INSTRUCTIONS FOR COOLANT FILL TOOL

Please read the following before using this tool:

- Install an air line nipple (not supplied) to the shutoff valve.(Note: Hold the ball valve body assembly with a wrench during air line nipple installation to avoid damage to the Venturi assembly)
- Install the cone adapter to the elbow fitting
- Push the furnished refill hose onto the barbed fitting on the coolant fill tool
- Minimum shop air required is 90 psi (6 BAR) and should have an air dryer system
- **NOTE:** For best results, the radiators should be completely drained
- **NOTE:** In bus applications, it is recommended to close the heater shutoff valves when initially draining the system

Refilling Instructions:

1. Insert the coolant fill tool cone adapter into the radiator service neck or reservoir tank.

2. Make sure the refill hose valve (blue lever) is closed. (Fig.1)

3. Insert the filter end of the refill hose into the coolant container. It is recommended to draw from more coolant than required. (Fig.2) **NOTE:** *Models equipped with an additional overflow tank require that hoses to the tank be clamped shut prior to the next step.*

4. Connect shop air to the Venturi assembly and then open the ball valve (red lever).You will hear a hissing noise as the tool begins to pull a vacuum.

5. With the ball valve (red lever) left open, open the refill valve (blue lever) slightly and close as soon as coolant has filled the hose. (This is done in order to remove air from the fill hose). At this time, the fill tool no longer needs to be monitored and the vacuum gauge pointer will begin to rise after a short period. (Fig.3) **NOTE:** Radiator and heater hoses may start to collapse. This is normal due to vacuum draw.

6. Depending on the size of the cooling system, a typical gauge reading of 25 or higher should be reached within 2 – 3 minutes. (The gauge reading may be slightly less in higher elevations but a proper vacuum should still be reached within 3 minutes).

7. Once the gauge has reached the desired vacuum level, close the vacuum air supply valve (red lever) and let the system sit for 20 seconds to observe for a drop in vacuum. A drop in the gauge reading indicates a vacuum leak in the system.

8. Open the refill valve (blue lever) and the coolant will start to fill the cooling system. A system without a vacuum leak will fill in about 4 minutes. (Fig.4) **NOTE:** *If the refill tube end comes out of the coolant during the refill process, air will be pulled into the system and the entire procedure will need to be repeated.*

9. Disconnect the airline and remove the fill tool. **NOTE:** Overflow tanks should be filled to proper level. Top off cooling system if necessary.