

Asset ID: _____

Walgreens HVAC START-UP & SERVICE DATA INSTRUCTION

COMMERCIAL PACKAGE UNITS 3.0 To 40.0 TONS

Date: 12/18/24 START-UP CHECKLIST

Customer Name: Walgreens 17919

Address: 1900 Cameron St

City: Raleigh State: NC

Model Number: NL090C00B4BAA2 Serial Number: N2K4818434 Zip: 27605

Qualified Start-up Technician: Jeremy Riggs Signature: Jeremy Riggs

HVAC Contractor: AES Mechanical Services Group, INC Phone: 334-252-0380

Address: 2171 AL HWY 229 S Tallassee, AL 36078

Contractor's E-mail Address: chase.edge@aesmech.com

WARRANTY STATEMENT

Johnson Controls/UPG is confident that this equipment will operate to the owner's satisfaction if the proper procedures are followed and checks are made at initial start-up. This confidence is supported by the 30 day dealer protection coverage portion of our standard warranty policy which states that Johnson Controls/UPG will cover parts and labor on new equipment start-up failures that are caused by a defect in factory workmanship or material, for a period of 30 days from installation. Refer to current standard warranty policy and warranty manual found on UPGnet for details.

In the event that communication with Johnson Controls/UPG is required regarding technical and/or warranty concerns, all parties to the discussion should have a copy of the equipment start-up sheet for reference. A copy of the original start-up sheet should be filed with the Technical Services Department.

The packaged unit is available in constant or variable air volume versions with a large variety of custom options and accessories available. Therefore, some variation in the startup procedure will exist depending upon the products capacity, control system, options and accessories installed.

This start-up sheet covers all startup check points common to all package equipment. In addition it covers essential startup check points for a number of common installation options. Depending upon the particular unit being started not all sections of this startup sheet will apply. Complete those sections applicable and use the notes section to record any additional information pertinent to your particular installation.

Warranty claims are to be made through the distributor from whom the equipment was purchased.

EQUIPMENT STARTUP

Simplicity PC is required to complete the start-up. Simplicity PC software can be downloaded from www.york.com.

A copy of the completed start-up sheet should be kept on file by the distributor providing the equipment and a copy sent to:

Johnson Controls/UPG
Technical Services Department
5005 York Drive
Norman, OK 73069

	YES OR NO
QC Checks _____	
Accessories installed _____	
Float switch installed _____	
Costgards Prepped, Kit inside Cabinet _____	

REFERENCE

General Inspection		Completed	See Notes
Unit inspected for shipping, storage, or rigging damage		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unit installed with proper clearances		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unit installed within slope limitations		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Refrigeration system checked for gross leaks (presence of oil)		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Terminal screws and wiring connections checked for tightness		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Filters installed correctly and clean		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Economizer hoods installed in operating position		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Condensate drain trapped properly, refer to Installation Manual		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Economizer damper linkage tight		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gas Heat vent hood installed		<input checked="" type="checkbox"/>	<input type="checkbox"/>
All field wiring (power and control) complete		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air Moving Inspection		Completed	See Notes
Alignment of drive components		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Belt tension adjusted properly		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Blower pulleys tight on shaft, bearing set screws tight, wheel tight to shaft		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pressure switch or transducer tubing installed properly		<input type="checkbox"/>	<input type="checkbox"/>
Exhaust Inspection Powered <input type="checkbox"/> Barometric Relief <input type="checkbox"/>		Completed	See Notes
Check hub for tightness		<input type="checkbox"/>	<input type="checkbox"/>
Check fan blade for clearance		<input type="checkbox"/>	<input type="checkbox"/>
Check for proper rotation		<input type="checkbox"/>	<input type="checkbox"/>
Check for proper mounting (screen faces towards unit)		<input type="checkbox"/>	<input type="checkbox"/>
Prove operation by increasing minimum setting on economizer		<input type="checkbox"/>	<input type="checkbox"/>
Economizer Inspection Standard <input type="checkbox"/> BAS <input type="checkbox"/>		Completed	See Notes
CO ₂ sensor installed Yes <input type="checkbox"/> No <input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Check economizer setting A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Prove economizer open/close through PC or Control Module		<input type="checkbox"/>	<input type="checkbox"/>
Reheat Mode Normal <input type="checkbox"/> or Alternate <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/>			
Humidistat Location			
Note: BAS System Control Reheat through Intellicomfort/VAV Board			

Blower Information

Blower Motor HP 1.5 FLA 2.1 RPM 862
 Pulley Pitch Diameter 4 Turns Out _____ Final Turns Out _____
 Blower Pulley Pitch Diameter 8 Fixed Sheave

ELECTRICAL DATA

T1 - T2 460 Volts
 Control Voltage 24 Volts
 T2 - T3 460 Volts
 T1 - T3 459 Volts

Device	Nameplate	Measured	AMPS
			List All Three Amperages
Supply Fan Motor #1, 2	<u>2.1</u>		AMPS
Exhaust Motor (Dampers 100%)		<u>1.9, 2.0, 1.9</u>	AMPS
Condenser Fan #1	<u>1.2</u>		AMPS
Condenser Fan #2: (if equipped)		<u>.9, 1.0,</u>	AMPS
Condenser Fan #3: (if equipped)			AMPS
Condenser Fan #4: (if equipped)			AMPS
Compressor #1			AMPS
Compressor #2 (if equipped)	<u>12.2</u>		AMPS
Compressor #3 (if equipped)		<u>11.6, 11.8, 11.7</u>	AMPS
Compressor #4 (if equipped)			AMPS
			AMPS
			AMPS

- VAV units with heat section - simulate heat call to drive VAV boxes and VFD IGV to maximum design airflow position.
- VAV units without heat section - VAV boxes must be set to maximum design airflow position.

OPERATIONAL MEASUREMENTS - STAGING CONTROLS

Verify Proper Operation of Heating/Cooling Staging Controls	
Create a cooling demand at the Thermostat, BAS System or Simplicity PC. Verify that cooling/economizer stages are energized.	<input checked="" type="checkbox"/>
Create a heating demand at the Thermostat, BAS System or Simplicity PC. Verify that heating stages are energized.	<input checked="" type="checkbox"/>
Verify Proper Operation of the Variable Frequency Drive (If Required)	
Verify that motor speed modulates with duct pressure change.	<input checked="" type="checkbox"/>

FINAL - INSPECTION

Verify that all operational control set points have been set to desired value. Scroll through all setpoints and change as may be necessary to suit the occupant requirements.	<input checked="" type="checkbox"/>
Verify that all option parameters are correct. Scroll through all option parameters and ensure that all installed options are enabled in the software and all others are disabled in the software. (Factory software settings should match the installed options)	<input type="checkbox"/>
Verify that all access panels have been closed and secured	<input checked="" type="checkbox"/>

OBSERVED PRODUCT DEFICIENCIES & CONCERNS:

OPERATING MEASUREMENTS - COOLING

Stage	Discharge Pressure	Discharge Temp.	Liquid Line Temp. ¹	Subcooling ²	Suction Pressure	Suction Temp.	Superheat
First	358 #	135 °	139 °	5 °	95 #	48 °	20 °
Second (if equipped)	#	°	°	°	#	°	°
Third (if equipped)	#	°	°	°	#	°	°
Fourth (if equipped)	#	°	°	°	#	°	°
Reheat 1st Stage	#	°	°	°	#	°	°

1. Liquid temperature should be taken before filter/drier.
2. Subtract 10 psi from discharge pressure for estimated liquid line pressure

Outside air temperature	69	°F db	53	°F wb	20%	%RH
Return Air Temperature	71	°F db	58	°F wb	35%	%RH
Mixed Air Temperature		°F db		°F wb		%RH
Supply Air Temperature	50	°F db	36	°F wb	30%	%RH

REFRIGERANT SAFETIES

Action	Completed	See Notes
Prove Compressor Rotation (3 phase only) by gauge pressure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prove High Pressure Safety, All Systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prove Low Pressure Safety, All Systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>

OPERATING MEASUREMENTS - GAS HEATING

Fuel Type: Natural Gas *Split H.P. w/ elect. Heat* LP Gas

Action	Completed	See Notes
Check for gas leaks	<input type="checkbox"/>	<input type="checkbox"/>
Prove Venter Motor Operation	<input type="checkbox"/>	<input type="checkbox"/>
Prove Primary Safety Operation	<input type="checkbox"/>	<input type="checkbox"/>
Prove Auxiliary Safety Operation	<input type="checkbox"/>	<input type="checkbox"/>
Prove Rollout Switch Operation	<input type="checkbox"/>	<input type="checkbox"/>
Prove Smoke Detector Operation	<input type="checkbox"/>	<input type="checkbox"/>
Manifold Pressure	Stage 1	IWC
	Stage 2 (If Equipped)	IWC
	Stage 3 (If Equipped)	IWC
Supply gas pressure at full fire	IWC	<input type="checkbox"/>
Check temperature rise ¹	IWC	<input type="checkbox"/>
	<input type="checkbox"/> measured at full fire	°F

¹ Input X Eff. (BTU output)
1.08 X Temp. Rise