

**Please fill out either form:**

**FORM 1:**

**Packaged Water-To-Air and  
Water-To-Water Units**

**FORM 2:**

**Water-To-Air Split Units**



## Geothermal Heat Pump Start-Up Certification Form

Installer Name \_\_\_\_\_ Company Name \_\_\_\_\_

Company Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_

Phone \_\_\_\_\_ Installer E-Mail \_\_\_\_\_

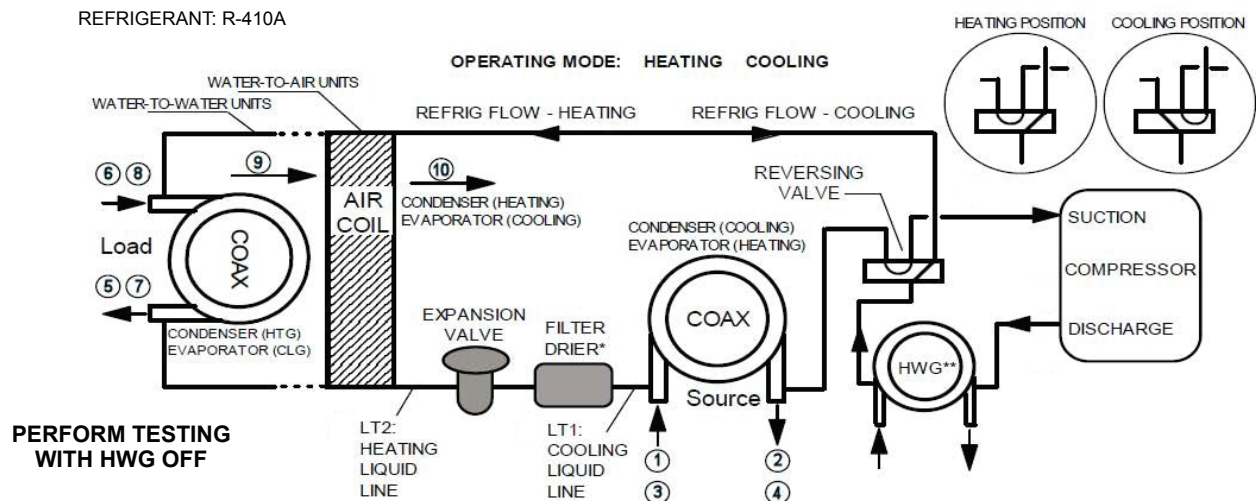
Customer Name \_\_\_\_\_ Customer E-Mail \_\_\_\_\_

Customer Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_

Phone \_\_\_\_\_ Start-Up Date \_\_\_\_\_

**Loop Type:** \_\_\_ Open \_\_\_ Closed Pressurized \_\_\_ Closed Non-Pressurized Antifreeze Type and % \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_



Complete the following information for any type of unit			
Description	Heating	Cooling	Notes
1			
2			
			1 minus (-) 2
3			
4			
			3 minus (-) 4
9			
10			
			9 minus (-) 10

Additional Information required for Water-to-Water Unit only			
Description	Heating	Cooling	Notes
5			
6			
			5 minus (-) 6
7			
8			
			7 minus (-) 8

**NOTES:**

1. "Temp" always refers to temperature
2. Enter temperature in degrees Fahrenheit (°F)
3. Enter pressure in pounds (lbs)

Calculate Heat of Extraction (Absorption) or Heat of Rejection:      Fluid Factor: Use 500 for water, 485 for antifreeze

\_\_\_\_\_ Flow Rate (GPM) X \_\_\_\_\_ Water Temp Difference (°F) X \_\_\_\_\_ Fluid Factor = \_\_\_\_\_ BTUH (HE or HR)

**Installing Contractor: Must submit this completed form.**  
**Fax 517-787-9341, -OR- email to: bmiles@marsdelivers.com.**  
**IMPORTANT: Include customer e-mail so warranty certificate can be sent.**

## Geothermal Heat Pump Start-Up Certification Form

Installer Name \_\_\_\_\_ Company Name \_\_\_\_\_

Company Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_

Phone \_\_\_\_\_ Installer E-Mail \_\_\_\_\_

Customer Name \_\_\_\_\_ Customer E-Mail \_\_\_\_\_

Customer Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_

Phone \_\_\_\_\_ Start-Up Date \_\_\_\_\_

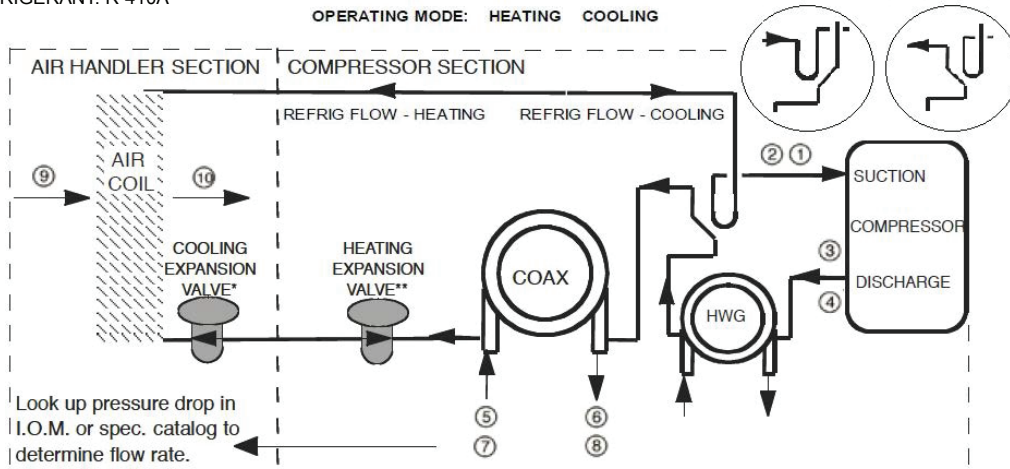
**Loop Type:** \_\_\_ Open \_\_\_ Closed Pressurized \_\_\_ Closed Non-Pressurized Antifreeze Type and % \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

REFRIGERANT: R-410A

OPERATING MODE: HEATING COOLING

HEATING POSITION COOLING POSITION



**PERFORM TESTING WITH HWG OFF**

Look up pressure drop in I.O.M. or spec. catalog to determine flow rate.

\*Cooling expansion valve meters in the cooling mode, and bypasses in the heating mode.  
 \*\*Heating expansion valve meters in the heating mode, and bypasses in the cooling mode.

Description	Heating	Cooling	Notes	Description	Heating	Cooling	Notes
Voltage				1 Suction Line Temp			
5 Water In Temp				2 Suction Line Pressure			
6 Water Out Temp				Saturation Temp			
Temp Change			5 minus (-) 6	Superheat			Sat. Temp - Line Temp
7 Pressure In (lbs)				3 Discharge Line Temp			
8 Pressure Out (lbs)				4 Discharge Line Pressure			
Pressure Drop			7 minus (-) 8	Saturation Temp			
9 Return Air Temp				Subcooling			Sat. Temp - Line Temp
10 Supply Air Temp			9 minus (-) 10				
Temp Change							

**NOTES:**

1. "Temp" always refers to temperature
2. Enter temperature in degrees Fahrenheit (°F)
3. Enter pressure in pounds (lbs)

Calculate Heat of Extraction (Absorption) or Heat of Rejection: \_\_\_\_\_ Fluid Factor: Use 500 for water, 485 for antifreeze

\_\_\_\_\_ Flow Rate (GPM) X \_\_\_\_\_ Water Temp Difference (°F) X \_\_\_\_\_ Fluid Factor = \_\_\_\_\_ BTUH (HE or HR)

**Installing Contractor: Must submit this completed form.**  
**Fax 517-787-9341, -OR- email to: [bmiles@marsdelivers.com](mailto:bmiles@marsdelivers.com).**  
**IMPORTANT: Include customer e-mail so warranty certificate can be sent.**