CENTRAL AIR CONDITIONER
TUNE-UP REPORT

Consumers Energy
Count on Us®

First Name:	Last Name:		Consumers Energy Account Number:	
Street Address (where equipment was serviced):				
City:		State:		ZIP:
Homeowner's Email (to receive rebate status updates):			Home Phone:	
Contractor Name:			Contractor Phone:	

❑ Natural Gas Furnace or ❑ Air Handler	Furnace or AHU Manufacturer__________ Rated TESP__________
❑ Condensing Unit or ❑ Heat Pump	Model #__________ Serial #__________
SEER (if known) __________	Condensing Unit Manufacturer__________ Tons__________
Service Date __________	Model #__________ Serial #__________
Indoor Coil (tons and ref. control only if in air handler)	Indoor Coil Manufacturer__________ Tons__________
	Metering Device ❑ TXV ❑ Fixed

Air conditioning tune-up services must be performed between May 1 and September 30, 2017, to qualify.

	Test Results	Before		After*		Comments
Required	Fan Airflow (measured/verified)†	@		@		Ideally this system should have__________CFM
Required	Coil Entering WB Temp†					Coil entering conditions—measure to 1 decimal place F
Required	Coil Leaving WB Temp†					Coil leaving conditions—measure to 1 decimal place F
Required	Coil Capacity	BTUH		BTUH		BTU = CFM x 4.5 x Δ Enthalpy
Required	÷ Equipment Nominal BTU	BTUH		BTUH		Manufacturer's rated nominal cooling BTUH
Required	Coil Capacity/System Nominal = System Effective Efficiency†	%		%		
Optional But Recommended	System Watts					Watts = measured Volts x measured Amps
Optional But Recommended	Room Return Air DB (opt)	°F		°F		Compare to coil entering DB (optional)
Optional But Recommended	Farthest Room Supply DB (opt)	°F		°F		Compare to coil leaving DB (optional)
Optional But Recommended	**Charge Verification**			**Added**	**Recovered**	**Quantity:** ___ **Lb.** ___ **Oz.**
Optional But Recommended	Condenser Entering Air DB	°F		°F		Outdoor air temperature
Optional But Recommended	Suction/Liquid Line Pressure					Needed to check refrigerant charge
Optional But Recommended	Suction/Liquid Line Temperatures					Needed to check refrigerant charge
Optional But Recommended	Actual/OEM Specified					❑ Superheat ❑ Subcooling ❑ Approach

*If initial readings are 85 percent or less, post-maintenance calculations are required.
†Mandatory values. System efficiency calculated on back of form.

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Calculation Worksheet—Before

System Watts (Power):

Blower Motor Volts________________ x Amps________________ = ________________Watts

Compressor Volts________________ x Amps________________ = ________________Watts

Condenser Fan Volts________________ x Amps________________ = ________________Watts

Add the above to get total system watts ________________

Converting Wet Bulb to Enthalpy (Measure all temperatures to first decimal place and record Enthalpy to two decimal places.):

Coil Entering WB________________ = ________________BTU/Lb Enthalpy a

Coil Leaving WB________________ = ________________BTU/Lb Enthalpy b

Coil Capacity: CFM _____________ x 4.5 x (Enthalpy a - b____________) = ____________BTUH

System Effective Efficiency: Coil Capacity: _____________ ÷ _______________Equipment Normal Capacity = _________%

Complete these calculations to get coil capacity.

System efficiency is coil capacity ÷ nominal capacity.

Tune-Up Procedures—Check all that apply

As a minimum, the following were accomplished:

- ❑ Inspected filter, cleaned or replaced standard filters
- ❑ Cleaned condenser coil
- ❑ Inspected evaporator coil, recommended cleaning as needed
- ❑ Adjusted airflow
- ❑ Adjusted refrigerant charge
- ❑ Inspected electrical connections and wire

Comments:

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Calculation Worksheet—After (Required if "Before" efficiency is less than 85% of nominal)

System Watts (Power):

Blower Motor Volts________________ x Amps________________ = ________________Watts

Compressor Volts________________ x Amps________________ = ________________Watts

Condenser Fan Volts________________ x Amps________________ = ________________Watts

Add the above to get total system watts ________________

Converting Wet Bulb to Enthalpy (Measure all temperatures to first decimal place and record Enthalpy to two decimal places.):

Coil Entering WB________________ = ________________BTU/Lb Enthalpy a

Coil Leaving WB________________ = ________________BTU/Lb Enthalpy b

Coil Capacity: CFM _____________ x 4.5 x (Enthalpy a - b____________) = ____________BTUH

System Effective Efficiency: Coil Capacity: _____________ ÷ _______________Equipment Normal Capacity = _________%

Complete these calculations to get coil capacity.

System efficiency is coil capacity ÷ nominal capacity.

Notes

If the ductwork is installed in a hot, unconditioned space, a difference between the room return air and coil entering air temperatures could indicate delivered capacity loss from duct leakage and/or transmission gains. Duct sealing or insulating may be recommended to improve delivered capacity, comfort and efficiency.

A difference between the coil leaving temperature and the temperature delivered to a supply terminal usually indicates transmission gains through inadequate insulation. If the supply ducts leak, air will be lost to the unconditioned space.

If adequate coil airflow cannot be achieved by replacing a dirty filter or changing the blower speed, the problem is likely inadequate ductwork.

Technician (print name): ______________________________ Technician Signature: ______________________________

Collect homeowner's signature on the Terms and Conditions form. Date: ______________________________

Only one rebate is available for each qualifying heating and cooling unit purchased or serviced.

January 2017

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