Y-Series Pre-Commissioning Checklist

Checklist to prepare for commissioning, use prior to commissioning unit

Project Name : _____

Model # _____

Serial # _____

Static Pressure:		
Existing Static Pressure Reading (should not be above 0.6*) (Fill in):		
New Unit Static Pressure Reading (Fill in):		
*If existing unit has a PSC motor installed and the static pressure is above 0.6, add supply and return duct as needed.		
Air Handler checklist, prior to install:		
New Unit Holding Charge - double check the unit to make sure charge is holding prior to install	Y/N	
Check for Position of New Air Handler	Down-flow*	Coil flip /temp sensor change needed*
	Horizontal-right*	
	Horizontal-left	No change needed
	Upflow	
*See Install instructions for labeling and removing temp sensors from the coil prior to flipping coil		
Replace temp sensors if removed for step 3 above ☐		
Lineset guidelines		
Accurately measure the existing refrigerant lines if they are over 25' and calculate the additional footage.		
When brazing use Nitrogen purge throughout the process.		
Torque down the flare nuts per industry standards.		
Pressurize the lineset only, leak test the fittings and the braze connections, and verify that the system is 100% leak free.		
Open the valves on the indoor unit only. Pull triple evacuation on the indoor coil and linesets.		
Charging guidelines		
If the line set is over 25' add .69oz per foot.	Lineset Length _____	Added charge _____(oz)
ex. 50' line set is over by 25' multiply the overage 25' x .69 =17.25oz of additional charge is required		
Communication Wiring guidelines		
When connecting S1 and S2 with thermostat wire there is a greater chance of communication error. Shielded stranded communication wire is strongly recommended.		
Check for Splices ☐		
If wire nuts have been used, remove and replace them with either butt connectors or run a new wire. ☐		

AHU wiring connecting guide

WARNING: Make sure the power is off before making any changes to the dip switches.

Scenario	Controller	Indoor unit	Connection between Indoor and outdoor	Outdoor unit	AC Pro AHU DIP Switch		AC Pro ODU DIP Switch
					SW1-1	SW1-4	S1-2
1 (Recommended)	AC Pro Wired Controller (Standard)	AC Pro AHU	RS485: S1/S2	AC Pro ODU	OFF (Default)	OFF (Default)	OFF (Default)
2	24V Thermostat	AC Pro AHU	RS485: S1/S2	AC Pro ODU	ON	OFF (Default)	OFF (Default)
3	24V Thermostat	AC Pro AHU	24V: R/C/B/Y1/Y2/G/W	AC Pro ODU	ON	ON	ON
4	24V Thermostat	AC Pro AHU	24V: R/C/B/Y1/Y2/G/W	Third-Party ODU	ON	ON	n/a
5	24V Thermostat	Third-Party AHU or A-COIL	24V: R/C/B/Y1/Y2/G/W	AC Pro ODU	n/a	n/a	ON

Continue on back

Dip Switch Settings (Fill in):			
Thermostat brand/model* (Fill in) :			
*If a thermostat other than the factory controller is being used, make sure it is a 2 stage cooling stat.			
When Y2 is energized, the blower will run at high speed. When Y1 is energized, the blower will be reduced to medium speed. (Do not jumper out Y1 and Y2) ☐			
Once the thermostat is determined, set it up as a heat pump, and set the reversing valve to energize in heat using the B setting terminal, and tell the thermostat the reversing valve is energized in heat. ☐			
Start up guidelines			
Plug in the Smart Diagnostic Tool - AC Pro ID # 77464 (not required, but strongly advised)			
Once all of the above has been confirmed turn on the power to both the indoor and outdoor units, and set the system to cooling mode.			
Let the system run for approximately 15 minutes.			
Check your manifold gauge pressures and compare them to the pressure chart for basic charge verification.			
Manifold gauge pressures:		High side pressure _____	Low side pressure _____
Using the Smart Diagnostic Tool measure the following:			
Dry Bulb/Wet Bulb (Fill in):			
Outside Air Dry Bulb (Fill in):			
Target Frequency (Fill in):			
Actual Running Frequency (Fill in):			
Amp/Current Draw (Fill in):			
T1 (Room temp sensor): _____	T2 (Indoor coil temp sensor): _____	T3 (Outdoor coil temp sensor): _____	T4 (Outdoor Ambient Temperature): _____
T5/TD (Compressor Discharge Temperature Sensor): _____			

For Tech Support Assistance please have this checklist completed first then call 855-972-2776