to pump or transfer any flammable or combustible liquids.**



# **CT2** Coolant Transfusion System

## **Limited Warranty**

This product is warranted by BG Products, Inc. to be free of defects in workmanship and materials for a period of one (1) year from the date of purchase by original purchaser. If the product fails within this period, it will be repaired or replaced at seller's option, provided (1) the product is submitted with proof of purchase date and (2) transportation charges are prepaid to the nearest Service Center. Liability under this warranty is expressly limited to repairing or replacing the product or parts thereof. This warranty does not apply to product or parts broken by accident, negligence, overload, abuse, or if they have been tampered with or altered in any way. This warranty does not apply to service hoses and adaptors which may need replacing due to normal wear. If this warranty does not apply, then the purchaser shall pay all costs for labor, material and transportation.

Note: The use of this apparatus for any purpose other than the services described will render this warranty null and void, as will the use of any chemicals other than the BG products described in this manual. No other warranties are expressed or implied.





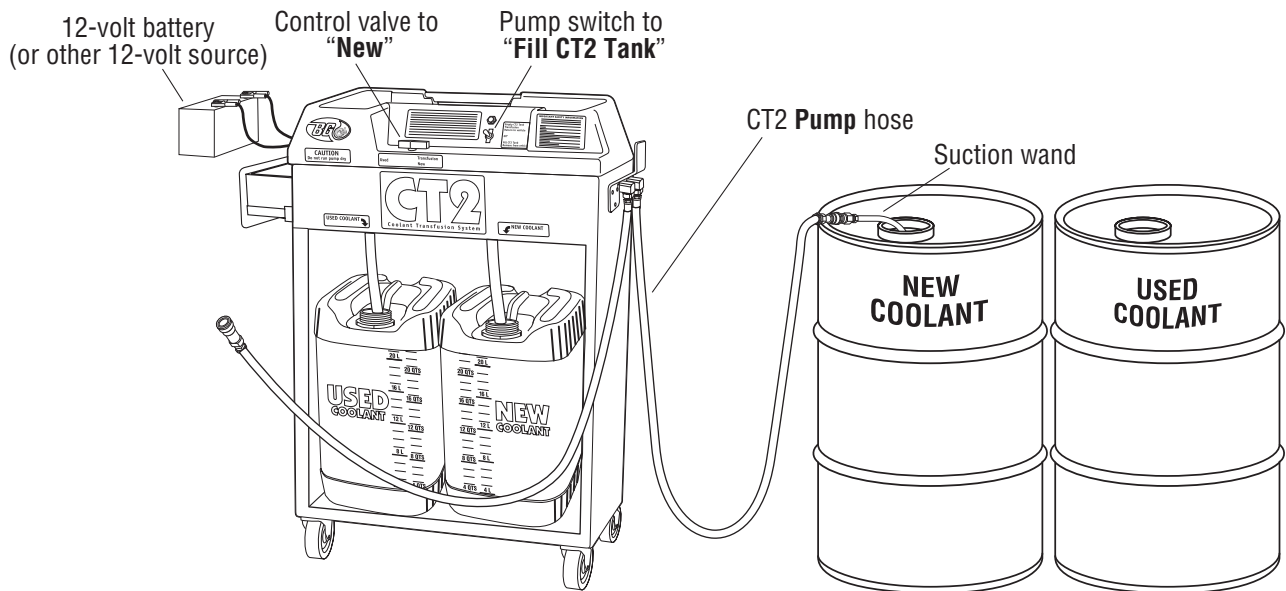
# CT2 Coolant Transfusion System

## Setting up the BG CT2

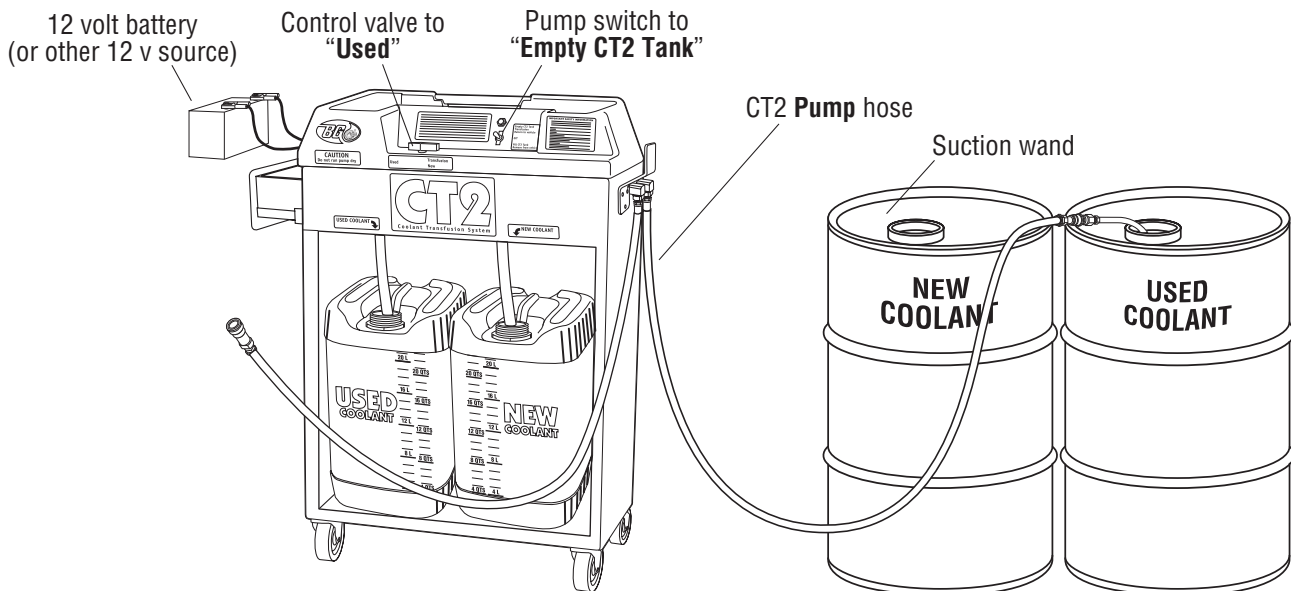
Set the two included 6-gallon translucent containers inside the CT2 and insert the corresponding hoses which are hanging down inside the unit. Left hose (used coolant) in the left container and the right hose (new coolant) in the right container. Connect the service hoses to the ports on the front of the CT2. Attach the suction wand to the end of the pump hose.

Roll CT2 unit to the new (or recycled) 50/50 coolant supply. Be sure pump switch is off. Connect the power cables to a 12-volt battery or other 12-volt source.

Insert the suction wand into the new coolant supply. Turn control valve to “New” position and turn pump switch to “Fill CT2 tank.” This will fill the new coolant tank located on the right side of the CT2. Turn pump switch off.



To empty the used coolant tank in the CT2, attach the suction wand to the pump hose and place the wand into the used coolant receptacle. Turn control valve to “Used” position and turn pump switch to “Empty CT2 tank” until CT2 used coolant container is empty. Turn off pump.



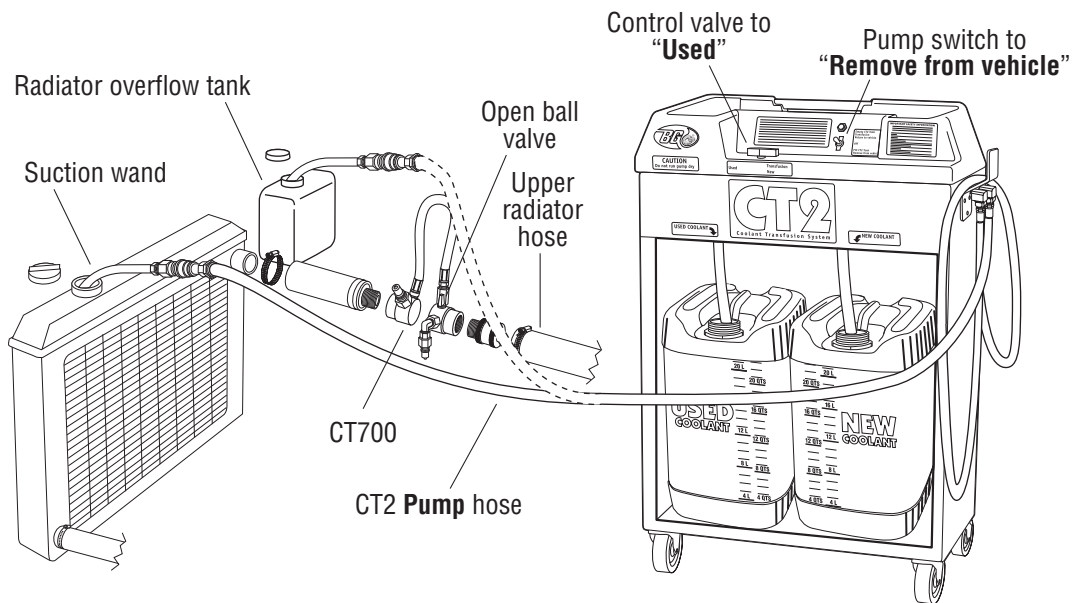


# CT2 Coolant Transfusion System

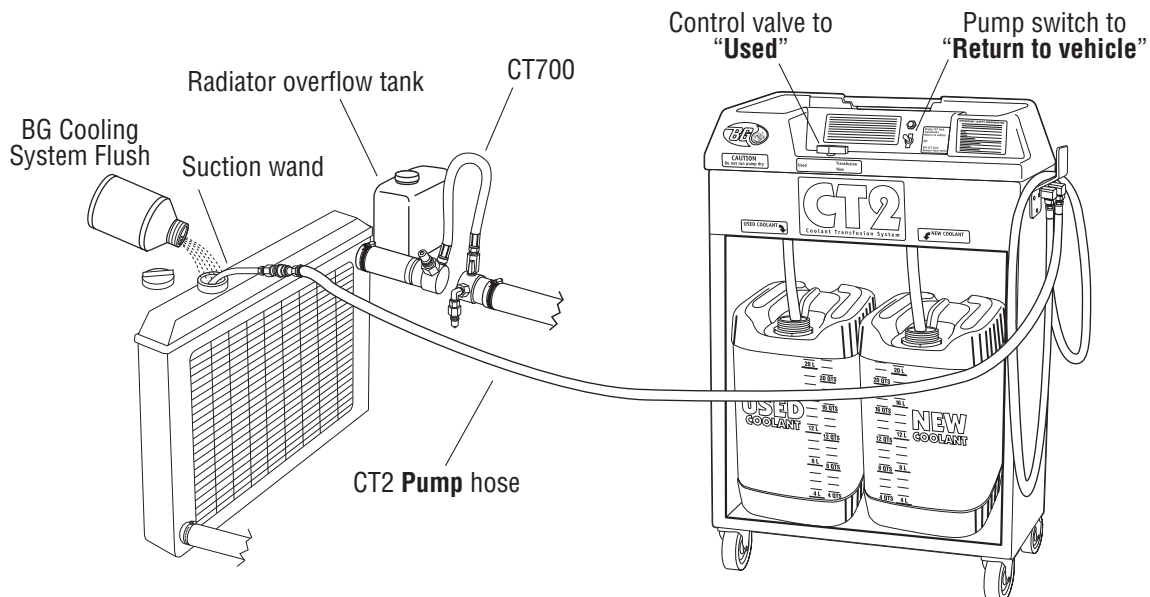
## Installing BG CT700 Upper Radiator Hose Adaptor

Remove radiator cap from the cooled vehicle and insert the suction wand end of the **pump hose** as deep into the radiator as possible. Turn control valve to **“Used”** (left) and turn pump switch to **“Remove from vehicle”** (down). Remove enough used coolant to allow for a dry removal of the upper radiator hose, then turn pump off. Move the suction wand to the radiator overflow tank and turn pump to **“Remove from vehicle”** to remove all the used coolant from it. Turn pump off.

Remove the upper radiator hose from the radiator and install the Upper Radiator Hose Adaptor, Part No. CT700, according to its instructions. Open the ball valve on the CT700. Note: The CT700 is non-directional.



Install a 12-ounce bottle of BG Cooling System Cleaner into the mouth of the radiator. Put the suction wand back into the radiator. Turn control valve 1/2 way between **“New”** and **“Used.”** Turn pump switch to **“Return to vehicle”** (up) position. Turn control valve slowly to **“Used”** to avoid splashing the coolant. Fill the radiator, turn off the pump and replace the radiator cap securely. Start the engine and run at idle 10–15 minutes to circulate the BG Cooling System Cleaner.





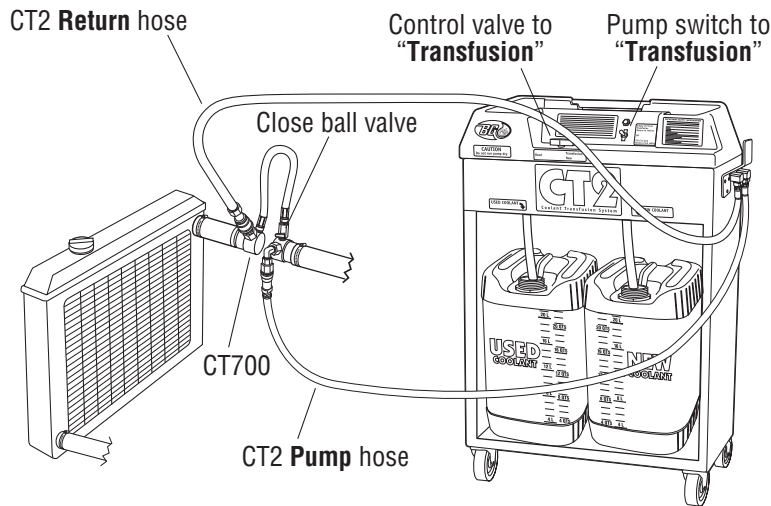
# CT2 Coolant Transfusion System

## Coolant Transfusion: Engine Off

### Systems with thermostat connected to upper radiator hose

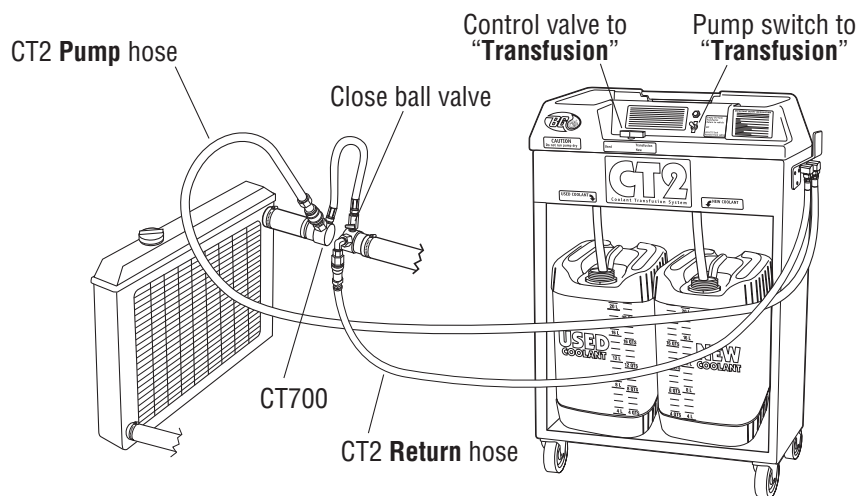
Stop engine and remove the suction wand from the end of the pump hose.

Attach the **pump hose** to the **engine side** of the CT700. Attach the **return hose** to the **radiator side** of the CT700. Close the ball valve on the CT700. Turn control valve and then pump switch to **“Transfusion.”**



### Systems with thermostat connected to lower radiator hose

Attach the **pump hose** to the **radiator side** of the CT700. Attach the **return hose** to the **engine side** of the CT700. Close the ball valve on the CT700. Pinch off the small tube that connects the radiator fill neck to the recovery tank. (Failure to pinch off this hose may allow the cap to vent coolant under pressure to the recovery tank causing it to fill and overflow.) Turn control valve and then pump switch to **“Transfusion.”**



**If attempting to do service and the pump stops or flutters (turns off and on repeatedly),\*** check for flow through the service hoses. If there is flow, the service will proceed without a problem. The fluttering can be stopped by moving the control valve towards the center position (do not completely shut off flow). If there is no flow, check quick coupler connections and verify thermostat location for proper flow direction.

\*The CT2 system contains a pressure switch that is set to prevent over-pressurizing of the cooling system. Motor will start again when pressure is released.





# CT2 Coolant Transfusion System

## Coolant Transfusion: Engine Running

In the event that flow cannot be achieved with the engine off, the service can always be accomplished with the engine running.

Reverse the CT2 service hoses at the CT700 so that the **pump hose** is attached to the side **opposite the thermostat**. The **return hose** should be attached to the **thermostat side**. Open ball valve on CT700 and start engine. Allow engine to run until it reaches full operating temperature. Close ball valve on CT700 and perform service as normal.

It will be necessary to pinch off the small hose to the recovery tank to prevent the radiator cap from releasing coolant as the thermostat closes and opens. The pump motor will also likely cycle on and off as pressure builds when the thermostat closes.



# CT2 Coolant Transfusion System

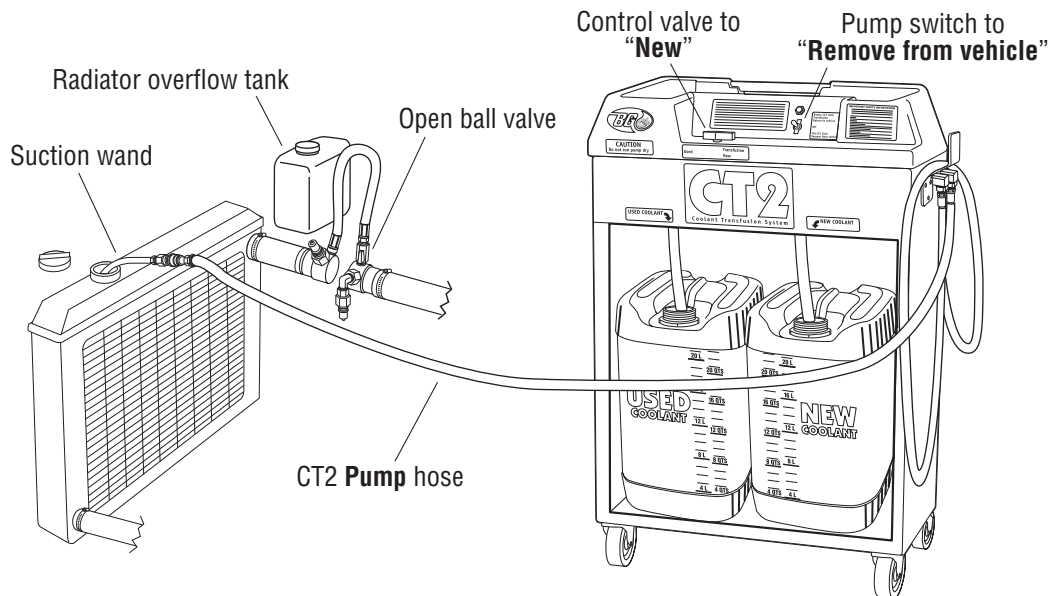
## Removing the CT700 Upper Radiator Hose Adaptor

When transfusion is complete, turn off CT2 pump switch and the vehicle engine. Open the ball valve on the CT700 to release any trapped pressure from the engine. Allow the engine to cool if possible before removing the radiator cap.

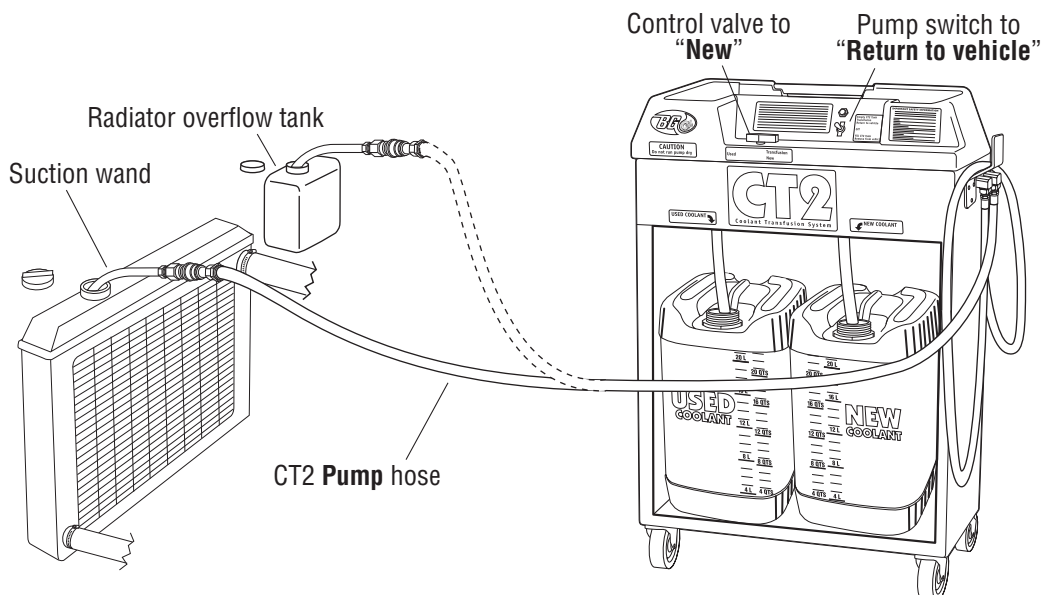
**NOTE: Do not run the new coolant container dry, save enough to refill the overflow tank.**

For dry removal of the CT700, disconnect both service hoses from the CT700 and attach the suction wand to the **pump hose**. Remove radiator cap and insert the suction wand deep into the radiator.

Turn control valve to **"New"** (right) and pump switch to **"Remove from vehicle"** (down). This will store the new coolant in the upper radiator into the new coolant container.



Remove the CT700 and reconnect the upper radiator hose. Add inhibitors at this time. Place the suction wand back into the radiator. Turn control valve 1/2 way between "New" and "Used." Turn pump switch to **"Return to vehicle"** (up). Turn control valve slowly to "Used" to avoid splashing the coolant. Refill radiator with new coolant. Turn off pump and replace radiator cap securely. Move suction wand to overflow tank and repeat to refill to the normal level with new coolant.



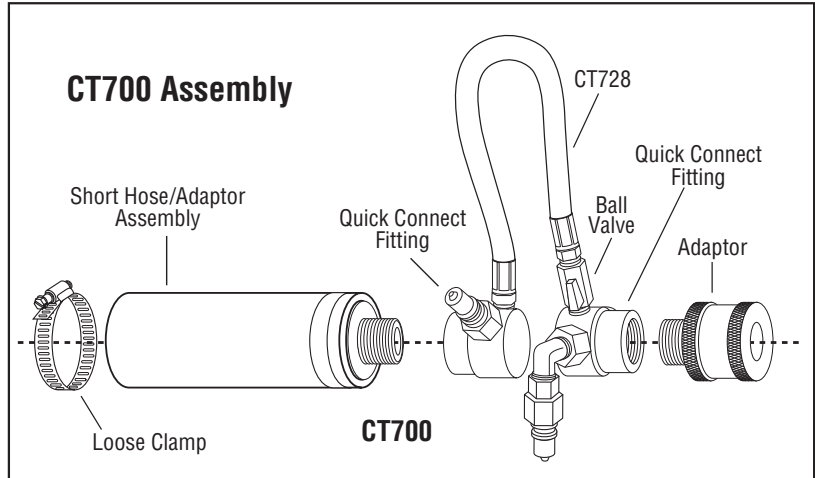
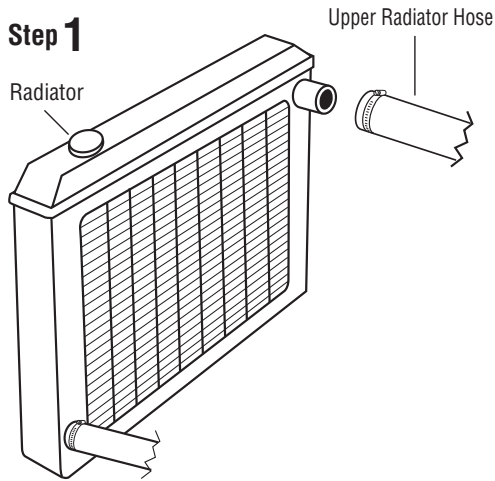


# Upper Radiator Hose Adaptor Set

Part No. CT700

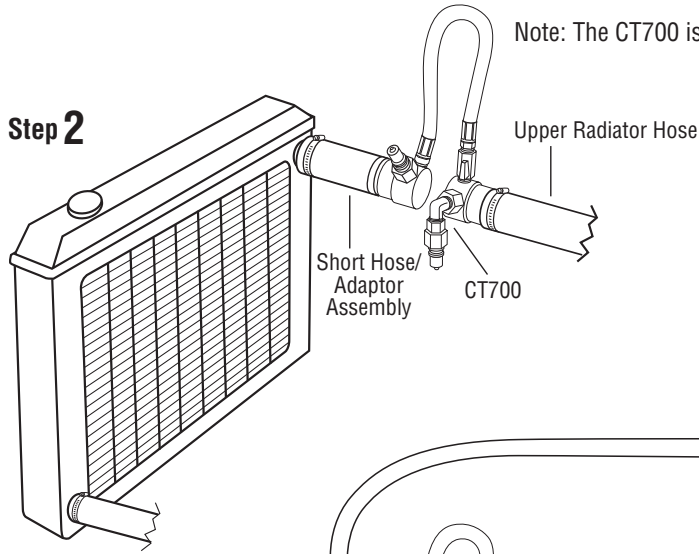
## Instructions

### Step 1

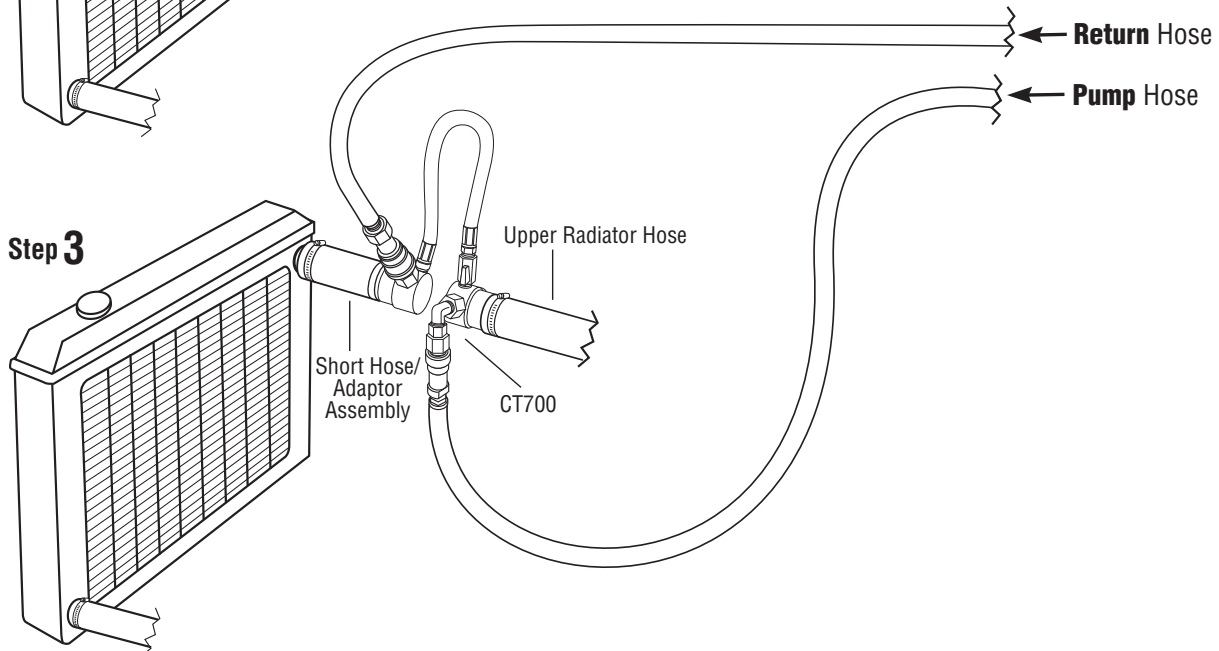


Note: The CT700 is non-directional.

### Step 2



### Step 3

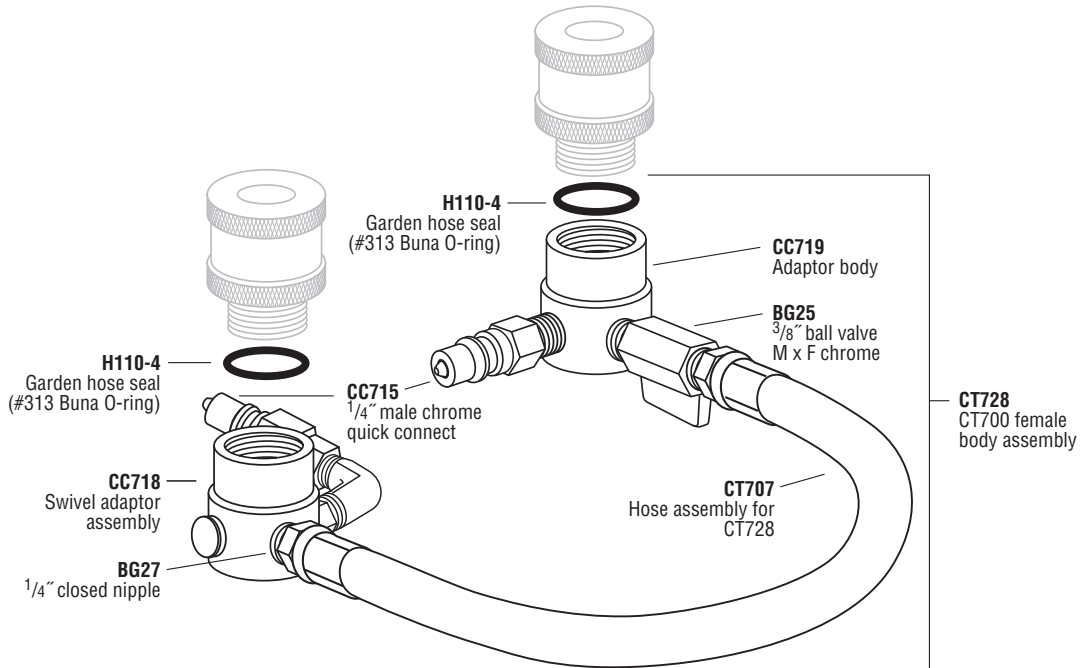




# Upper Radiator Hose Adaptor Set

Part No. CT700

## Parts List

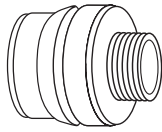


	<b>CC732</b> 2 1/4" adaptor		<b>CC733</b> 2 1/4" x 4" radiator hose
	<b>CC725</b> 2" adaptor		<b>CC704</b> 2" x 4" radiator hose
	<b>CC724</b> 1 3/4" adaptor		<b>CC727</b> 1 3/4" x 4" radiator hose
	<b>CC723</b> 1 1/2" adaptor		<b>CC703</b> 1 1/2" x 4" radiator hose
	<b>CC722</b> 1 3/8" adaptor		<b>CC726</b> 1 3/8" x 4" radiator hose
	<b>CC721</b> 1 1/4" adaptor		<b>CC702</b> 1 1/4" x 4" radiator hose
	<b>CC720</b> 1" adaptor		<b>CC701</b> 1" x 4" radiator hose

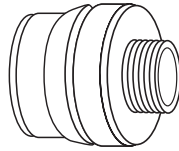


# Optional Upper Radiator Hose Adaptors

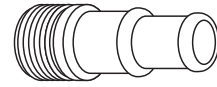
(optional for CT2 & CT6)



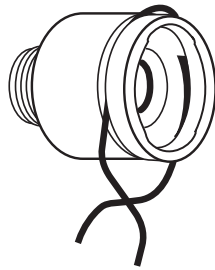
**CC729**  
VW radiator adaptor  
(mates w/CC734)



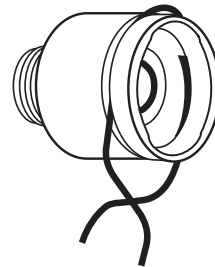
**CC730**  
BMW radiator adaptor  
(mates w/CC735)



**CC731**  
5/8" & 3/4" adaptor



**CC734**  
VW radiator adaptor, female



**CC735**  
BMW radiator adaptor, female



# Large Capacity Upper Radiator Hose Adaptor Set

Part No. CT6-100

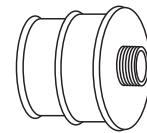
(included in CT6/optional for CT2)



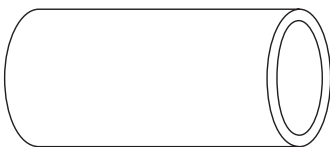
**CC738**  
2 3/4" x 4" radiator hose



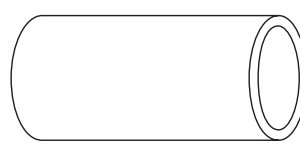
**CC737**  
2 1/2" x 4" radiator hose



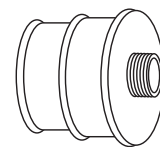
**CC736**  
2 1/2", 2 3/4" radiator adaptor  
(2 each)



**CC741**  
3 1/2" x 4" radiator hose

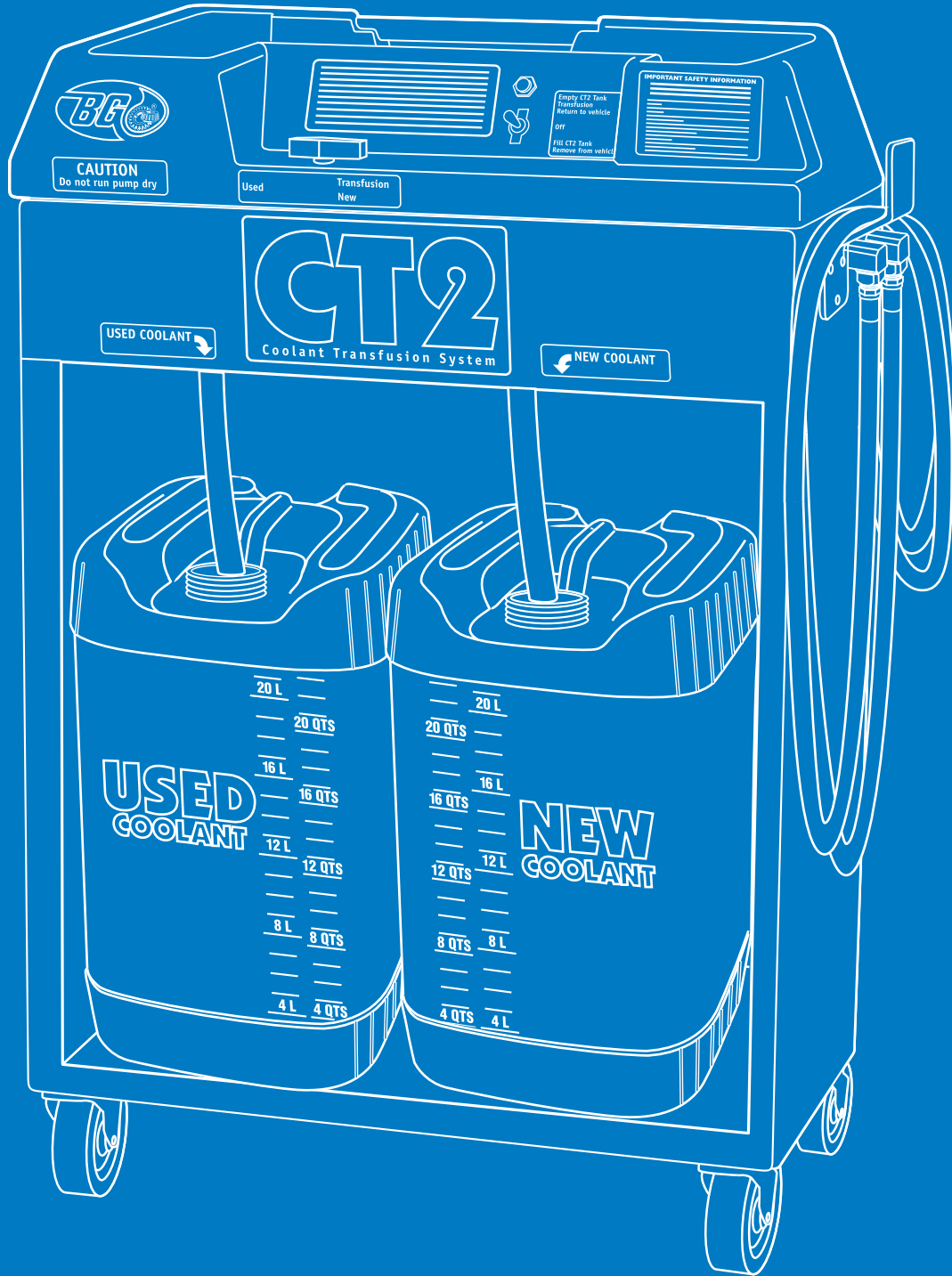


**CC740**  
3" x 4" radiator hose



**CC739**  
3, 3 1/2" radiator adaptor  
(2 each)





**BG**  **BG Products, Inc.**