Radiator Coolant Exchanger
Operation Manual

The RCS Coolant Machine completely removes contaminated engine coolant while simultaneously refilling the cooling system with new coolant. Keeping the cooling system full at all times eliminates air locks from occurring. RCS gives you the ability to hook up to the cooling system while it is cool and not under pressure – alleviating working with hot pressurized coolant.

Flushing chemicals can be used to maximize the cleaning of the cooling system. This proven thermal barrier process makes a cooling system flush & exchange, the most effective, timesaving response to cooling system service requirements.

- Open the radiator/expansion tank cap
- (CAUTION: Fluid may be hot & cap under pressure)
- Connect shop air to RCS and check for pressure (15-17 psi)
- If adjustment is needed, a regulator is located in the side pocket of the machine. Pull out on knob and turn it either clock wise to increase or counter clockwise to decrease the pressure, then push in the knob to lock.
- Be sure proper amount of premixed coolant is in the new coolant tank plus 2 LT (or 2 quarts) extra (be sure the cap is tight on the new coolant tank)
- Check so that the used tank has enough room for the used coolant
- IMPORTANT! Empty the used fluid tank after every service
- Use the evacuator hose (attach it to the black drain hose, turn diverter valve to “evacuate” position, the other valve to “off”) to clean out the overflow tank & evacuate out approx. 2 liters (2 quarts) of coolant from the system

STEP 1 – CONNECTION OF LOOP HOSE

- Remove the top radiator hose at either the engine block or at the radiator whichever is the most accessible. If desired pour a radiator flush chemical into the radiator hose or into the radiator.
- Connect one end of the adapter loop hose to the radiator the other toward thermostat. Attach the long red hose to the loop hose towards the thermostat and the long black hose towards the radiator. (see picture below)
- Top up with fluid.
- NOTE: On reverse flow systems connect the opposite direction (long red hose towards radiator)

Long Black Hose **Long Red Hose**

One of two loop hoses provided.

EXCHANGE OF THE COOLANT FLUID

- Open loop hose valve only, and close valves on the long red and black hoses.
- Start vehicle – check fluid level in radiator after a few minutes of run time. Top off if required.
- If using a cleaner, run vehicle for suggested length of time for cleaning.
- Turn off vehicle
- Close loop hose valve
- Turn both diverter valves on side of RCS to “exchange” position
- (see picture to right)
- At desired pressure (15-17 psi) open ball valves **on black** and **red** hoses
- When desired amount has been exchanged, close ball valve on **red** hose **first** then on **black** hose. Evacuate out approximately 2LT (2Qt) of coolant from radiator so that the level is below top radiator hose

TO DISCONNECT LOOP HOSE

- Disconnect the red ***fill*** hose & black ***drain*** hoses
- Disconnect the adapter ***loop*** hose
- If desired, pour a conditioner into the radiator or top radiator hose
- Reconnect top radiator hose to radiator and make sure clamps are tight
- Top off radiator and overflow tank using evacuator hose attached to red fill hose
- Start vehicle, check coolant level and check for possible leaks

TO DRAIN USED COOLANT TANK

- Connect clear evacuator hose to long **Black** drain hose. Connect shop air to machine
- Position both diverter valves to drain tank
  (See picture to right)
- Place the clear hose into a waste tank open ball valve on black hose, the air pressure will force used coolant out of the used coolant tank, when finished turn both diverter valves to exchange position this relieves the pressure for storage

TROUBLESHOOTING

No pressure: Set regulator 15-17psi, tighten filler cap.
No vacuum: Clean external filter or debris in the air line