

Start Up Form

Start Up Date		Technician		Dealer		
Name	Address					
City	State		Zip Code			
Equipment Information						
Indoor Unit		Coil		Outdoor Unit		
Model#		Model#		Model #		
Serial#		Serial#		Serial #		
Fltr size		TXV#		Heat Strips		
Fltr type		T stat		Cond Pump		
Fltr qty						
Voltage						
System Low Voltage		OD Line Voltage		ID Line Voltage		
Blower Information						
Fan Speed Settings for PSC and X-13 Motors (Standard ECM)						
Gas Furnace Heating Spd Tap		CFM	AC / HP I stage Fan Spd Tap		CFM	
AC/HP ADD-ON Calculated CFM		AC / HP 2 stage Fan Spd Tap		CFM		
CFM without blower performance chart $CFM = BTU\ Out \div (Temp\ Rise \times 1.08)$			Electric Heat Spd Tap		CFM	
Variable Speed	Gas Furnace Only		Single Piece & ME Air Handlers		MVC Modular Air Handler	
ECM Jumpers	R/A before filter	Coils are included in the blower chart here only			R/A before filter	
Cool	S/A after coil	R/A before filter		R/A before coil		
Adj	S/A before coil	R/A before coil		RA after coil		
Heat	R/A after filter	S/A ducting		S/A ducting		
CFM	Blower Static	Blower static		Blower static		
Refrigerant Information						
Metering Device and Charge						
TXV	Suction Line size	"	Total Length	ft	Line Length Add	
Orifice	Liquid Line Size	"	Coil Refrigerant Add	oz	Total Refrigerant	
Cooling Information						
Condenser Dry-Bulb	Liquid Pressure	Sub Cooling		Required	Measured	
Indoor Wet-Bulb	Liquid Line Temp					
Indoor Dry-Bulb	Vapor Pressure	Superheat		Required	Measured	
Evap. Outlet Dry-Bulb	Vapor Line Temp					
Evap. Outlet Wet-Bulb	Temp Drop	TXV = Sub Cooling No TXV = Superheat				
Heating Information						
Heat Pump		Electric Heat		Gas Furnace		
Suction Pressure	Volts x amps = watts	Heat Kit		Low Fire	High Fire / 1 Stage	
Suction Temp		Supply Air Temp	Supply Air Temp			
Liquid Line Pressure		Indoor Temp	Indoor Temp			
Liquid Line Temp		Temp Rise	Temp Rise			
Indoor Temp		Heater Amps:		Gas Pressure	"wc	"wc
Outdoor Temp		Circuit 1	Inlet Gas Pressure	LP:	"wc	NAT: "wc
Supply Air Temp		Circuit 2	Venting			
Temp Rise		Circuit 3				
Req'd Subcooling		Circuit 4				
Subcooling		1 watt = 3.412 BTU		Total Length	ft	
Certified Technician's Signature:						
Customer's Signature:						

Start Up Form

Start Up Sheet Instructions

Suggest following the outline below for getting start up measurements. Estimated time to obtain all measurements is approximately 50 minutes. 20 minutes for gas furnace/air handler only. 30 minutes for AC. 50 minutes for HP.

Emergency Heat Measurements.

1. Set thermostat 10° above room temperature
2. Allow system to operate for 10 minutes prior to taking any measurements
3. Obtain amperage for each heat strip
4. Obtain return air temperature at equipment duct connection to Air Handler
5. Obtain supply air temperature at closest indoor register
6. Adjust fan speed to meet temperature rise requirements per the equipment data plate

Note: Electric furnace only applications take static pressure at this time

Gas Furnace Measurements

1. Set thermostat 10° above room temperature
2. Set manifold pressure
3. Allow system to operate for 10 minutes prior to taking any measurements
4. Review furnace data plate for proper temperature rise range
5. Obtain return air temperature at equipment duct connection to Air Handler
6. Obtain supply air temperature at closest indoor register
7. Make any necessary fan motor heat speed changes to obtain required temperature rise per the furnace data plate

Note: If this is a heat only application take static pressures at this time

Heat Pump Measurements (HEATING MODE)

1. Set thermostat 10° above room temperature
2. Obtain static pressure per the start up sheet
3. Make any fan speed corrections to get proper airflow (400CFM per ton)
3. Allow system to operate for 10 minutes prior to taking any measurements
4. Obtain return air temperature at equipment duct connection at indoor equipment
5. Obtain supply air temperature at closest indoor register
6. Obtain Outdoor Ambient Temperature
7. Obtain liquid line temperature and pressure at king valve
8. Obtain true suction pressure (True Port of OD Unit)
9. Obtain suction temperature from condenser coil suction line (Between condenser coil and reversing valve)
10. Calculate subcooling and superheat

Heat Pump/AC Measurements (COOLING MODE)

1. Set thermostat 10° below room temperature (NON HP applications only remove OD unit disconnect)
2. Static pressure and fan speeds set prior in heating mode
 - 2a. NON HP applications only - verify static pressure and set fan speed for cooling to obtain 400 CFM per ton
 - 2b. Insert disconnect into disconnect panel after verifying airflow
3. Allow system to operate for 10 minutes prior to taking any measurements
4. Obtain return air temperature at equipment duct connection at indoor equipment
5. Obtain entering wet bulb temperature
6. Obtain supply air temperature at closest indoor register
7. Obtain Outdoor Ambient Temperature
8. Obtain liquid line temperature and pressure at king valve
9. Obtain suction pressure at true suction port, suction temperature at king valve
10. Calculate subcooling and superheat