A/C Unit Start-up Report

Applicable to units: ControlAIR Series PW, SW, CW, TW, CA, SA, TA, and HW
PreciseAIR Series PPW, PCA, and PHW
CoolAIR Series BW, BA, and BHW

Start-up date	
Equipment serial number	
Equipment model number	
Customer Name / Location	
Customer PO number	
Report by (name and date)	

This report must be completely filled out during start-up and returned to AIR. Failure to return this sheet may limit or cause delays in warranty coverage. Items not applicable should be marked "N/A".

Check the boxes below to confirm that the item has been checked/executed.

Inspection

- ☐ The unit has been visually inspected and any damage listed under the Special Notes section.

Mechanical

- ☐ Air discharge ducts are installed and secured.
- ☐ The blower(s) can be operated (no restrictions in the duct or air supply system). Duct work is complete and all dampers are open.
- ☐ Air filters are in place (where applicable).
- ☐ Condensate drain is piped.

Direct expansion, water cooled systems:
ControlAIR Series PW, SW, CW, TW, PreciseAIR Series PPW, and CoolAIR Series BW

- ☐ Condenser water connections are made and tested against leaks.
- ☐ Condenser water flow is available (valves are open and flow is not restricted).

Direct expansion, split systems:
ControlAIR Series SW, CW, TW, CA, SA, TA, PreciseAIR Series PCA, and CoolAIR Series BA

- ☐ The condensing unit and air handler are properly piped.
- ☐ The refrigeration pipes are supported.

Refrigerant lines between condensing unit and air handler:

- ☐ Pressure tested against leaks.
- ☐ Lines were evacuated.
- ☐ System (including field installed lines) is charged with refrigerant.
- ☐ The suction line is insulated.

Electrical

- ☐ Main control panel power wiring connections are terminated.
- ☐ All devices are wired per electrical drawings.
- ☐ Electrical panel is free of debris (check on top of contactors, fuses, PLC, VFD's, power supply, etc.).
- ☐ Check for loose power connections, contactors, motor protectors, distribution blocks, etc.

All instruments are installed properly and wired per the electrical drawings:

- ☐ Electric actuated inline control valves.
- ☐ Room mounted temperature/humidity sensors.
- ☐ Duct mounted temperature/humidity sensors.
- ☐ Smoke detector wire to the unit panel and/or the Customer's fire alarm panel (where applicable).

Check prior to start

- ☐ All manual valves are open.
- ☐ Main panel power (Volts): L1-L2: _____ L1-L3: _____ L2-L3: _____

Blower #1

- ☐ Rotation ok.
- ☐ Pulley alignment
- ☐ Belt tensioning prior to running: _____ (verify against blower sticker)
- ☐ Blower clean of debris
- ☐ Drive and Pulley set screws are tight
- ☐ VFD high limit set to the design fan rpm
- ☐ RPM: _____

Blower #2 (if applicable)

- ☐ Rotation ok.
- ☐ Pulley alignment
- ☐ Belt tensioning prior to running: _____ (verify against blower sticker)
- ☐ Blower clean of debris
- ☐ Drive and Pulley set screws are tight
- ☐ VFD high limit set to the design fan rpm
- ☐ RPM: _____

Direct expansion:
ControlAIR Series PW, SW, CW, TW, CA, SA, TA, PreciseAIR Series PPW, PCA and CoolAIR Series BW, BA

- ☐ Compressor oil level ok to start compressor. Oil level sight glass: _____ %

Direct expansion, water cooled systems:
ControlAIR Series PW, SW, CW, TW, PreciseAIR PPW and CoolAIR Series BW

- ☐ Water cooled condenser supply water: Pressure: _____ Temperature: _____

Direct expansion, air cooled systems:
ControlAIR Series CA, SA, TA, PreciseAIR Series PCA and CoolAIR Series BA

- ☐ Panel power (Volts): L1-L2: _____ L1-L3: _____ L2-L3: _____
- ☐ Ambient air where air cooled condenser is located: :_____ °F
- ☐ Fans rotation ok.

Duct heater (if applicable):

- ☐ Panel power (Volts): L1-L2: _____ L1-L3: _____ L2-L3: _____

Check after 10 minutes running:

- ☐ Refrigerant/water pipes vibration is acceptable.
- ☐ Sheet metal vibration is non-existent or acceptable.

Blower #1:

- ☐ Amps L1:_____ L2:_____ L3:_____ Overload setting: _____ A

Blower #2 (if applicable):

- ☐ Amps L1:_____ L2:_____ L3:_____ Overload setting: _____ A

Direct expansion:
ControlAIR Series PW, SW, CW, TW, CA, SA, TA, PreciseAIR Series PPW, PCA and CoolAIR Series BW, BA

- ☐ Compressor oil level remains at acceptable levels. Oil level sight glass: _____ %
- ☐ Setpoints-> Temperature: _____ RH: _____
- ☐ Total System CFM: _____

Time	CMP 1 Load	CMP 2 Load	Temp. entering coil	Temp. leaving coil	Room Temp.	Room RH	CMP 1 LP	CMP 1 HP	CMP 2 LP	CMP 2 HP

With compressors running at 100%:

CMP #1:

- ☐ Amps L1:_____ L2:_____ L3:_____
- ☐ Overload setting: _____ A
- ☐ Suction pressure: _____ psi
- ☐ Suction temperature: _____ psi
- ☐ Discharge pressure: _____ psi
- ☐ Discharge temperature: _____ °F
- ☐ Calculated superheat: _____ °F

CMP #2 (if applicable):

- ☐ Amps L1:_____ L2:_____ L3:_____
- ☐ Overload setting: _____ A
- ☐ Suction pressure: _____ psi
- ☐ Suction temperature: _____ °F
- ☐ Discharge pressure: _____ psi
- ☐ Discharge temperature: _____ °F
- ☐ Calculated superheat: _____ °F

Air handlers with chilled water:

ControlAIR Series HW, PreciseAIR Series PHW and CoolAIR Series BHW

- ☐ Setpoints-> Temperature: _____ RH: _____
- ☐ Total System CFM: _____
- ☐ Water entering coil temperature: _____ °F

Time	Water Valve Open %	VFD Hz (if used)	Temp. entering coil	Temp. leaving coil	Room Temp.	Room RH

- ☐ Heater is tested and working properly (if applicable). With heater at 100%, gather the data:
  - Heater Power: _____ °F
  - Temperature after the coil: _____ °F
  - Temperature after the heater: _____ °F
- ☐ Blower speed is ok (check if it is carrying condensation water from the coil). Adjust if needed.

Check before leaving the site

- ☐ System was balanced for airflow.
- ☐ Belt tensioning after running for 24h (verify against blower sticker)
  - Blower 1: _____
  - Blower 2: _____
- ☐ All valves caps (including Schrader valves) are in place.
- ☐ All doors are in place and secure.

Direct expansion:

ControlAIR Series PW, SW, CW, TW, CA, SA, TA, PreciseAIR Series PPW, PCA and CoolAIR Series BW, BA

- ☐ The time between same compressor starts is set to the correct value.
- ☐ Communicate bearing lubrication and belt tensioning procedures with maintenance.
  Person's name that you communicated with: _____

Special notes

Please write down any considerations and/or special notes and problems encountered during start-up.

- Was the unit running as expected?
- Is there any unfinished work?
- Does AIR have to go back and finish something?
- Was the system balanced for airflow?
- Which problems did you encounter (sensor, wiring, power, mechanical damage, leaks)?

USE AN EXTRA PAGE IF THE SPACE BELOW IS NOT SUFFICIENT AND ATTACH TO THIS REPORT.