



UNC
ENVIRONMENT,
HEALTH & SAFETY

Job Safety Analysis

Safety Information for The University of North Carolina at Chapel Hill

JOB SAFETY ANALYSIS TOPIC:

Reclaiming Refrigerant for Window Unit AC Housing Support HVAC



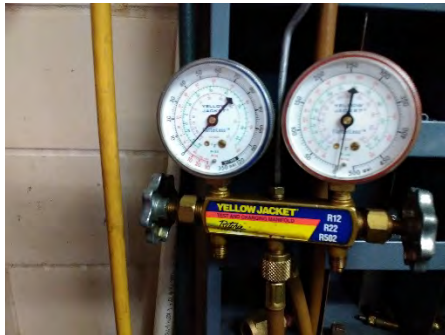
Title	Work Task	Hazards	Controls
Preplan the work	Gather proper tools and equipment (Reclaim machine, Shrader Valve, Refrigerant Tank) Gather Proper PPE for the job and inspect it (safety glasses, leather gloves, steel toe)	Improper tools Improper/No Equipment Inspection Improper PPE inspection/selection	Improper/Lack of Inspection can lead to injury from faulty or old parts; proper inspection can lead to repair and replacement of dangerous equipment Improper PPE use and inspection can lead to unnecessary hazards created by wrong PPE or faulty PPE
Before the job	Don necessary PPE	Improper Donning Skin or Eye Contact with refrigerant	Improperly donning or not donning PPE can lead to an unnecessary exposure. Make sure window unit is unplug before starting the job.

Reclaiming the refrigerant	Make sure unit is unplugged. Remove the back cover from the window unit.	Hand/Foot Injury Skin Intrusion/Laceration	
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You will need to add a self-taping Schrader valve, but do not pierce the copper line yet.



The gauges should be turned off and then connected to the high and low sides of the unit to be recovered from. Red goes to the high side; Blue goes to the low side.



Eye Injury

Burns

Electrocution

Back Injury

Use proper lift, move and carrying techniques when handling the window units.

Keep PPE on during entirety of work.

Do not use gauge if it's missing any pieces or damaged.



The center yellow hose goes to the suction line of the recover machine marked IN, a dryer should be placed here to help keep contaminants out.

A single hose goes OUT of the recovery machine to the recovery tank.



Set the recovery tank on a scale to measure how much refrigerant is removed from the unit, and avoid overfilling the recovery tank. **By law a tank can only be filled to 80 percent capacity**

After everything is connected the air purged from the hoses. This is done by opening all the valves from the unit to the tank, only the tank valve should be off, then at the tank letting the air push out of the hoses. This will only be done

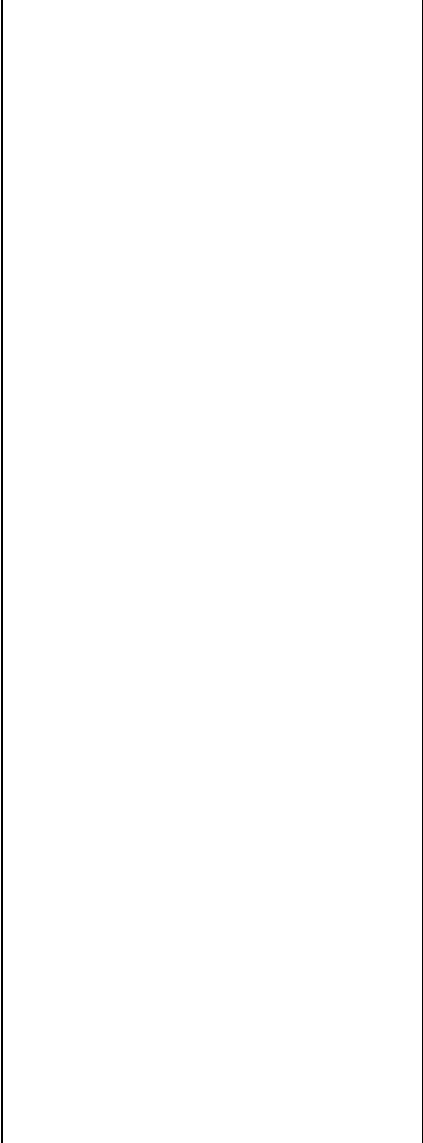
Be sure to monitor the scale so that the tank is not over filled.

for a few seconds. At the tank unscrew the hose slightly until air is heard escaping, after a second or two re-tighten the connection to the tank. The refrigerant will be under pressure and push the air out of the lines. Pressure at the recovery machine will show when all valves are open.

After the lines are purged the recovery machine is ready to be turn on. You can pierce the copper line now. The recovery tank valve along with all other valves should be open, the recovery machine can be turned on.

After the recovery machine has reached zero psi the recover machine needs to be purged. To do this turn the low-side blue valve to purge and the high red side to purge on the recovery machine. Then watch the gauges on the recovery machine. The low side will go from high-to-low and the recovery machine should shut down when it's done.

Close all the valves, especially the recovery tank once the reclaim is complete.



<p>Clean Up</p>	<p>Remove the manifold hoses and Schrader valve, disconnect the hoses from reclaim machine and refrigerant tank.</p> <p>Make sure the refrigerant tank is closed when done.</p> <p>Submit Surplus order to have the window unit removed from the shop.</p> <p>Clean and store PPE properly.</p> <p>Store the refrigerant tank in the proper rack with cap in place.</p>	<p>Improper Clean Up</p> <p>Improper Storage of Equipment/PPE</p>	<p>Have storage locations for refrigerant tanks, once tank is full dispose of the tank properly at the supply house.</p>
<p>Training</p>	<p>Employees must have hands on training in the proper use of this piece of equipment.</p>	<p>Supervisor is to fill out the turn in the form to UNC-CH ‘Supervisor Led Training Form’ and Environment, Health and Safety for documentation of proper training</p>	
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