

HVAC Post-Install Survey

Warning

Site Info	Please don't proceed before you double check that you are at the proper site. You can find the site details below.
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Job Site Information

Survey Source	HVAC_Post-Install_Survey_v17
Job Site Address City, State	40 S Cleveland Ave,Columbus,OH,43081
Business name/Franchise	McDonald's
Job Site #	5407
Site ID	IJ-35017-83000-07523-7334
WO #	70289
Date of HVAC Survey	01-31-2025
Technician/Contractor Name	Jason Cannon
Location Check	I hereby confirm that the info above belongs to the site I'm currently in. (If not DO NOT PROCEED and navigate to the proper Work Order email and access the survey from there) Thank You

Post Install Unit Detail

How many units have been replaced at this jobsite?	4
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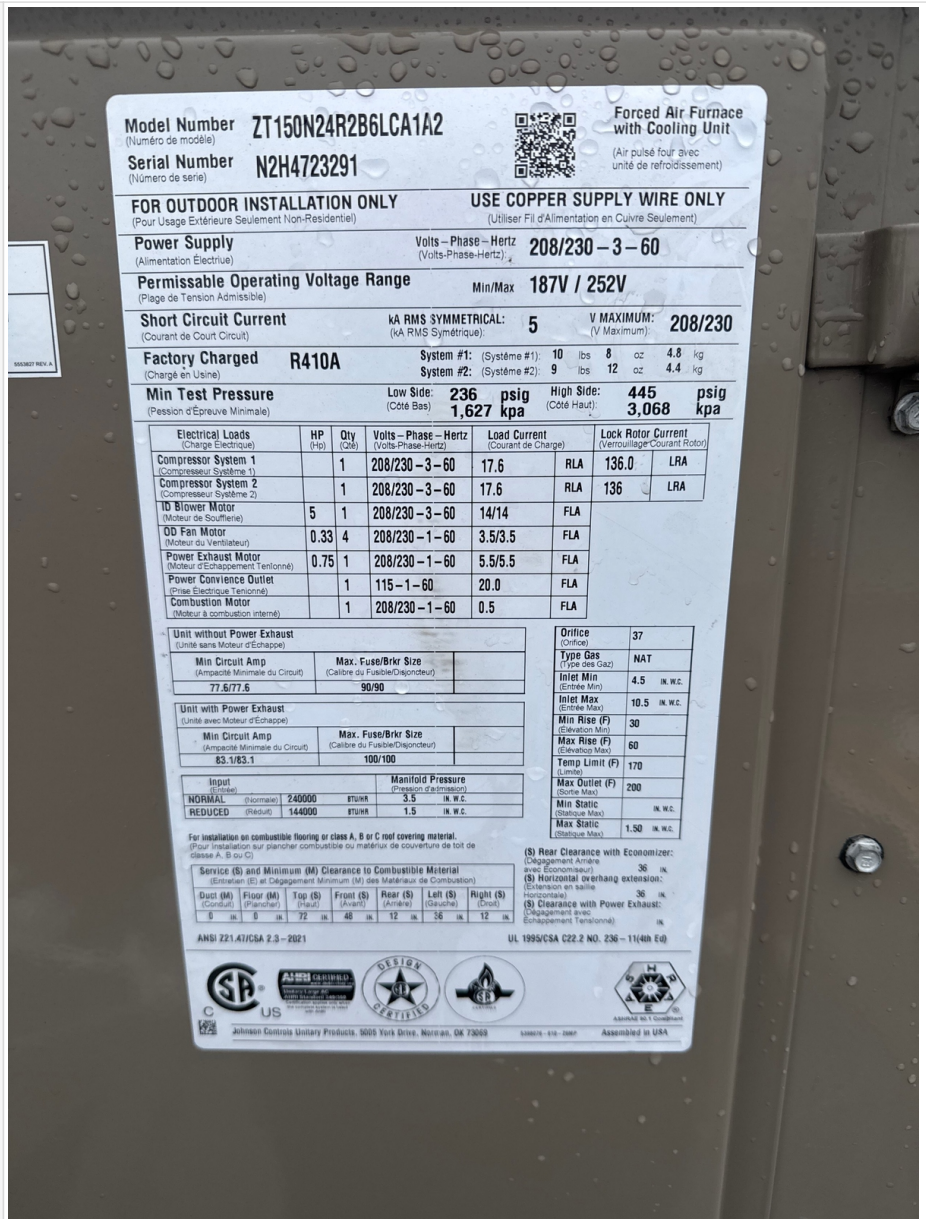
Post-Install Unit Overview #1

Post Install HVAC Unit Details

equipment_type	HVAC
Type of unit?	Packaged Unit
Unit Location	North
Area Served	Play Area
Manufacturer	YORK
Model #	ZT150N24R2B6LCA1A2
Serial #	N2H4723291
Enter the tonnage of the unit	12.50

HVAC Post-Install Survey

Please take a picture of the replaced unit's nameplate



40.123773, -82.947744

01-31-2025 12:45 PM

Replaced Unit Manufacturer

YORK

Replaced Unit Model

ZT150N24R2B6LCA1A2

Replaced Unit Serial Number

N2H4723291

Replaced Unit Tonnage

12.50

Side pictures instructions:

Provided at least two pictures of the unit from opposite ends. The pictures should show:

1. Electrical disconnect and conduit
2. Gas piping
3. Economizer installed

HVAC Post-Install Survey

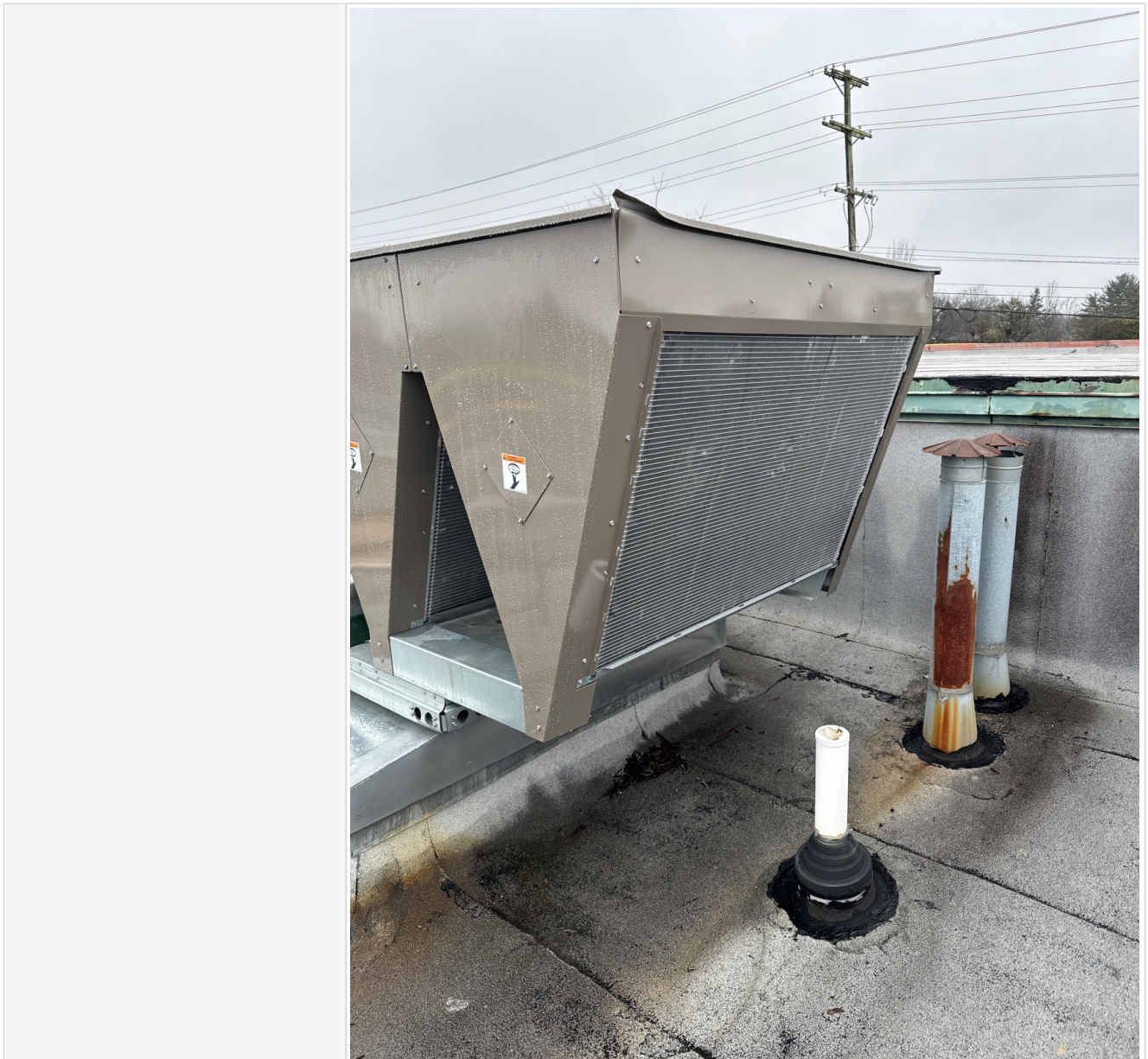
Please take a picture of unit from each side



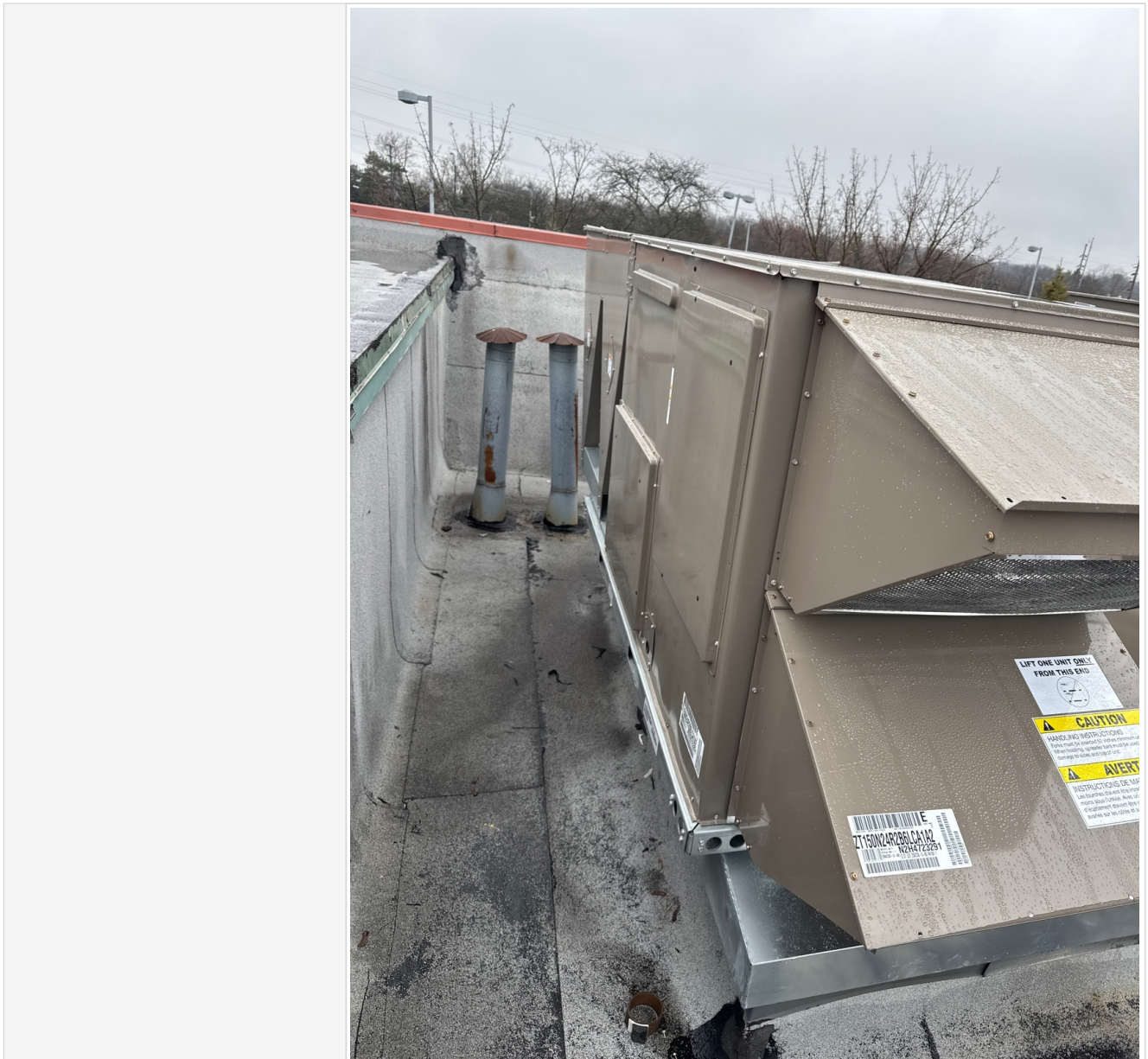
HVAC Post-Install Survey



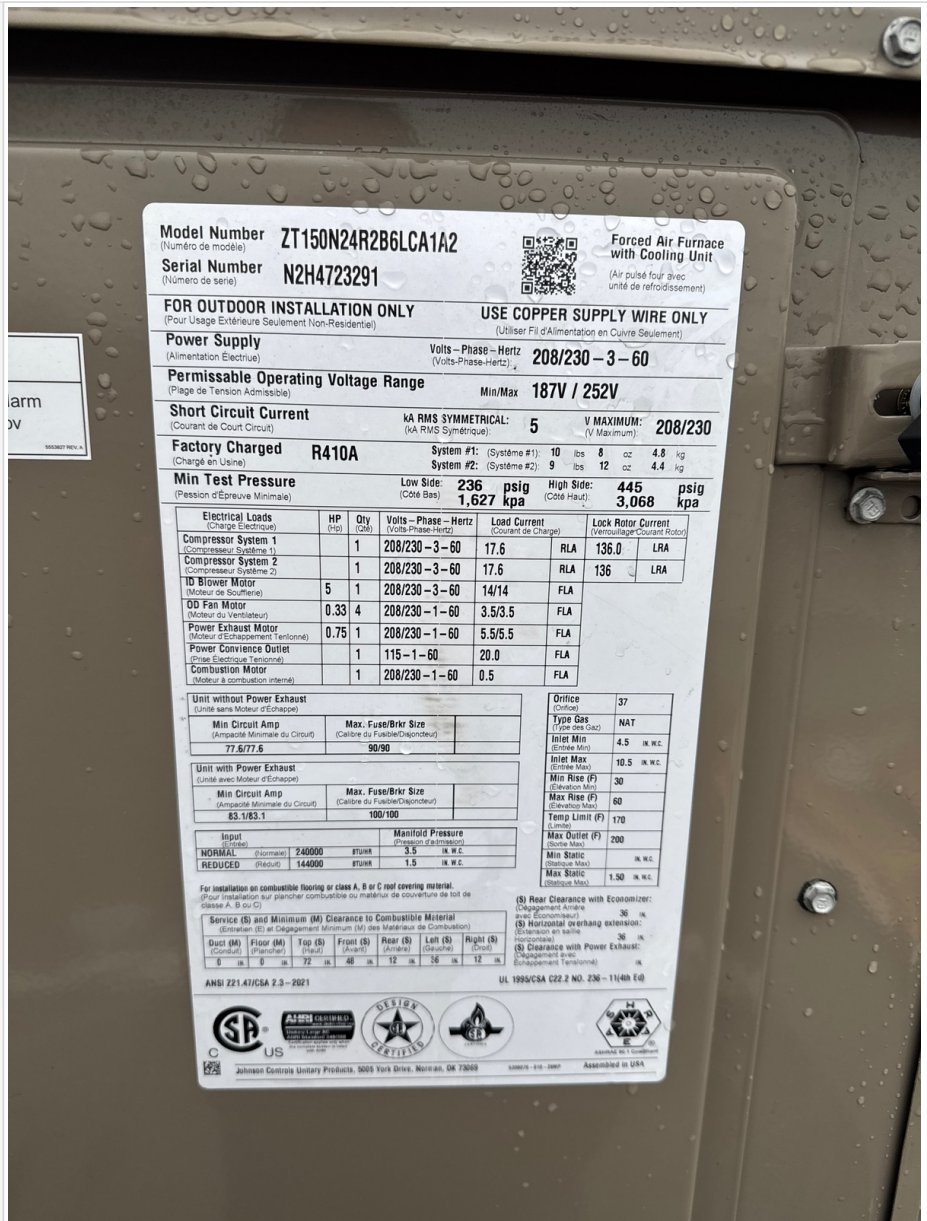
HVAC Post-Install Survey



HVAC Post-Install Survey



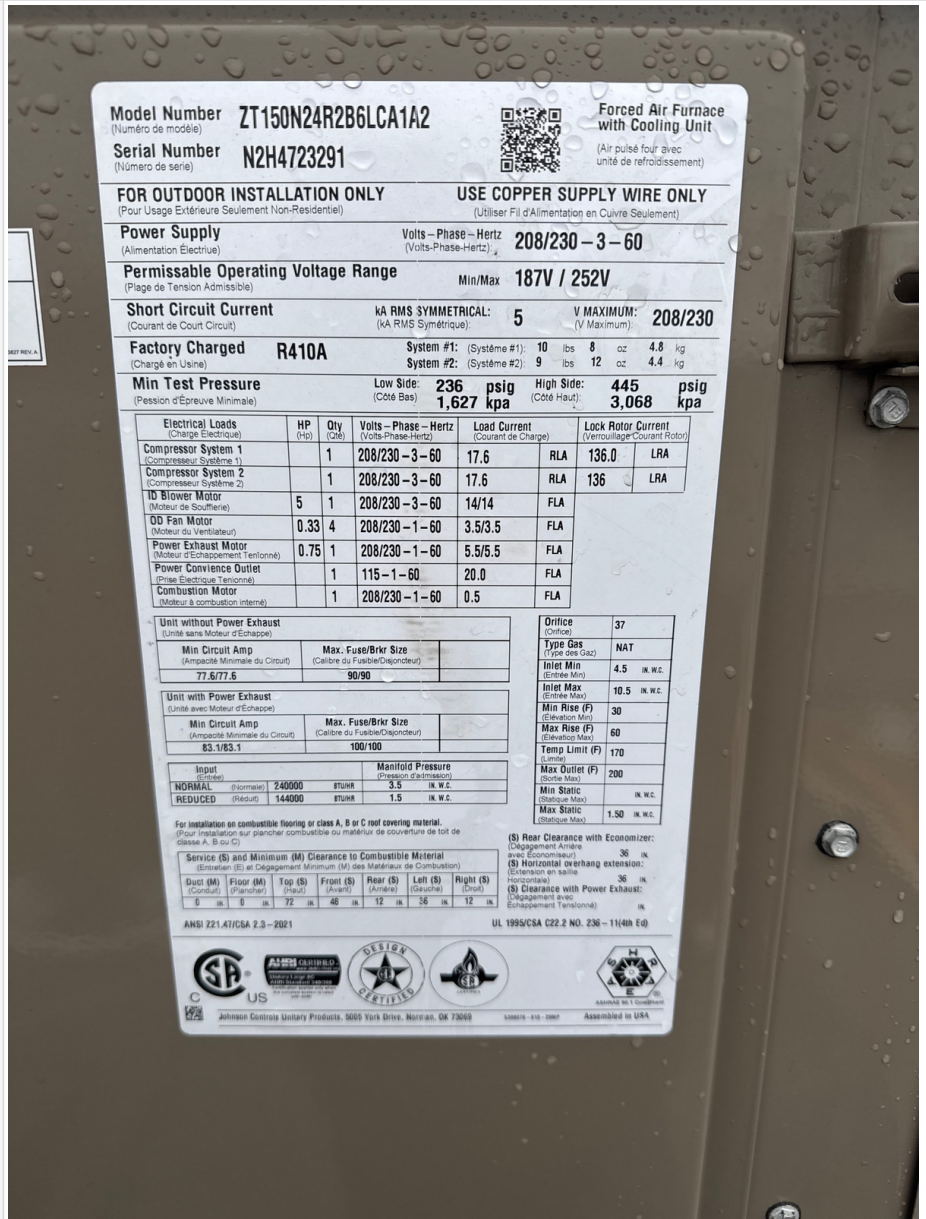
HVAC Post-Install Survey



40.123769, -82.947753

HVAC Post-Install Survey

Please take a picture of the new unit's nameplate with location served written on it

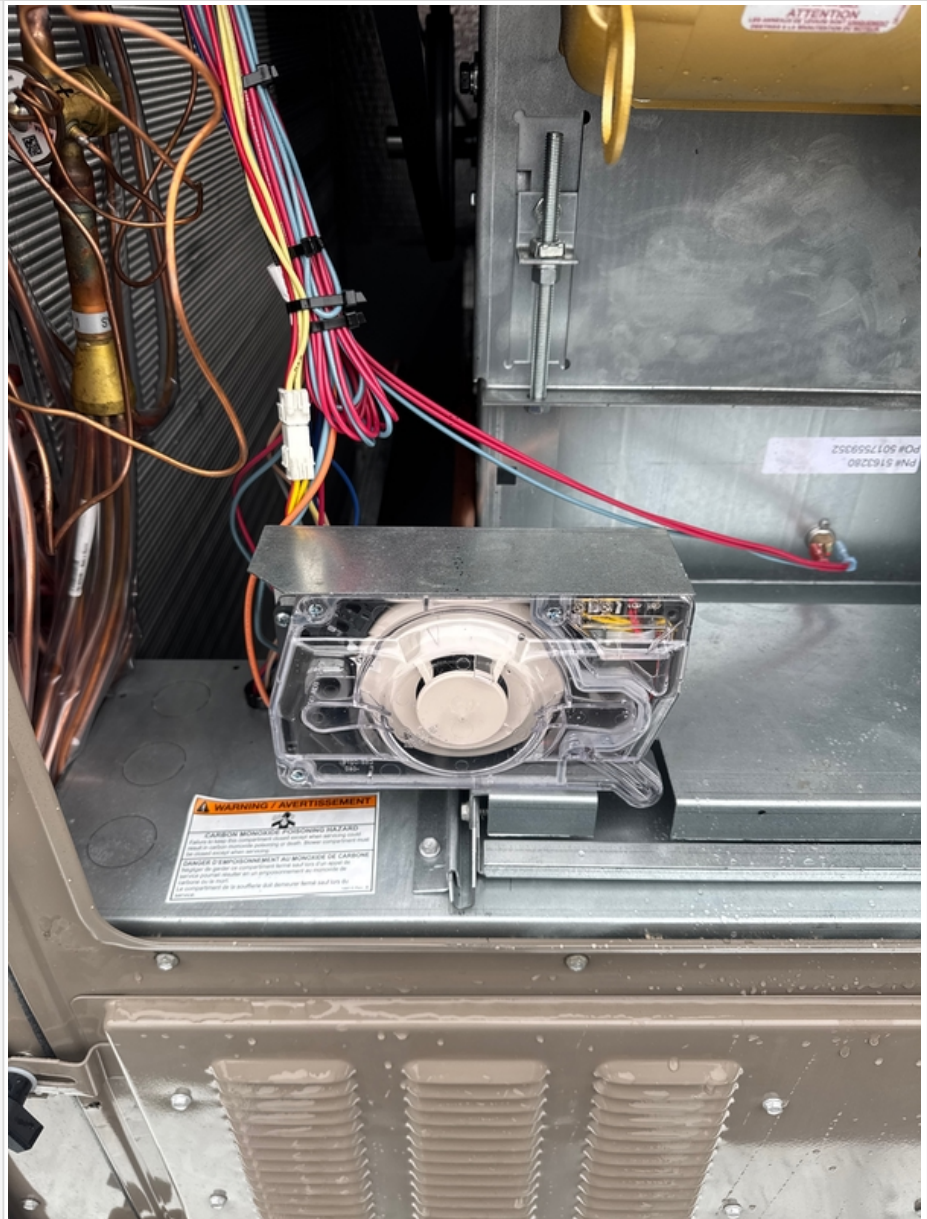


40.123771, -82.947748

01-31-2025 12:48 PM

HVAC Post-Install Survey

Photo of smoke detector to confirm smoke detector has been moved from shipping position



40.123774, -82.947717

HVAC Post-Install Survey

Photo of each unit secured to curb



40.123777, -82.947720

HVAC Post-Install Survey

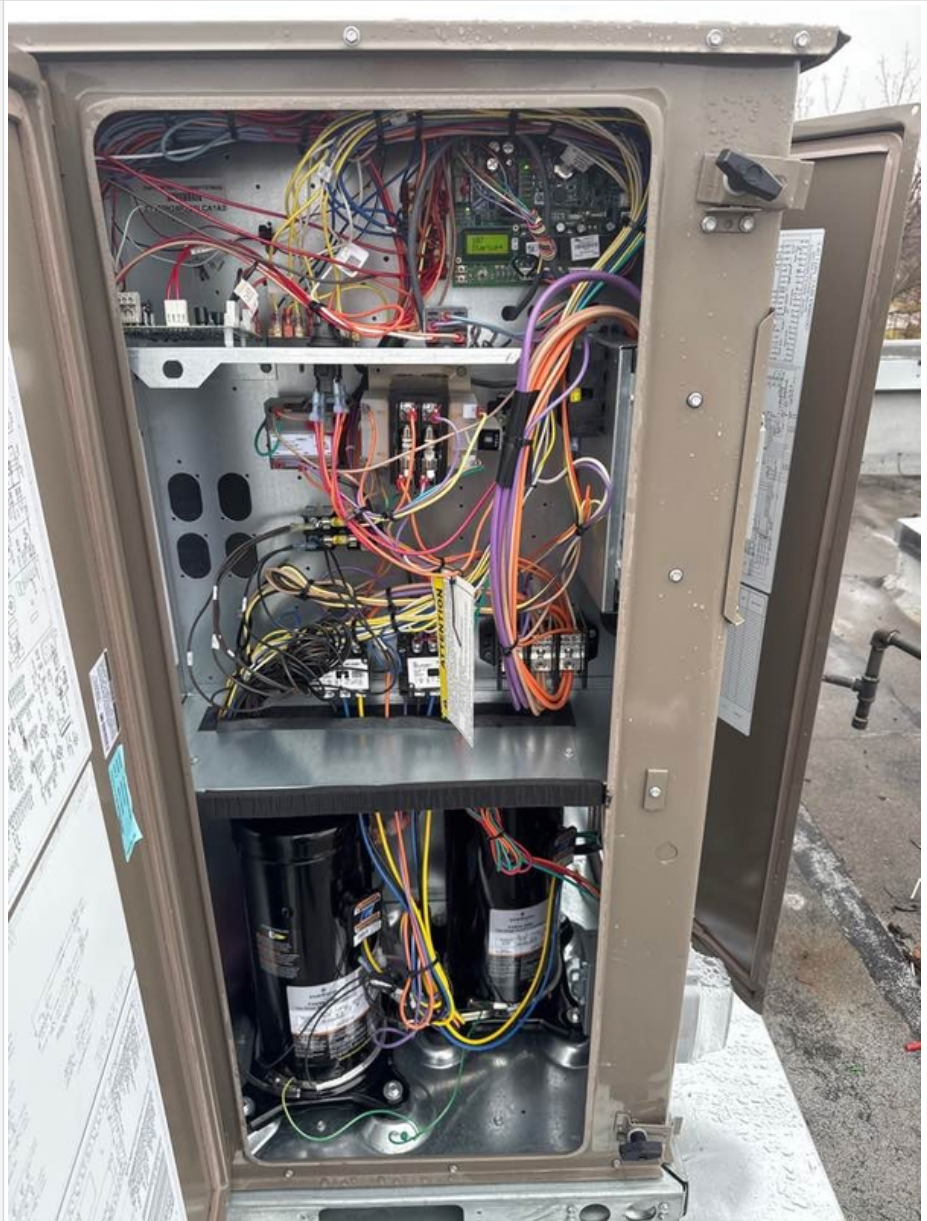
Photo of condensate trap




40.123763, -82.947752

HVAC Post-Install Survey

Photo of ethernet drop



 40.123769, -82.947745

Thermostat pictures instructions:

- Take 2 pictures of the thermostat
1. Take a picture of the wiring to the baseplate
 2. Take a picture of the thermostat installed on the wall

HVAC Post-Install Survey

Please take a picture of the unit's thermostat wiring



 40.123782, -82.947500

HVAC Post-Install Survey

Please take a picture of the unit's thermostat screen showing blue Wi-Fi symbol and physical labeling



 40.123777, -82.947519

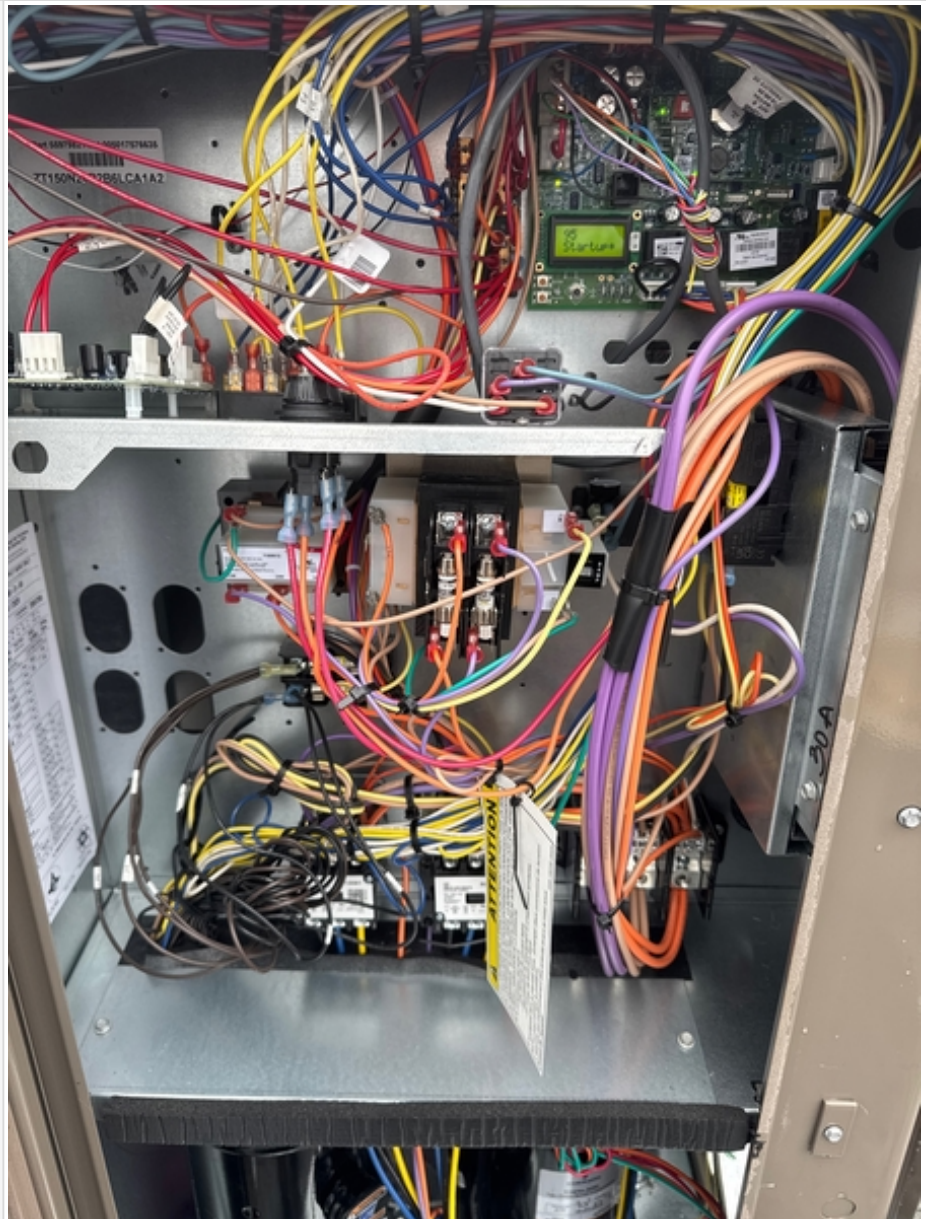
Controller pictures instructions:


Take 3 pictures of different controller screens to prove proper configuration. These are to include:

1. Thermostat control (Adaptive TSTAT disabled).
2. Minimum outside air position
3. Fan speed setups

HVAC Post-Install Survey

Add pictures or screenshots of controller configuration screens




 40.123772, -82.947752

HVAC Post-Install Survey

Add picture of physical economizer installation and economizer configurations in controller



 40.123768, -82.947771

Describe condition of make-up air unit(s) and exhaust fan(s) on-site. Do any appear to need maintenance?

Pre Start Up Checklist

Pre Start Up Checklist


Verify that the coiled Ethernet cable exists inside the HVAC unit

Yes

HVAC Post-Install Survey

Please take a picture of the coiled Ethernet cable inside the HVAC unit





 40.123766, -82.947758

Verify the cable has been dropped through the roof and into the ceiling of location

Yes

HVAC Post-Install Survey

<p>Please take a picture of the cable dropped through the roof and into the ceiling of location</p>	
	<p> 40.123758, -82.947772</p>
<p>Verify that all packaging materials have been removed from unit</p>	<p>Yes</p>
<p>Verify installation of outdoor air hood</p>	<p>Yes</p>
<p>Verify installation of flue exhaust and inlet hood (gas units only)</p>	<p>Yes</p>
<p>Verify that condensate connection is installed per installation instructions</p>	<p>Yes</p>
<p>Verify that all electrical connections and terminals are tight</p>	<p>Yes</p>


HVAC Post-Install Survey

Verify gas pressure to unit gas valve is within specified range (gas units only)	Yes
Check gas pipe for leaks (gas units only)	Yes
Check that indoor air filters are clean and in place	Yes
Check that outdoor air inlet screens are in place	Yes
Verify that unit is level	Yes
Check outdoor fan propeller for location in housing/orifice and verify setscrew is tight	Yes
Verify that scroll compressors are rotating in the correct direction	Yes
Verify installation of thermostat/space sensor	Yes
Verify configuration values for electronic controls (based on Control set up checklist)	Yes
Verify that crankcase heaters have been energized for at least 24 hours	Yes
Verify convenience outlet is wired	Yes
Verify transformer tabs incorrect location. Voltage across RC should be between 25-27 Volts	Yes
Verify economizer moves freely without binding on wires or filters rack	Yes
Verify fan and blower set screws tightened and built aligned	Yes

HVAC Post-Install Survey

Please take photos of completed back of manual warranty sheets (note electrical values below can be taken from this)



 40.123762, -82.947766

Start Up - Electrical	Start Up - Electrical
Supply Voltage L1-L2	212.00
Supply Voltage L2-L3	212.00
Supply Voltage L3-L1	210.00
Compressor Amps Speed 1 - 2500 rpm L1	12.50
Compressor Amps Speed 1 - 2500 rpm L2	12.50
Compressor Amps Speed 1 - 2500 rpm L3	12.60

HVAC Post-Install Survey


Compressor Amps Speed 2 - 4500 rpm L1	
Compressor Amps Speed 2 - 4500 rpm L2	
Compressor Amps Speed 2 - 4500 rpm L3	
Electric Heat Amps L1 (if applicable)	
Electric Heat Amps L2 (if applicable)	
Electric Heat Amps L3 (if applicable)	
Supply Fan Amps at Max Speed L1	3.50
Supply Fan Amps at Max Speed L2	3.50
Supply Fan Amps at Max Speed L3	3.40
Start Up Temperatures	Start Up Temperatures
Outdoor Air Temperature F Dry Bulb	45.00
Return Air Temperature F Dry Bulb	70.00
Cooling Supply Air Temperature F Dry Bulb (Ideal differential 20F (+/- 5F))	50.00
Gas Heat Supply Air Temperature F (if applicable) (Ideal differential 20F (+/- 5F))	125.00
Electric Heat Supply Air Temperature F (if applicable) (Ideal differential 20F (+/- 5F))	0.00
Start Up Pressures	Start Up Pressures
Gas Inlet Pressure (in wg)	10.00
Gas Manifold Pressure Stage 1 (in wg)	1.50
Gas Manifold Pressure Stage 2 (in wg)	3.50
Refrigeration Suction Circuit A (psig)	130.00
Refrigeration Suction Circuit A Superheat deg F	15.00
Refrigeration Discharge Circuit A (psig)	212.00
Refrigeration Discharge Circuit A Subcooling deg F	10.00

HVAC Post-Install Survey

Verify refrigerant charge using charging charts	Yes
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Post-Install Unit Air Flow #1

Section 1

Is the economizer fully operational?	Yes
	 40.123789, -82.947705
Outside air intake damper minimum position: (Target: X> 5%)	6

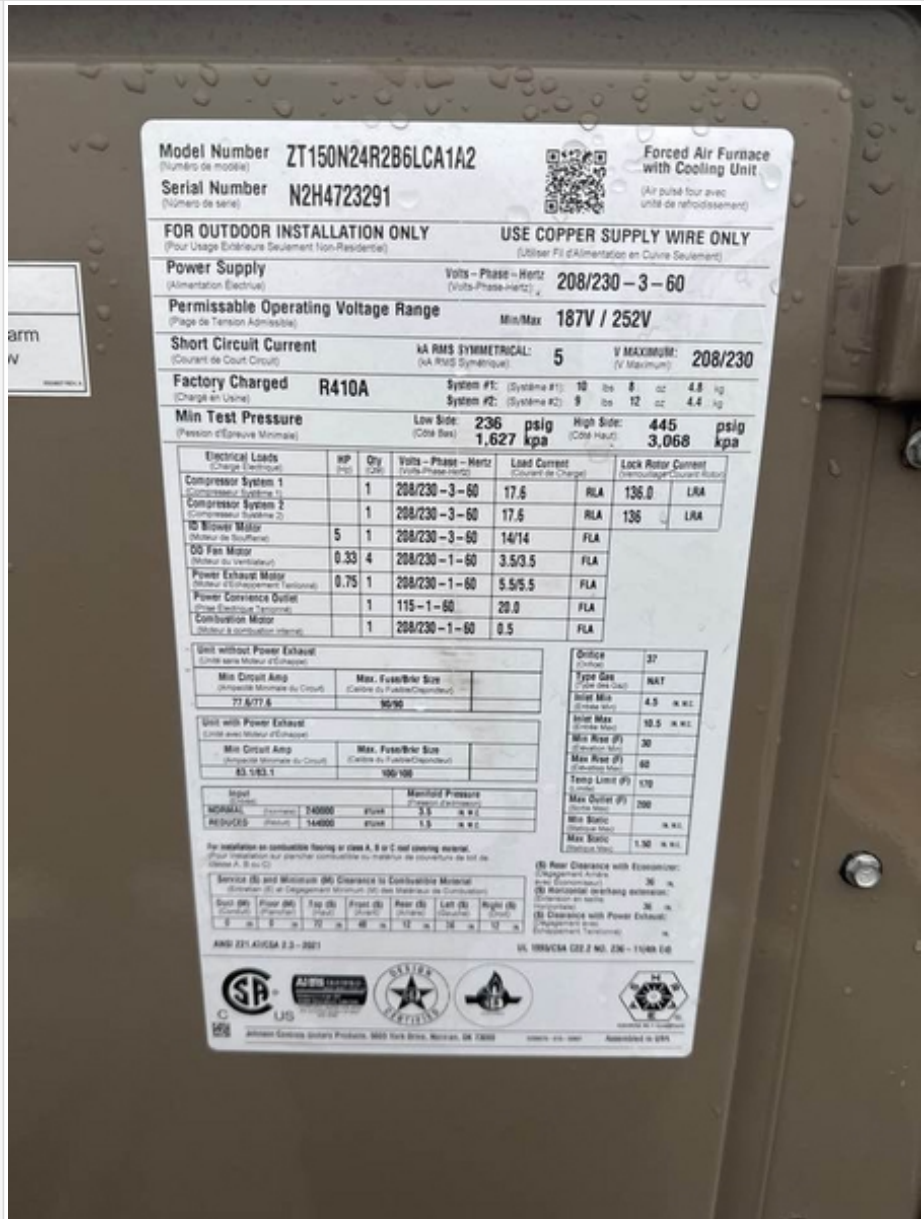
Post-Install Unit Connectivity #1

RTU Post Install Survey

HVAC Serial Number	N2H4723291
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HVAC Post-Install Survey

Take a photo of the HVAC nameplate



40.123775, -82.947745

01-31-2025 01:14 PM


Area served by HVAC

PLAY AREA

HVAC Post-Install Survey

Take a photo of the RTU number
(It may be handwritten on the RTU
or on a decal/sticker)



 40.123768, -82.947739

Where is the RTU located on site?	ROOF
Type of RTU	Other
Other Type of RTU	YORK
Take a photo of the HVAC RTU controller display - showing the MAC Address you entered	
Take a photo of the HVAC RTU controller display - showing the BAUD rate you entered	
Take a photo of the HVAC RTU controller display - showing the BAS Protocol you picked	

HVAC Post-Install Survey

Take a photo of the HVAC RTU controller - showing the BAS terminals wired with 3 wires distinctively colored	
Take a photo of the BACnet router - showing the COM1 terminals with 3 wires distinctively colored	
Take a photo of the BACnet router - showing the Ethernet port's 2 LEDs illuminated	
Take a photo of the BACnet router - showing the power terminals connected to the DC power supply	
Take a photo of the BACnet router - showing the 6 front LEDs illuminated	
Take a photo of the BACnet router - showing the label printed by Budderfly	
Take a photo of the Network Switch in Budderfly's network enclosure - showing the Ethernet port connected to the BACnet router from the other end of the cable	
Take a photo of the ethernet cable plugged into the Lennox Controller	
Take a photo of the ethernet cable plugged into the Budderfly Network Switch	
A Photo of the Lennox Controller after successful connection and the WIFI LED is steady green	
Instruction	The remaining questions require you uploading screenshots from the core controller app. You need screens for the "Network Setup Option" and the following parameters: Network, Device Instance, Control Mode, IP Configuration, Remote Service Access.
Take a screenshot of the core controller app after you pair the RTU successfully	
Take a screenshot of the core controller app (Network Setup) - "Network Setup Option"	
Take a screenshot of the core controller app (Network Setup) - "Network" parameter	
Take a screenshot of the core controller app (Network Setup) - "Device Instance" parameter	
Take a screenshot of the core controller app (Network Setup) - "Control Mode" parameter	

HVAC Post-Install Survey

Take a screenshot of the core controller app (Network Setup) - "IP Configuration" parameter	
Take a screenshot of the core controller app (Network Setup) - "Remote Service Access" parameter	
Instruction	We need clear indication that the cable was run for each HVAC unit. If there are 4 HVAC units then 4 cables are to be run and pics of each cable needs to be included in the survey.
Please provide pics of the Ethernet cable run from the connectivity switch to the HVAC unit(s)	
Please contact the Budderfly Support team at 475-270-4895 with any issues during install and for validating that a proper checkout has been completed.	

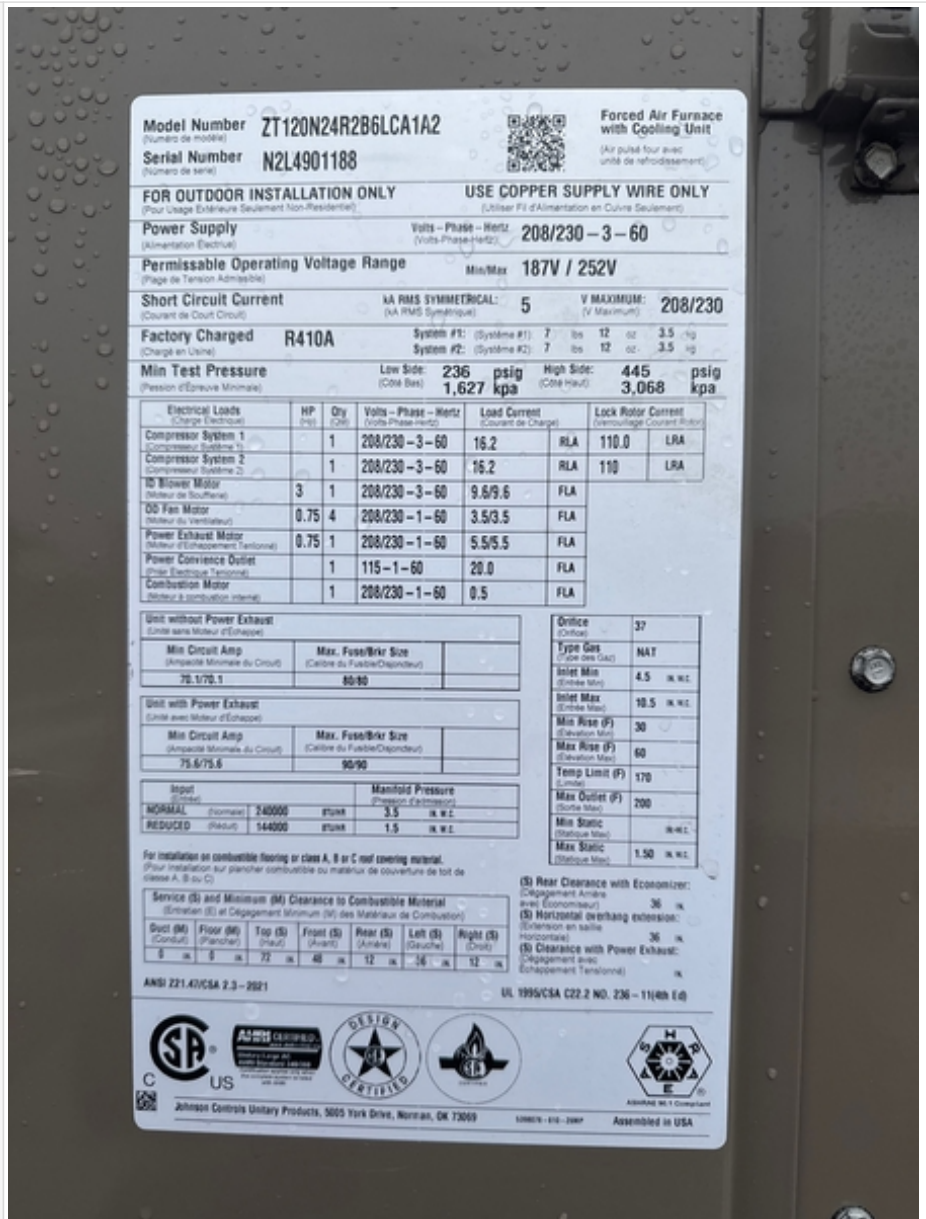
Post-Install Unit Overview #2

Post Install HVAC Unit Details

equipment_type	HVAC
Type of unit?	Packaged Unit
Unit Location	East
Area Served	Dining Room
Manufacturer	YORK
Model #	ZT120N24R2B6LCA1A2
Serial #	N2L4901188
Enter the tonnage of the unit	10.00

HVAC Post-Install Survey

Please take a picture of the replaced unit's nameplate



	40.123787, -82.947678	01-31-2025 01:19 PM
Replaced Unit Manufacturer	YORK	
Replaced Unit Model	ZT120N24R2B6LCA1A2	
Replaced Unit Serial Number	N2L4901188	
Replaced Unit Tonnage	10.00	
Side pictures instructions:	<p>Provided at least two pictures of the unit from opposite ends. The pictures should show:</p> <ol style="list-style-type: none"> 1. Electrical disconnect and conduit 2. Gas piping 3. Economizer installed 	

HVAC Post-Install Survey

Please take a picture of unit from each side



HVAC Post-Install Survey



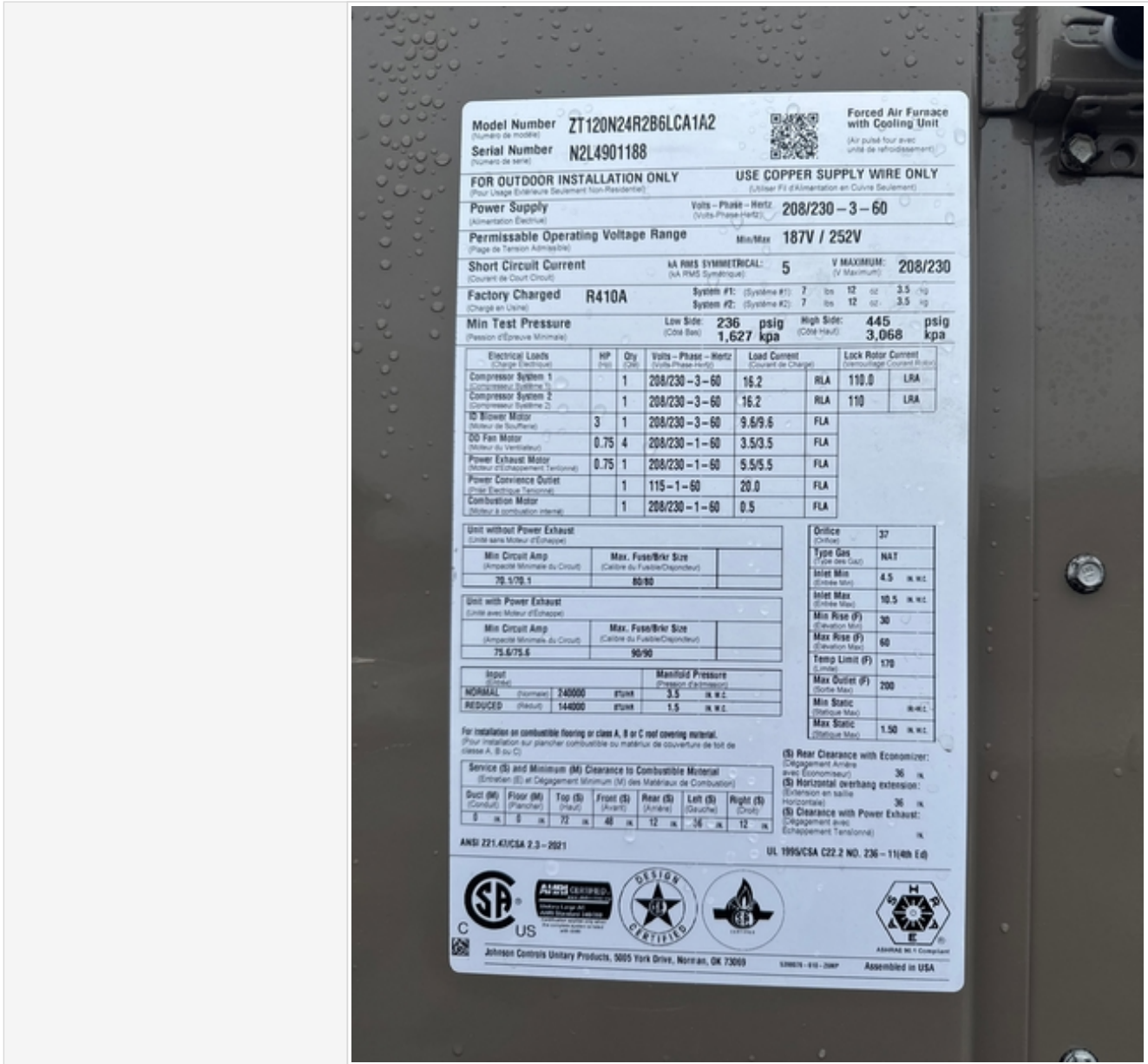
HVAC Post-Install Survey



HVAC Post-Install Survey



HVAC Post-Install Survey



Model Number ZT120N24R2B6LCA1A2
Serial Number N2L4901188

FOR OUTDOOR INSTALLATION ONLY USE COPPER SUPPLY WIRE ONLY

Power Supply 208/230-3-60
Permissible Operating Voltage Range 187V / 252V

Short Circuit Current 5
Factory Charged R410A
Min Test Pressure 236 psig / 1,627 kpa

Electrical Leads	HP	Qty	Volts-Phase-Wertz	Load Current	Lock Rotor Current
Compressor System 1	1	1	208/230-3-60	16.2	110.0 LRA
Compressor System 2	1	1	208/230-3-60	16.2	110 LRA
10 Blower Motor	3	1	208/230-3-60	9.6/9.6	FLA
50 Fan Motor	0.75	4	208/230-1-60	3.5/3.5	FLA
Power Exhaust Motor	0.75	1	208/230-1-60	5.5/5.5	FLA
Power Convenience Outlet	1	1	115-1-60	20.0	FLA
Combustion Motor	1	1	208/230-1-60	0.5	FLA

Unit without Power Exhaust
 Min Circuit Amp: 75.978.1
 Max. Fuse/Bktr Size: 90/90

Unit with Power Exhaust
 Min Circuit Amp: 75.675.6
 Max. Fuse/Bktr Size: 90/90

Input / **Manifold Pressure**
 NORMAL: 140000 psf / 3.5 in. w.c.
 REDUCED: 140000 psf / 1.5 in. w.c.

Service (S) and Minimum (M) Clearance to Combustible Material

Duct (D)	Floor (F)	Top (T)	Front (F)	Rear (R)	Left (L)	Right (R)
8 in	8 in	72 in	48 in	12 in	36 in	12 in

Clearance with Economizer:
 (S) Rear Clearance with Economizer: 36 in.
 (S) Horizontal overhang extension: 36 in.
 (S) Clearance with Power Exhaust: 36 in.

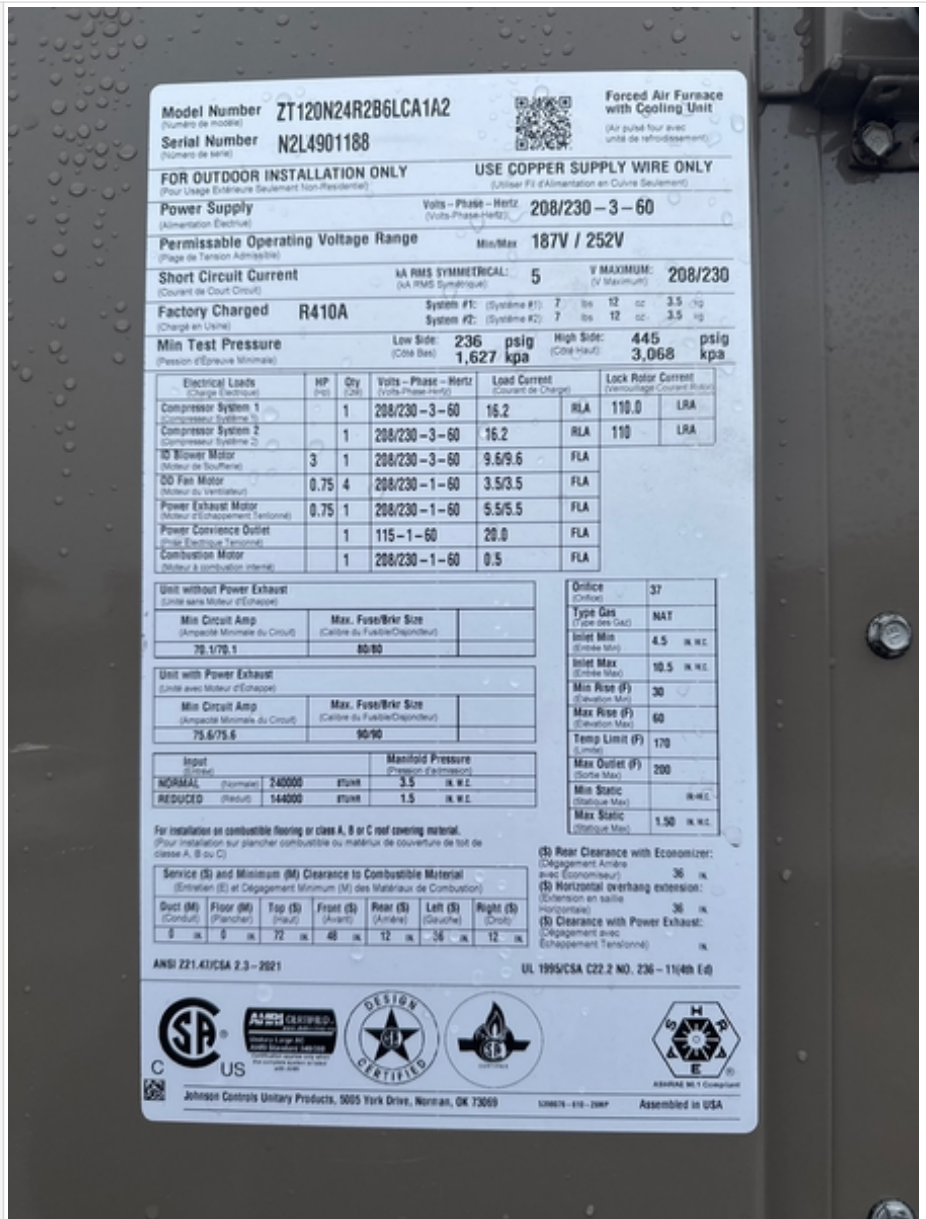
ANSI Z21.47/CSA 2.3-2021
 UL 1996/CSA C22.2 NO. 236-11/08 E4

SP US, AHRI CERTIFIED, DESIGN CERTIFIED, ASHRAE 90.1 COMPLIANT, Johnson Controls Unitary Products, 500 York Drive, Norman, OK 73069, 1800-410-3087, Assembled in USA

19 40.123790, -82.947675

HVAC Post-Install Survey

Please take a picture of the new unit's nameplate with location served written on it

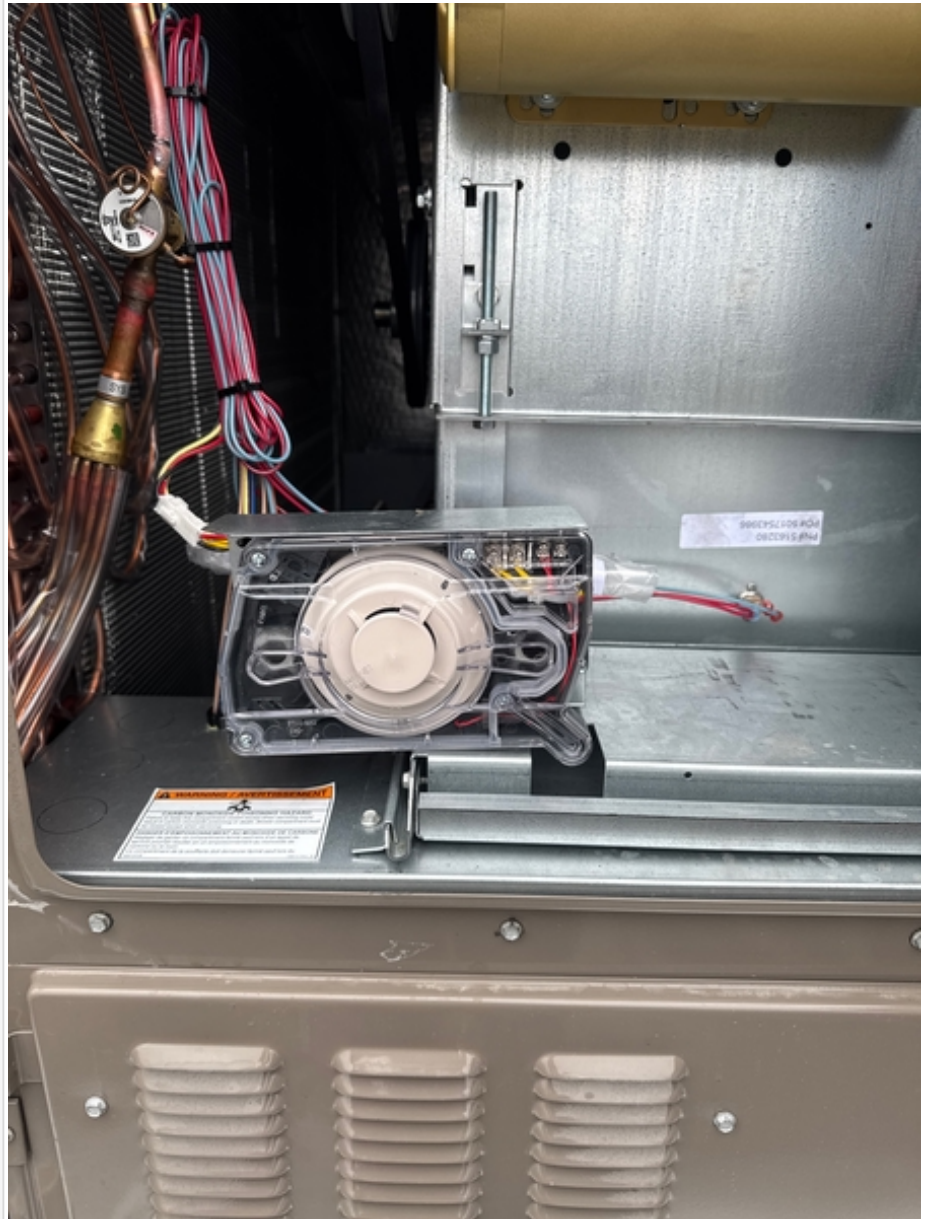


40.123788, -82.947673

01-31-2025 01:23 PM

HVAC Post-Install Survey

Photo of smoke detector to confirm smoke detector has been moved from shipping position



21 40.123803, -82.947690

HVAC Post-Install Survey

Photo of each unit secured to curb




22 40.123761, -82.947696

Photo of condensate trap



23 40.123798, -82.947696


HVAC Post-Install Survey

<p>Photo of ethernet drop</p>	
	<p>📍 40.123798, -82.947671</p>
<p>Thermostat pictures instructions:</p>	<p>Take 2 pictures of the thermostat 1. Take a picture of the wiring to the baseplate 2. Take a picture of the thermostat installed on the wall</p>

HVAC Post-Install Survey

Please take a picture of the unit's thermostat wiring




 40.123785, -82.947510

HVAC Post-Install Survey

Please take a picture of the unit's thermostat screen showing blue Wi-Fi symbol and physical labeling



 40.123769, -82.947517

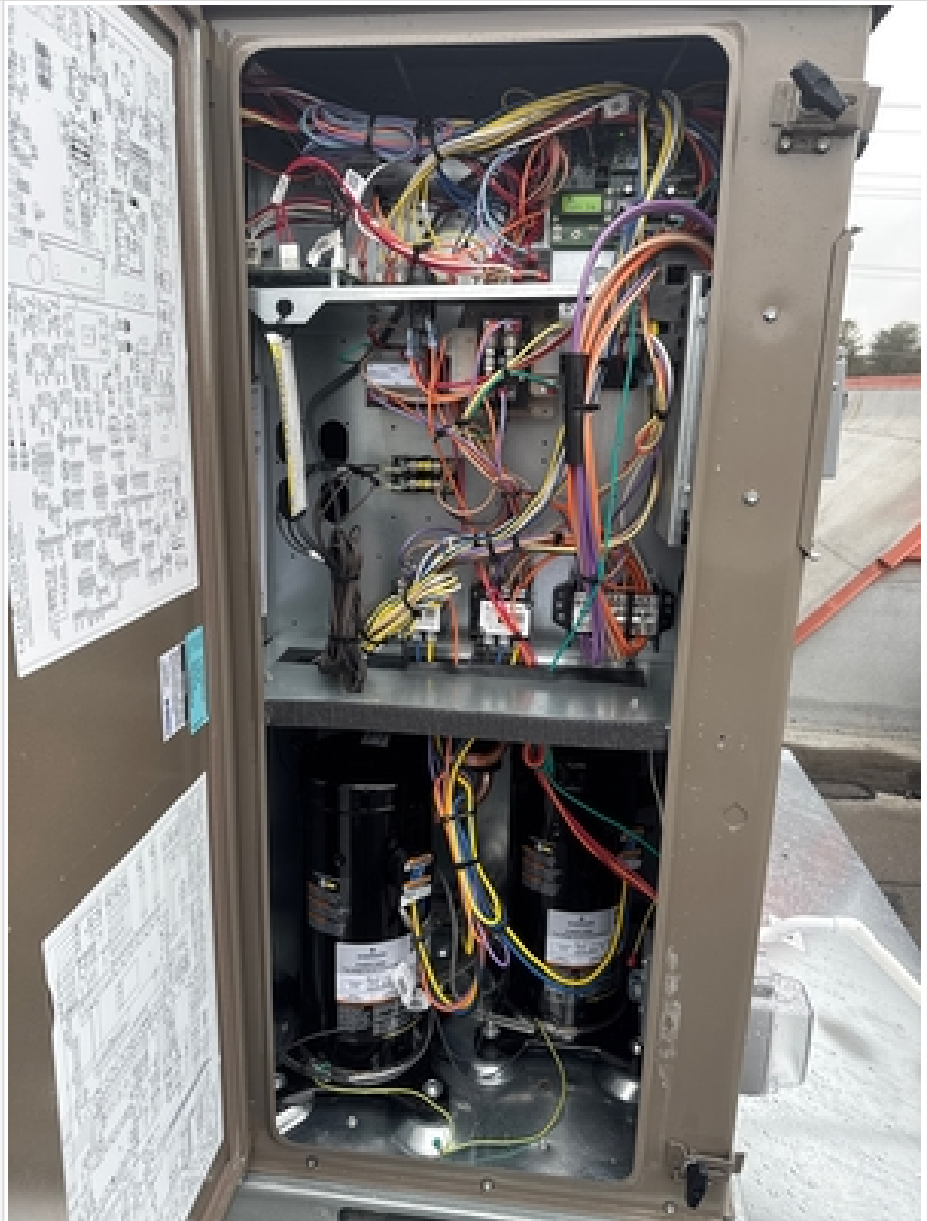
Controller pictures instructions:

Take 3 pictures of different controller screens to prove proper configuration. These are to include:

1. Thermostat control (Adaptive TSTAT disabled).
2. Minimum outside air position
3. Fan speed setups



HVAC Post-Install Survey

Add pictures or screenshots of controller configuration screens

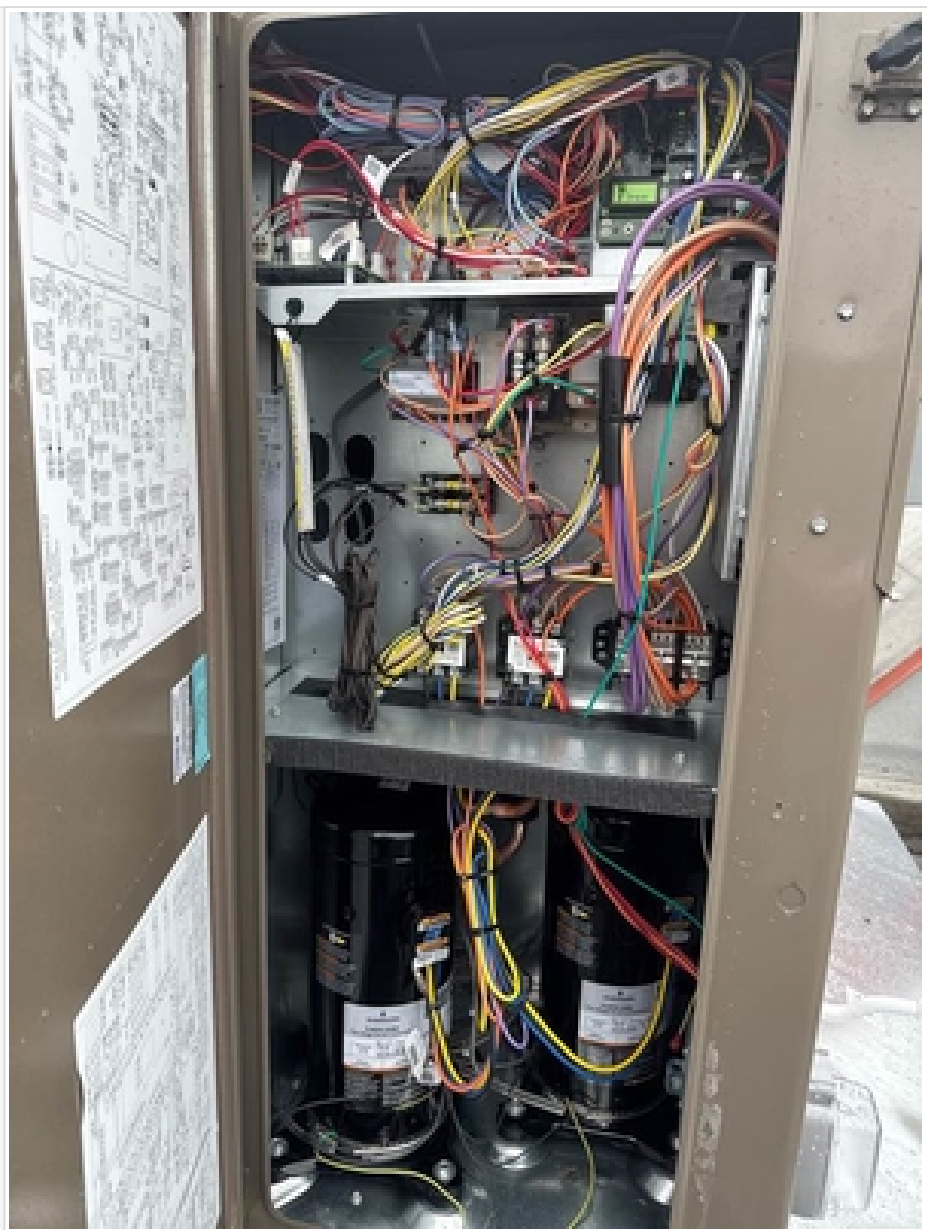



27 40.123773, -82.947678

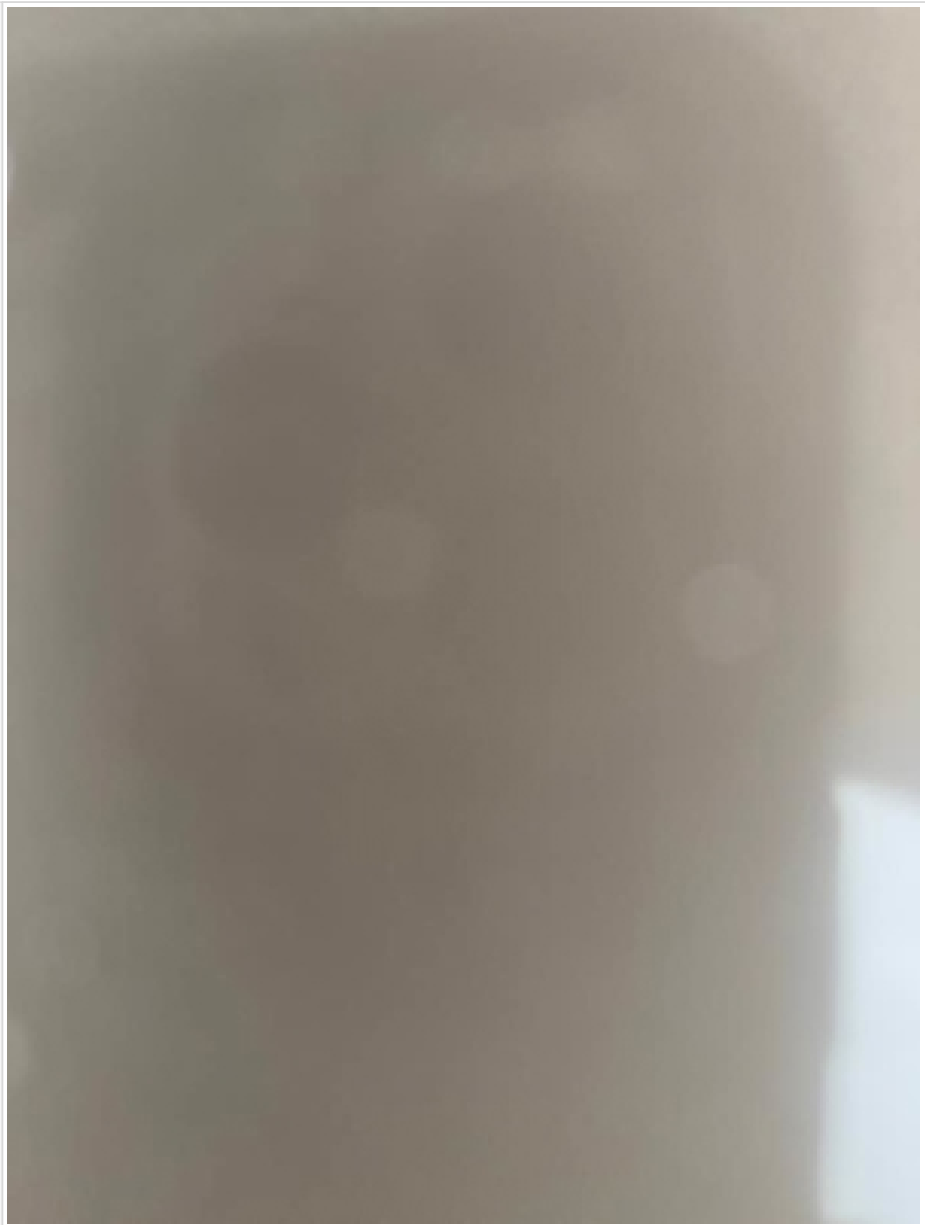

HVAC Post-Install Survey

<p>Add picture of physical economizer installation and economizer configurations in controller</p>	
	<p> 40.123758, -82.947672</p>
<p>Describe condition of make-up air unit(s) and exhaust fan(s) on-site. Do any appear to need maintenance?</p>	
<p>Pre Start Up Checklist</p>	<p>Pre Start Up Checklist</p>
<p>Verify that the coiled Ethernet cable exists inside the HVAC unit</p>	<p>Yes</p>

HVAC Post-Install Survey

<p>Please take a picture of the coiled Ethernet cable inside the HVAC unit</p>	
	<p> 40.123781, -82.947675</p>
<p>Verify the cable has been dropped through the roof and into the ceiling of location</p>	<p>Yes</p>



HVAC Post-Install Survey

<p>Please take a picture of the cable dropped through the roof and into the ceiling of location</p>	
	<p> 40.123750, -82.947642</p>
<p>Verify that all packaging materials have been removed from unit</p>	<p>Yes</p>
<p>Verify installation of outdoor air hood</p>	<p>Yes</p>
<p>Verify installation of flue exhaust and inlet hood (gas units only)</p>	<p>Yes</p>
<p>Verify that condensate connection is installed per installation instructions</p>	<p>Yes</p>
<p>Verify that all electrical connections and terminals are tight</p>	<p>Yes</p>

HVAC Post-Install Survey

Verify gas pressure to unit gas valve is within specified range (gas units only)	Yes
Check gas pipe for leaks (gas units only)	Yes
Check that indoor air filters are clean and in place	Yes
Check that outdoor air inlet screens are in place	Yes
Verify that unit is level	Yes
Check outdoor fan propeller for location in housing/orifice and verify setscrew is tight	Yes
Verify that scroll compressors are rotating in the correct direction	Yes
Verify installation of thermostat/space sensor	Yes
Verify configuration values for electronic controls (based on Control set up checklist)	Yes
Verify that crankcase heaters have been energized for at least 24 hours	Yes
Verify convenience outlet is wired	Yes
Verify transformer tabs incorrect location. Voltage across RC should be between 25-27 Volts	Yes
Verify economizer moves freely without binding on wires or filters rack	Yes
Verify fan and blower set screws tightened and built aligned	Yes

HVAC Post-Install Survey

<p>Please take photos of completed back of manual warranty sheets (note electrical values below can be taken from this)</p>	
	 40.123761, -82.947654
Start Up - Electrical	Start Up - Electrical
Supply Voltage L1-L2	212.00
Supply Voltage L2-L3	212.00
Supply Voltage L3-L1	210.00
Compressor Amps Speed 1 - 2500 rpm L1	12.50
Compressor Amps Speed 1 - 2500 rpm L2	12.50
Compressor Amps Speed 1 - 2500 rpm L3	12.60

HVAC Post-Install Survey


Compressor Amps Speed 2 - 4500 rpm L1	
Compressor Amps Speed 2 - 4500 rpm L2	
Compressor Amps Speed 2 - 4500 rpm L3	
Electric Heat Amps L1 (if applicable)	
Electric Heat Amps L2 (if applicable)	
Electric Heat Amps L3 (if applicable)	
Supply Fan Amps at Max Speed L1	3.50
Supply Fan Amps at Max Speed L2	3.50
Supply Fan Amps at Max Speed L3	3.40
Start Up Temperatures	Start Up Temperatures
Outdoor Air Temperature F Dry Bulb	45.00
Return Air Temperature F Dry Bulb	7.00
Cooling Supply Air Temperature F Dry Bulb (Ideal differential 20F (+/- 5F))	50.00
Gas Heat Supply Air Temperature F (if applicable) (Ideal differential 20F (+/- 5F))	122.00
Electric Heat Supply Air Temperature F (if applicable) (Ideal differential 20F (+/- 5F))	0.00
Start Up Pressures	Start Up Pressures
Gas Inlet Pressure (in wg)	10.00
Gas Manifold Pressure Stage 1 (in wg)	1.50
Gas Manifold Pressure Stage 2 (in wg)	3.50
Refrigeration Suction Circuit A (psig)	130.00
Refrigeration Suction Circuit A Superheat deg F	15.00
Refrigeration Discharge Circuit A (psig)	212.00
Refrigeration Discharge Circuit A Subcooling deg F	10.00

HVAC Post-Install Survey

Verify refrigerant charge using charging charts	Yes
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Post-Install Unit Air Flow #2

Section 1

Is the economizer fully operational?	Yes
	 40.123785, -82.947653
Outside air intake damper minimum position: (Target: X> 5%)	6

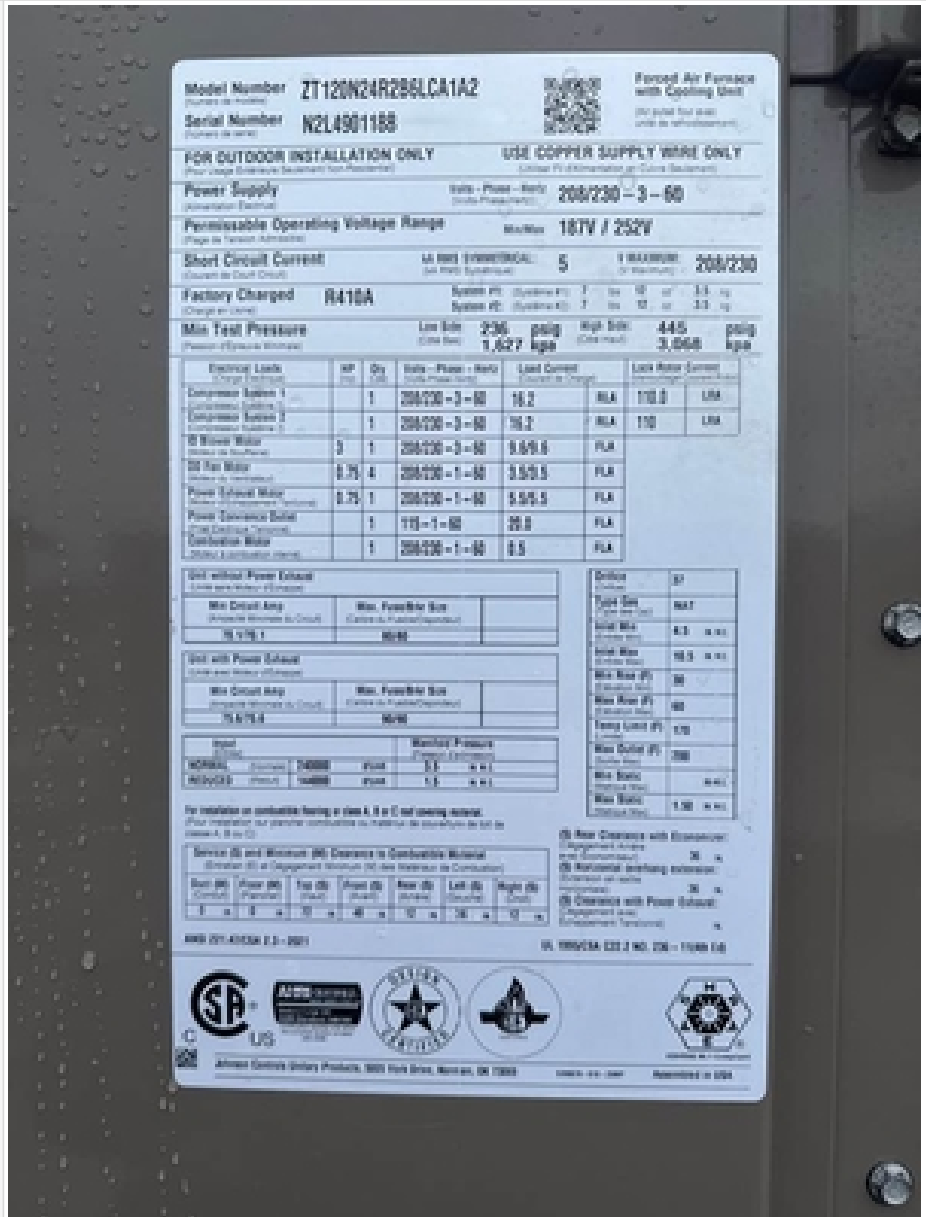
Post-Install Unit Connectivity #2

RTU Post Install Survey

HVAC Serial Number	N2L4901188
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HVAC Post-Install Survey

Take a photo of the HVAC nameplate



	40.123787, -82.947665	01-31-2025 02:01 PM
Area served by HVAC	DINING ROOM	

HVAC Post-Install Survey

Take a photo of the RTU number
(It may be handwritten on the RTU
or on a decal/sticker)



 40.123815, -82.947659

Where is the RTU located on site?	ROOF
Type of RTU	Other
Other Type of RTU	YORK
Take a photo of the HVAC RTU controller display - showing the MAC Address you entered	
Take a photo of the HVAC RTU controller display - showing the BAUD rate you entered	
Take a photo of the HVAC RTU controller display - showing the BAS Protocol you picked	

HVAC Post-Install Survey

Take a photo of the HVAC RTU controller - showing the BAS terminals wired with 3 wires distinctively colored	
Take a photo of the BACnet router - showing the COM1 terminals with 3 wires distinctively colored	
Take a photo of the BACnet router - showing the Ethernet port's 2 LEDs illuminated	
Take a photo of the BACnet router - showing the power terminals connected to the DC power supply	
Take a photo of the BACnet router - showing the 6 front LEDs illuminated	
Take a photo of the BACnet router - showing the label printed by Budderfly	
Take a photo of the Network Switch in Budderfly's network enclosure - showing the Ethernet port connected to the BACnet router from the other end of the cable	
Take a photo of the ethernet cable plugged into the Lennox Controller	
Take a photo of the ethernet cable plugged into the Budderfly Network Switch	
A Photo of the Lennox Controller after successful connection and the WIFI LED is steady green	
Instruction	The remaining questions require you uploading screenshots from the core controller app. You need screens for the "Network Setup Option" and the following parameters: Network, Device Instance, Control Mode, IP Configuration, Remote Service Access.
Take a screenshot of the core controller app after you pair the RTU successfully	
Take a screenshot of the core controller app (Network Setup) - "Network Setup Option"	
Take a screenshot of the core controller app (Network Setup) - "Network" parameter	
Take a screenshot of the core controller app (Network Setup) - "Device Instance" parameter	
Take a screenshot of the core controller app (Network Setup) - "Control Mode" parameter	

HVAC Post-Install Survey

Take a screenshot of the core controller app (Network Setup) - "IP Configuration" parameter	
Take a screenshot of the core controller app (Network Setup) - "Remote Service Access" parameter	
Instruction	We need clear indication that the cable was run for each HVAC unit. If there are 4 HVAC units then 4 cables are to be run and pics of each cable needs to be included in the survey.
Please provide pics of the Ethernet cable run from the connectivity switch to the HVAC unit(s)	
Please contact the Budderfly Support team at 475-270-4895 with any issues during install and for validating that a proper checkout has been completed.	

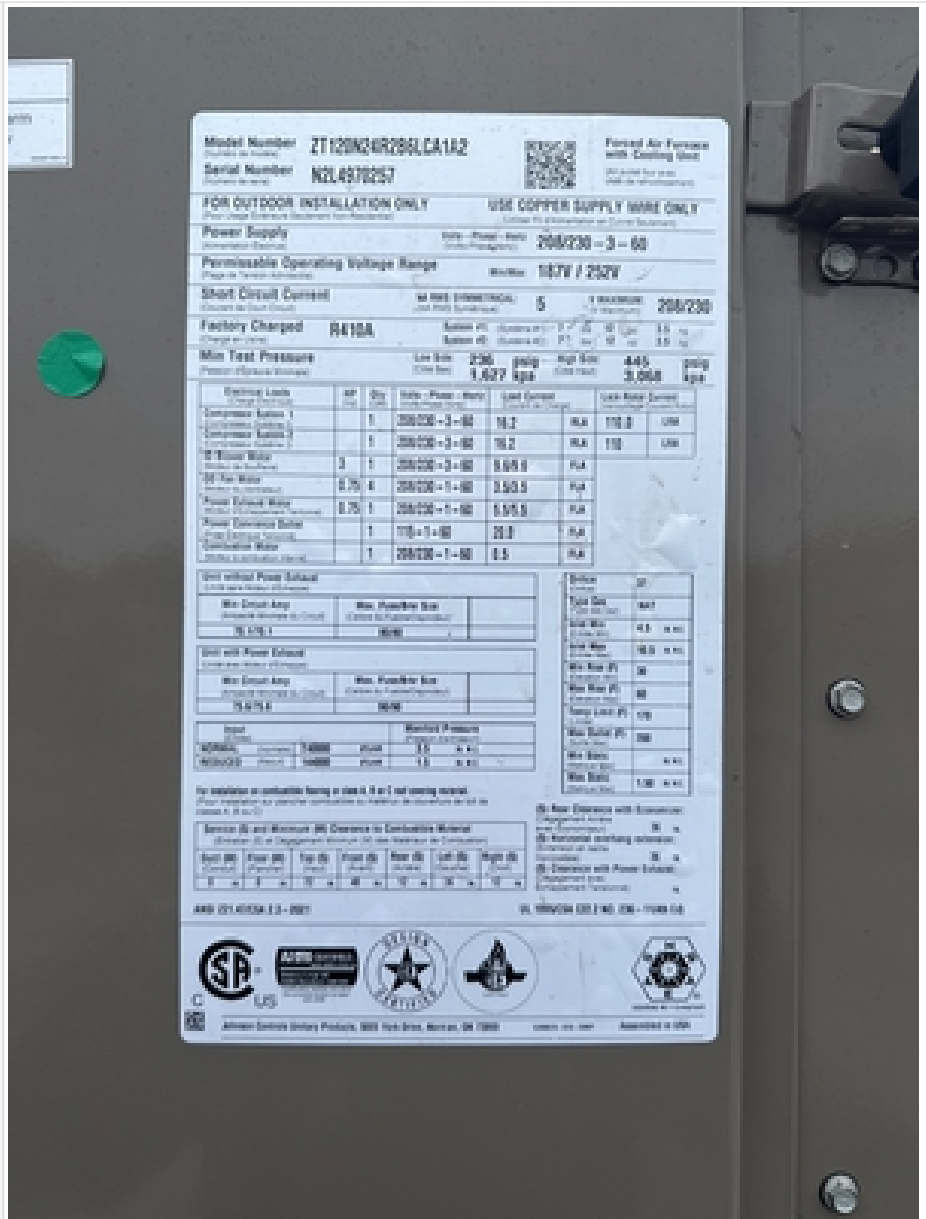
Post-Install Unit Overview #3

Post Install HVAC Unit Details

equipment_type	HVAC
Type of unit?	Packaged Unit
Unit Location	West
Area Served	Dining Room
Manufacturer	YORK
Model #	ZT120N24R2B6LCA1A2
Serial #	N2L4970257
Enter the tonnage of the unit	10.00

HVAC Post-Install Survey

Please take a picture of the replaced unit's nameplate



	40.123751, -82.947659 01-31-2025 02:03 PM
Replaced Unit Manufacturer	YORK
Replaced Unit Model	ZT120N24R2B6LCA1A2
Replaced Unit Serial Number	N2L4970257
Replaced Unit Tonnage	10.00
Side pictures instructions:	Provided at least two pictures of the unit from opposite ends. The pictures should show: <ol style="list-style-type: none"> 1. Electrical disconnect and conduit 2. Gas piping 3. Economizer installed

HVAC Post-Install Survey

Please take a picture of unit from each side



HVAC Post-Install Survey



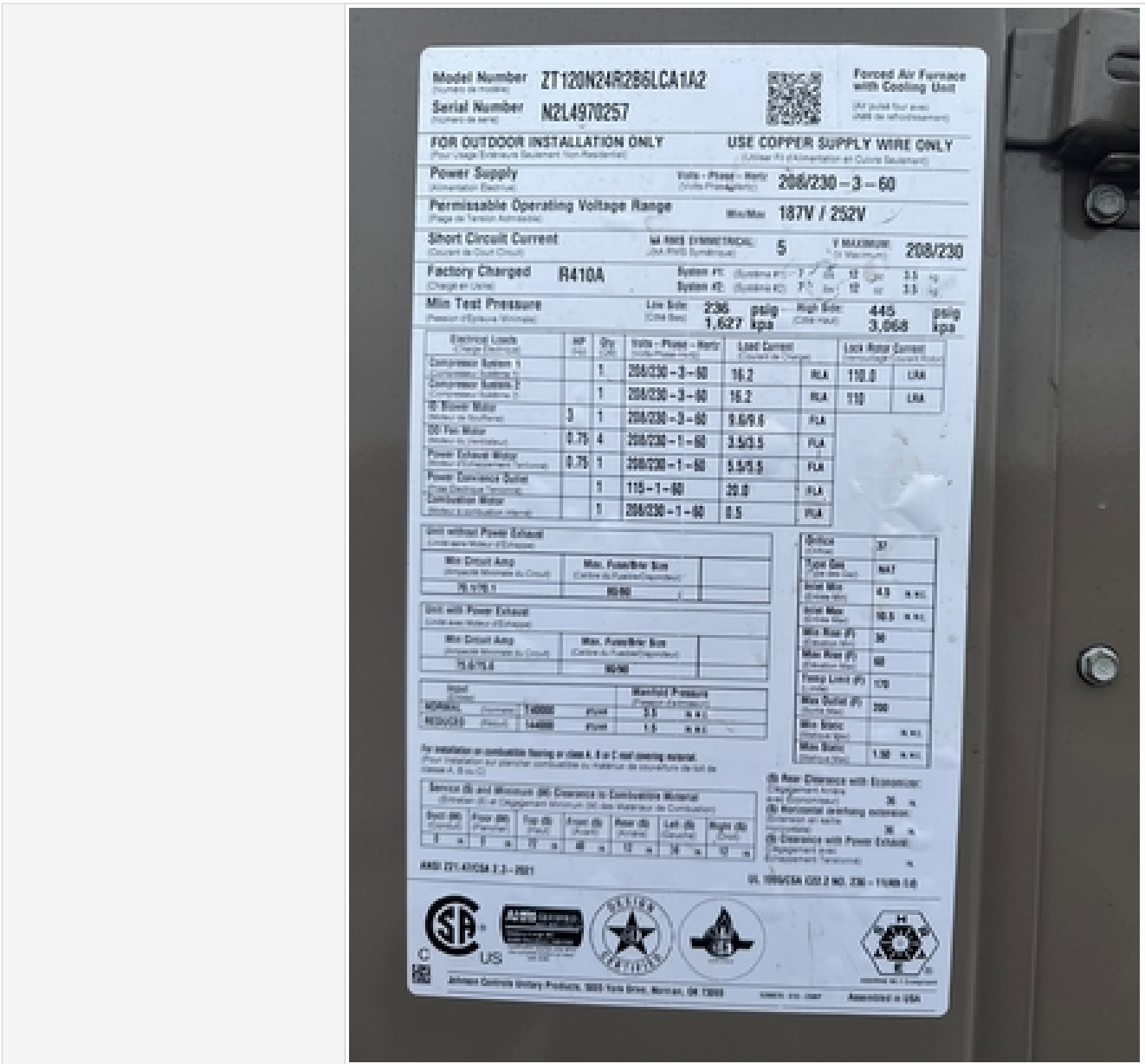
HVAC Post-Install Survey



HVAC Post-Install Survey



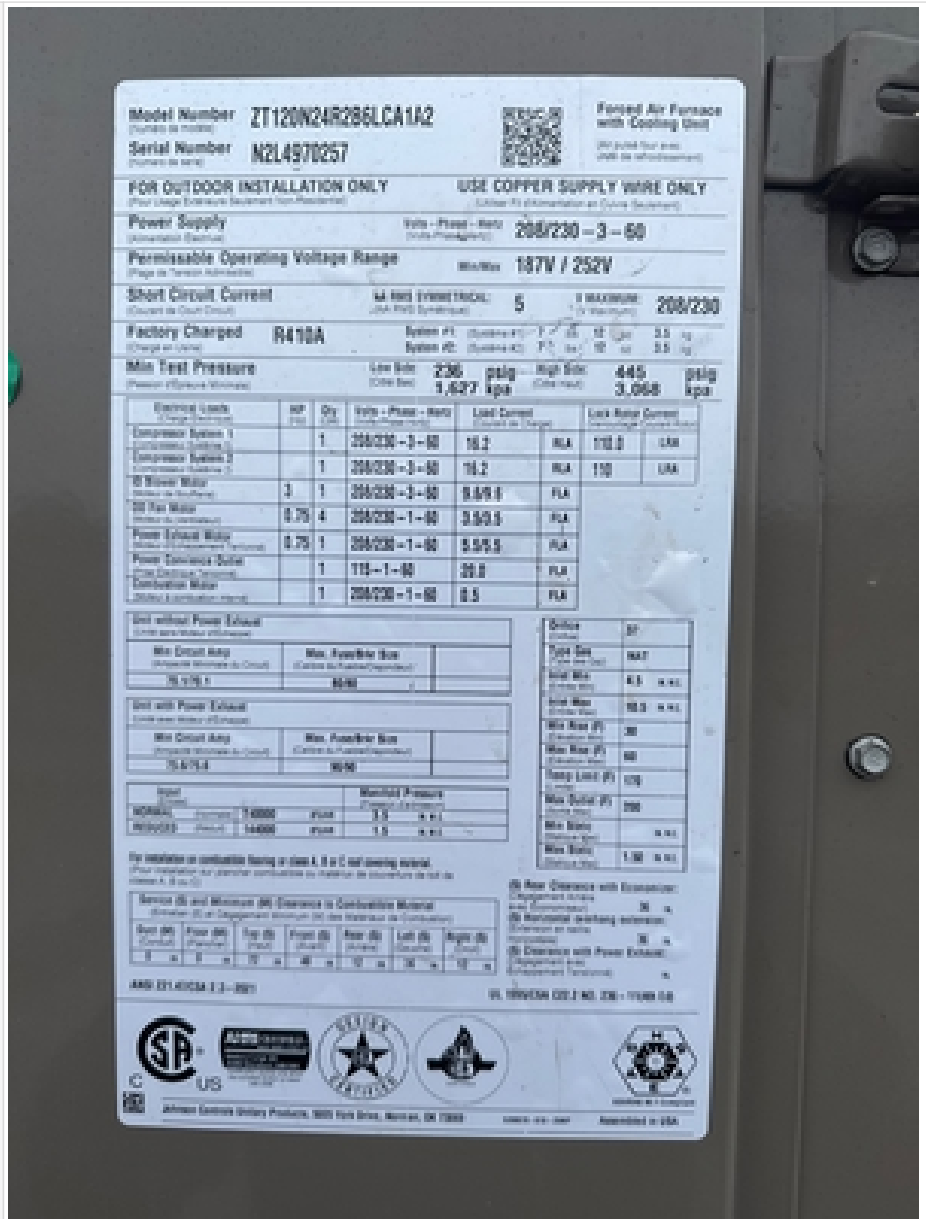
HVAC Post-Install Survey



36 40.123747, -82.947658

HVAC Post-Install Survey

Please take a picture of the new unit's nameplate with location served written on it



37 40.123744, -82.947653

01-31-2025 02:06 PM

HVAC Post-Install Survey

Photo of smoke detector to confirm smoke detector has been moved from shipping position



40.123731, -82.947646

HVAC Post-Install Survey

Photo of each unit secured to curb





39 40.123761, -82.947653

Photo of condensate trap



40 40.123730, -82.947657


HVAC Post-Install Survey

<p>Photo of ethernet drop</p>	
	<p> 40.123737, -82.947654</p>
<p>Thermostat pictures instructions:</p>	<p>Take 2 pictures of the thermostat 1. Take a picture of the wiring to the baseplate 2. Take a picture of the thermostat installed on the wall</p>

HVAC Post-Install Survey

Please take a picture of the unit's thermostat wiring



 40.123790, -82.947479

HVAC Post-Install Survey

Please take a picture of the unit's thermostat screen showing blue Wi-Fi symbol and physical labeling



 40.123801, -82.947482

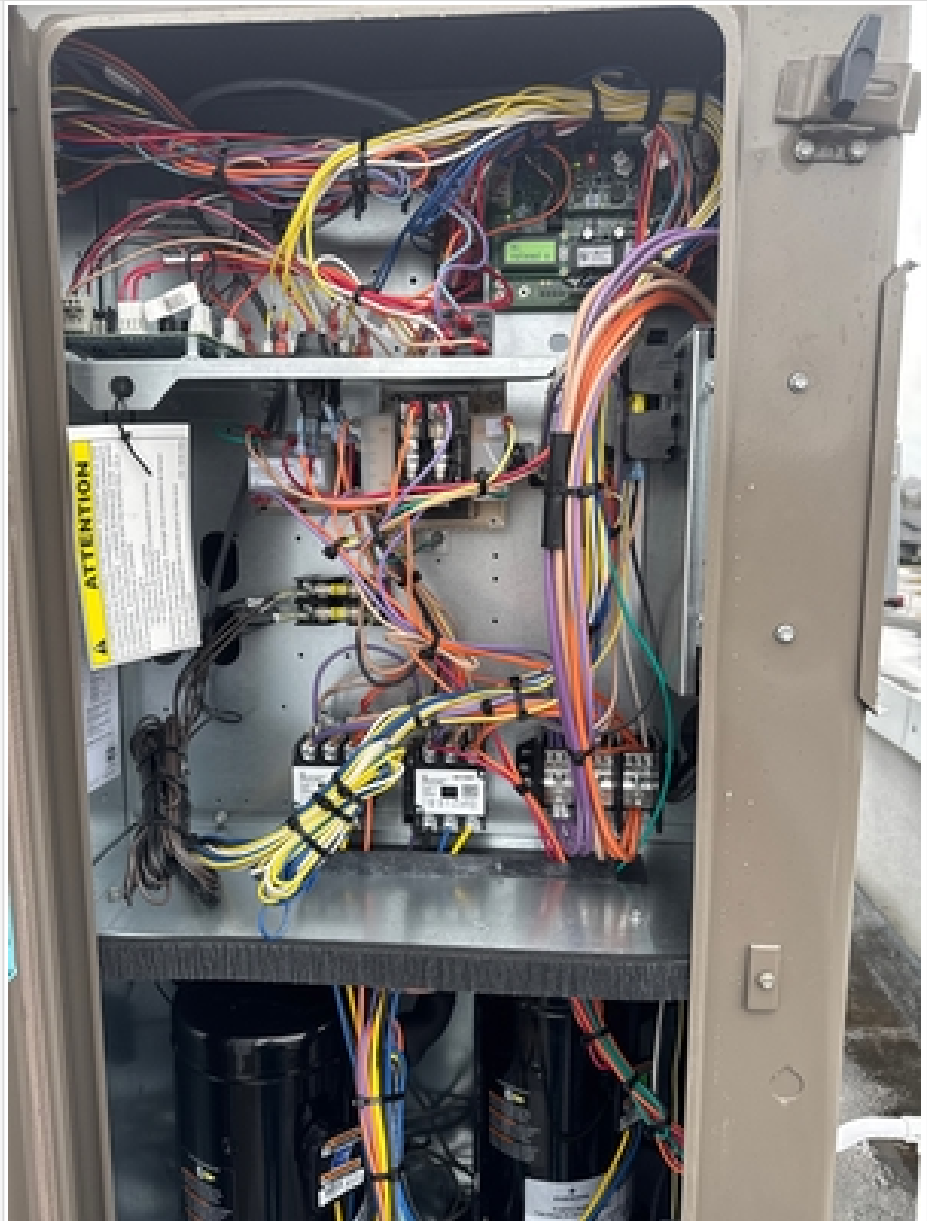
Controller pictures instructions:

Take 3 pictures of different controller screens to prove proper configuration. These are to include:

1. Thermostat control (Adaptive TSTAT disabled).
2. Minimum outside air position
3. Fan speed setups

HVAC Post-Install Survey

Add pictures or screenshots of controller configuration screens




40.123747, -82.947663

HVAC Post-Install Survey

Add picture of physical economizer installation and economizer configurations in controller



 40.123755, -82.947664

Describe condition of make-up air unit(s) and exhaust fan(s) on-site. Do any appear to need maintenance?

Pre Start Up Checklist

Pre Start Up Checklist


Verify that the coiled Ethernet cable exists inside the HVAC unit

Yes

HVAC Post-Install Survey

Please take a picture of the coiled Ethernet cable inside the HVAC unit

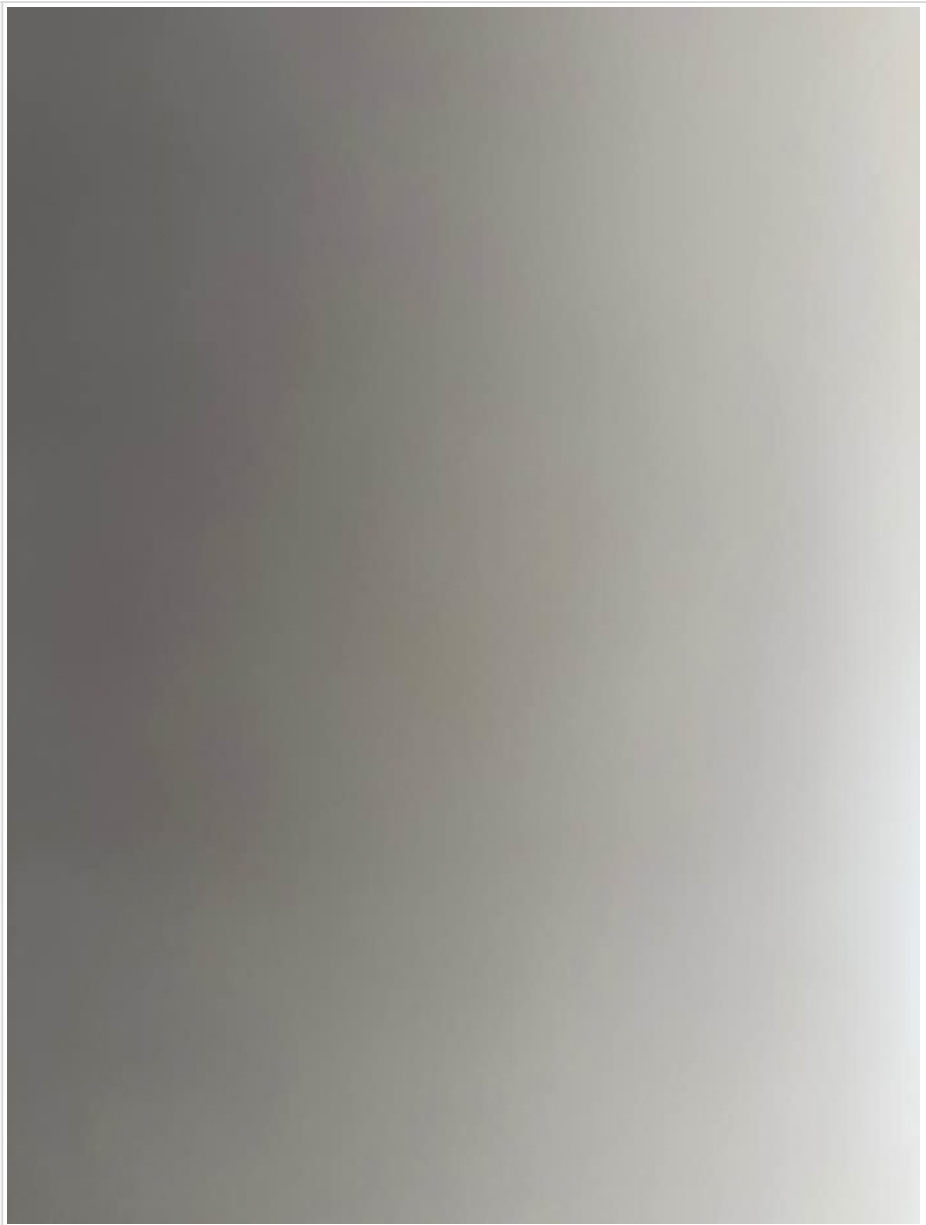



 40.123752, -82.947657

Verify the cable has been dropped through the roof and into the ceiling of location

Yes



HVAC Post-Install Survey

<p>Please take a picture of the cable dropped through the roof and into the ceiling of location</p>	
	<p> 40.123762, -82.947669</p>
<p>Verify that all packaging materials have been removed from unit</p>	<p>Yes</p>
<p>Verify installation of outdoor air hood</p>	<p>Yes</p>
<p>Verify installation of flue exhaust and inlet hood (gas units only)</p>	<p>Yes</p>
<p>Verify that condensate connection is installed per installation instructions</p>	<p>Yes</p>
<p>Verify that all electrical connections and terminals are tight</p>	<p>Yes</p>

HVAC Post-Install Survey

Verify gas pressure to unit gas valve is within specified range (gas units only)	Yes
Check gas pipe for leaks (gas units only)	Yes
Check that indoor air filters are clean and in place	Yes
Check that outdoor air inlet screens are in place	Yes
Verify that unit is level	Yes
Check outdoor fan propeller for location in housing/orifice and verify setscrew is tight	Yes
Verify that scroll compressors are rotating in the correct direction	Yes
Verify installation of thermostat/space sensor	Yes
Verify configuration values for electronic controls (based on Control set up checklist)	Yes
Verify that crankcase heaters have been energized for at least 24 hours	Yes
Verify convenience outlet is wired	Yes
Verify transformer tabs incorrect location. Voltage across RC should be between 25-27 Volts	Yes
Verify economizer moves freely without binding on wires or filters rack	Yes
Verify fan and blower set screws tightened and built aligned	Yes

HVAC Post-Install Survey

<p>Please take photos of completed back of manual warranty sheets (note electrical values below can be taken from this)</p>	
	<p> 40.123760, -82.947697</p>
<p>Start Up - Electrical</p>	<p>Start Up - Electrical</p>
<p>Supply Voltage L1-L2</p>	<p>212.00</p>
<p>Supply Voltage L2-L3</p>	<p>211.00</p>
<p>Supply Voltage L3-L1</p>	<p>209.00</p>
<p>Compressor Amps Speed 1 - 2500 rpm L1</p>	<p>12.50</p>
<p>Compressor Amps Speed 1 - 2500 rpm L2</p>	<p>12.60</p>
<p>Compressor Amps Speed 1 - 2500 rpm L3</p>	<p>12.70</p>

HVAC Post-Install Survey

Compressor Amps Speed 2 - 4500 rpm L1	
Compressor Amps Speed 2 - 4500 rpm L2	
Compressor Amps Speed 2 - 4500 rpm L3	
Electric Heat Amps L1 (if applicable)	
Electric Heat Amps L2 (if applicable)	
Electric Heat Amps L3 (if applicable)	
Supply Fan Amps at Max Speed L1	3.60
Supply Fan Amps at Max Speed L2	3.60
Supply Fan Amps at Max Speed L3	3.50
Start Up Temperatures	Start Up Temperatures
Outdoor Air Temperature F Dry Bulb	45.00
Return Air Temperature F Dry Bulb	70.00
Cooling Supply Air Temperature F Dry Bulb (Ideal differential 20F (+/- 5F))	50.00
Gas Heat Supply Air Temperature F (if applicable) (Ideal differential 20F (+/- 5F))	121.00
Electric Heat Supply Air Temperature F (if applicable) (Ideal differential 20F (+/- 5F))	0.00
Start Up Pressures	Start Up Pressures
Gas Inlet Pressure (in wg)	11.00
Gas Manifold Pressure Stage 1 (in wg)	1.50
Gas Manifold Pressure Stage 2 (in wg)	3.50
Refrigeration Suction Circuit A (psig)	128.00
Refrigeration Suction Circuit A Superheat deg F	16.00
Refrigeration Discharge Circuit A (psig)	211.00
Refrigeration Discharge Circuit A Subcooling deg F	10.00


HVAC Post-Install Survey

Verify refrigerant charge using charging charts	Yes
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Post-Install Unit Air Flow #3

Section 1

Is the economizer fully operational?	Yes
--------------------------------------	-----

	 40.123758, -82.947657
--	---

Outside air intake damper minimum position: (Target: X> 5%)	6
---	---

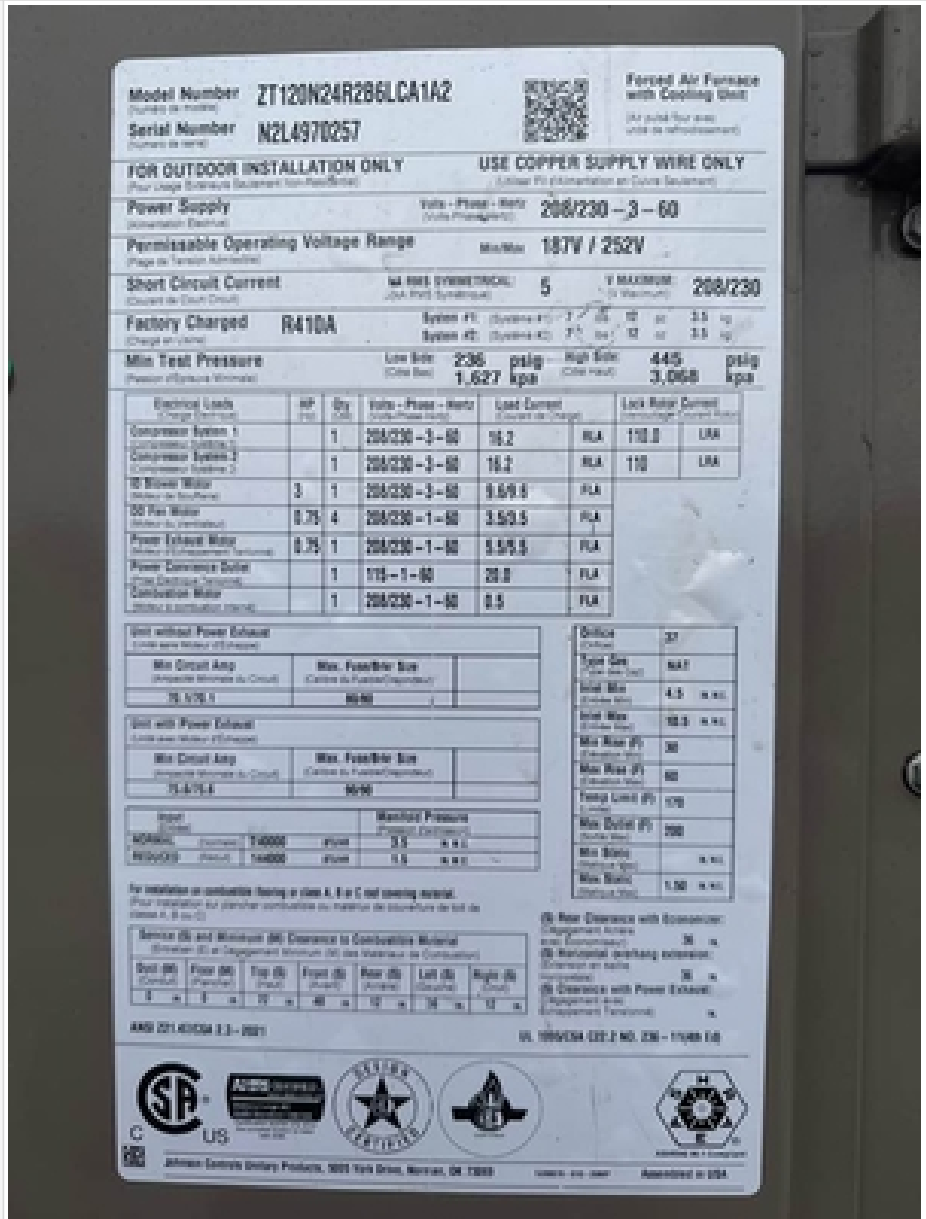
Post-Install Unit Connectivity #3

RTU Post Install Survey

HVAC Serial Number	N2L4970257
--------------------	------------

HVAC Post-Install Survey

Take a photo of the HVAC nameplate



	40.123743, -82.947664	01-31-2025 02:16 PM
Area served by HVAC	DINING ROOM	

HVAC Post-Install Survey

Take a photo of the RTU number
(It may be handwritten on the RTU
or on a decal/sticker)



 40.123717, -82.947683

Where is the RTU located on site?	ROOF
Type of RTU	Other
Other Type of RTU	YORK
Take a photo of the HVAC RTU controller display - showing the MAC Address you entered	
Take a photo of the HVAC RTU controller display - showing the BAUD rate you entered	
Take a photo of the HVAC RTU controller display - showing the BAS Protocol you picked	

HVAC Post-Install Survey

Take a photo of the HVAC RTU controller - showing the BAS terminals wired with 3 wires distinctively colored	
Take a photo of the BACnet router - showing the COM1 terminals with 3 wires distinctively colored	
Take a photo of the BACnet router - showing the Ethernet port's 2 LEDs illuminated	
Take a photo of the BACnet router - showing the power terminals connected to the DC power supply	
Take a photo of the BACnet router - showing the 6 front LEDs illuminated	
Take a photo of the BACnet router - showing the label printed by Budderfly	
Take a photo of the Network Switch in Budderfly's network enclosure - showing the Ethernet port connected to the BACnet router from the other end of the cable	
Take a photo of the ethernet cable plugged into the Lennox Controller	
Take a photo of the ethernet cable plugged into the Budderfly Network Switch	
A Photo of the Lennox Controller after successful connection and the WIFI LED is steady green	
Instruction	The remaining questions require you uploading screenshots from the core controller app. You need screens for the "Network Setup Option" and the following parameters: Network, Device Instance, Control Mode, IP Configuration, Remote Service Access.
Take a screenshot of the core controller app after you pair the RTU successfully	
Take a screenshot of the core controller app (Network Setup) - "Network Setup Option"	
Take a screenshot of the core controller app (Network Setup) - "Network" parameter	
Take a screenshot of the core controller app (Network Setup) - "Device Instance" parameter	
Take a screenshot of the core controller app (Network Setup) - "Control Mode" parameter	

HVAC Post-Install Survey

Take a screenshot of the core controller app (Network Setup) - "IP Configuration" parameter	
Take a screenshot of the core controller app (Network Setup) - "Remote Service Access" parameter	
Instruction	We need clear indication that the cable was run for each HVAC unit. If there are 4 HVAC units then 4 cables are to be run and pics of each cable needs to be included in the survey.
Please provide pics of the Ethernet cable run from the connectivity switch to the HVAC unit(s)	
Please contact the Budderfly Support team at 475-270-4895 with any issues during install and for validating that a proper checkout has been completed.	

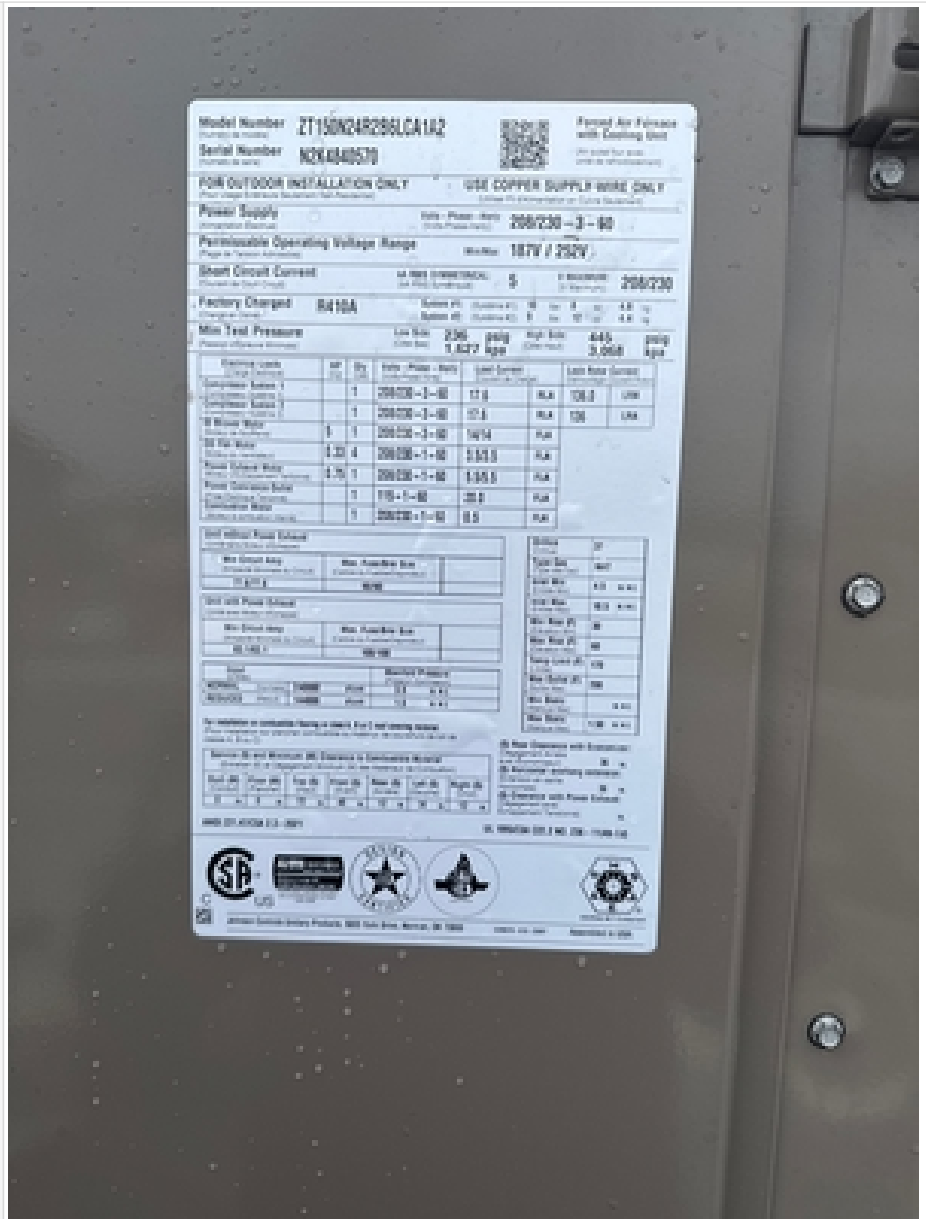
Post-Install Unit Overview #4

Post Install HVAC Unit Details

equipment_type	HVAC
Type of unit?	Packaged Unit
Unit Location	South
Area Served	Kitchen
Manufacturer	YORK
Model #	ZT150N24R2B6LCA1A2
Serial #	N2K4840570
Enter the tonnage of the unit	12.50

HVAC Post-Install Survey

Please take a picture of the replaced unit's nameplate



	40.123772, -82.947503 01-31-2025 02:21 PM
Replaced Unit Manufacturer	YORK
Replaced Unit Model	ZT150N24R2B6LCA1A2
Replaced Unit Serial Number	N2K4840570
Replaced Unit Tonnage	12.50
Side pictures instructions:	Provided at least two pictures of the unit from opposite ends. The pictures should show: <ol style="list-style-type: none"> 1. Electrical disconnect and conduit 2. Gas piping 3. Economizer installed

HVAC Post-Install Survey

Please take a picture of unit from each side



HVAC Post-Install Survey



HVAC Post-Install Survey



HVAC Post-Install Survey



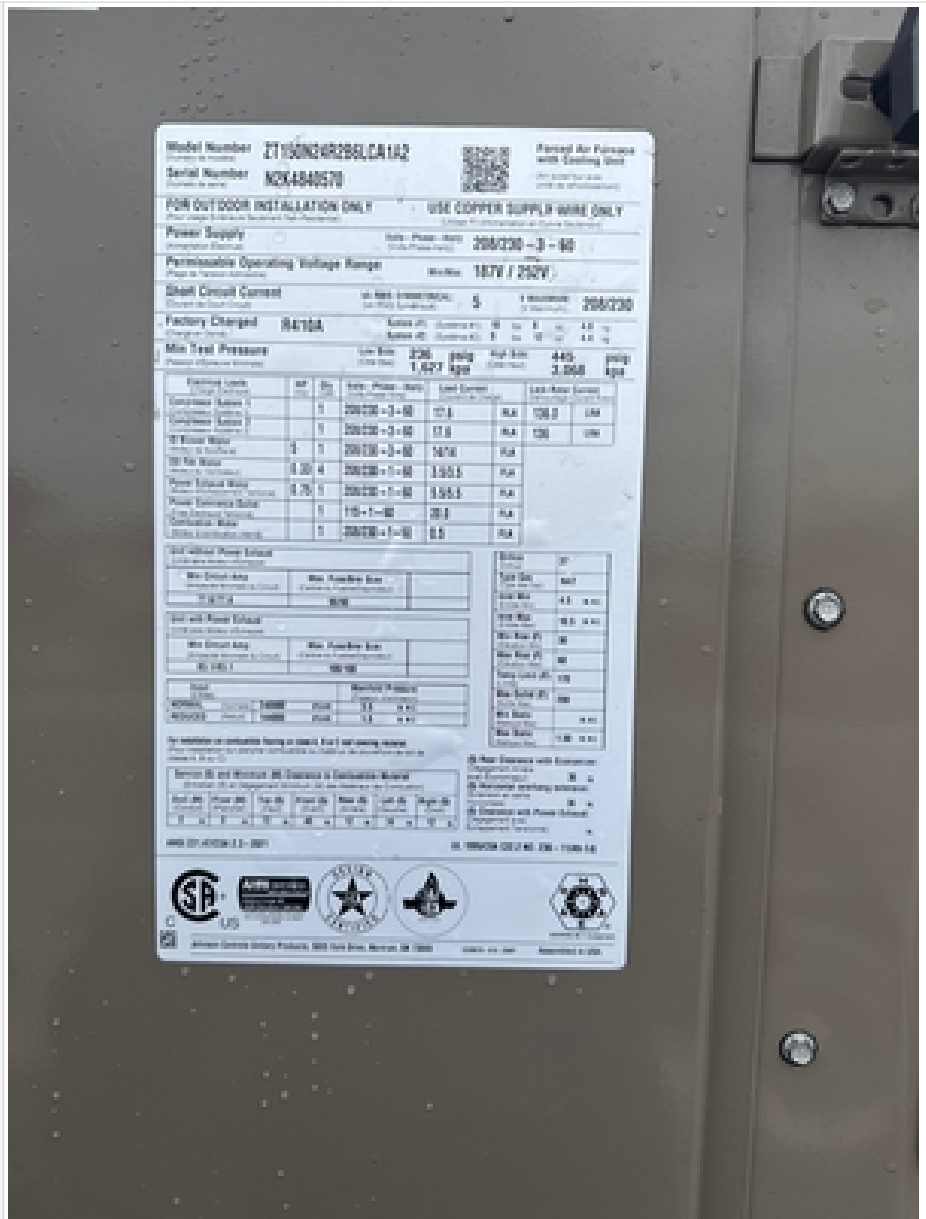
HVAC Post-Install Survey



53 40.123777, -82.947510

HVAC Post-Install Survey

Please take a picture of the new unit's nameplate with location served written on it

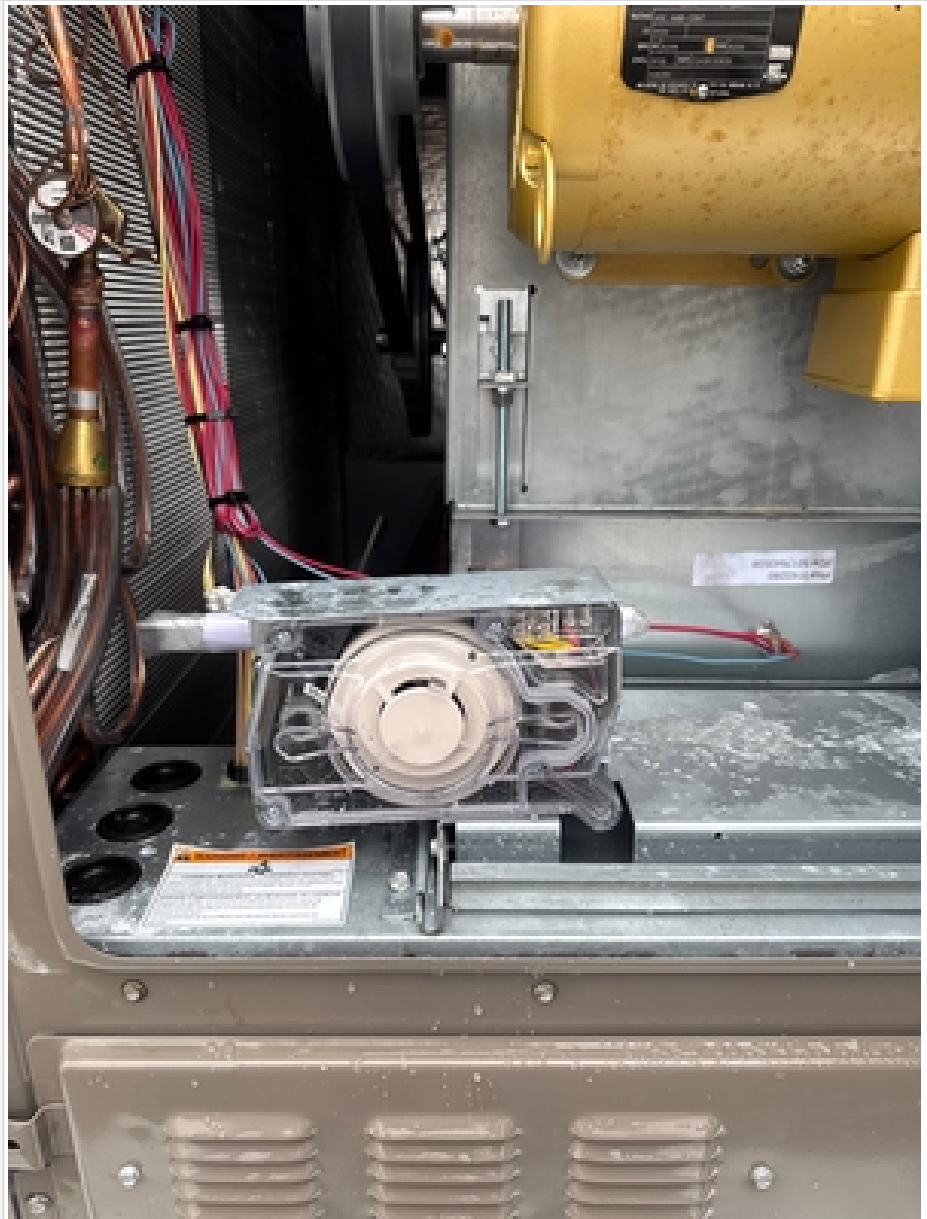


40.123773, -82.947515

01-31-2025 02:24 PM

HVAC Post-Install Survey

Photo of smoke detector to confirm smoke detector has been moved from shipping position



40.123786, -82.947524

HVAC Post-Install Survey

Photo of each unit secured to curb



56 40.123754, -82.947534

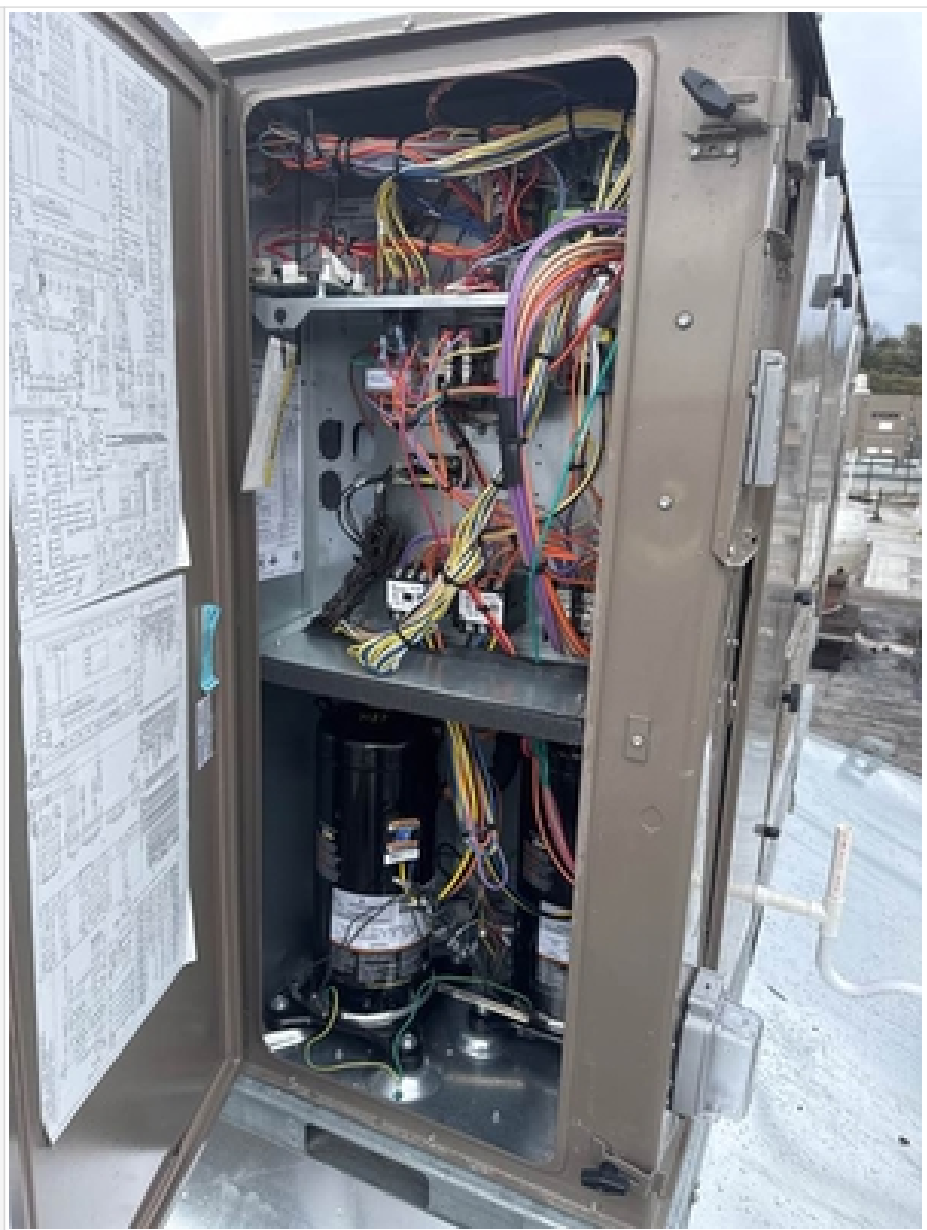

HVAC Post-Install Survey

Photo of condensate trap



57 40.123791, -82.947534

HVAC Post-Install Survey

<p>Photo of ethernet drop</p>	
	<p> 40.123749, -82.947518</p>
<p>Thermostat pictures instructions:</p>	<p>Take 2 pictures of the thermostat 1. Take a picture of the wiring to the baseplate 2. Take a picture of the thermostat installed on the wall</p>

HVAC Post-Install Survey

Please take a picture of the unit's thermostat wiring




59 40.123799, -82.947547

HVAC Post-Install Survey

Please take a picture of the unit's thermostat screen showing blue Wi-Fi symbol and physical labeling



 40.123837, -82.947643

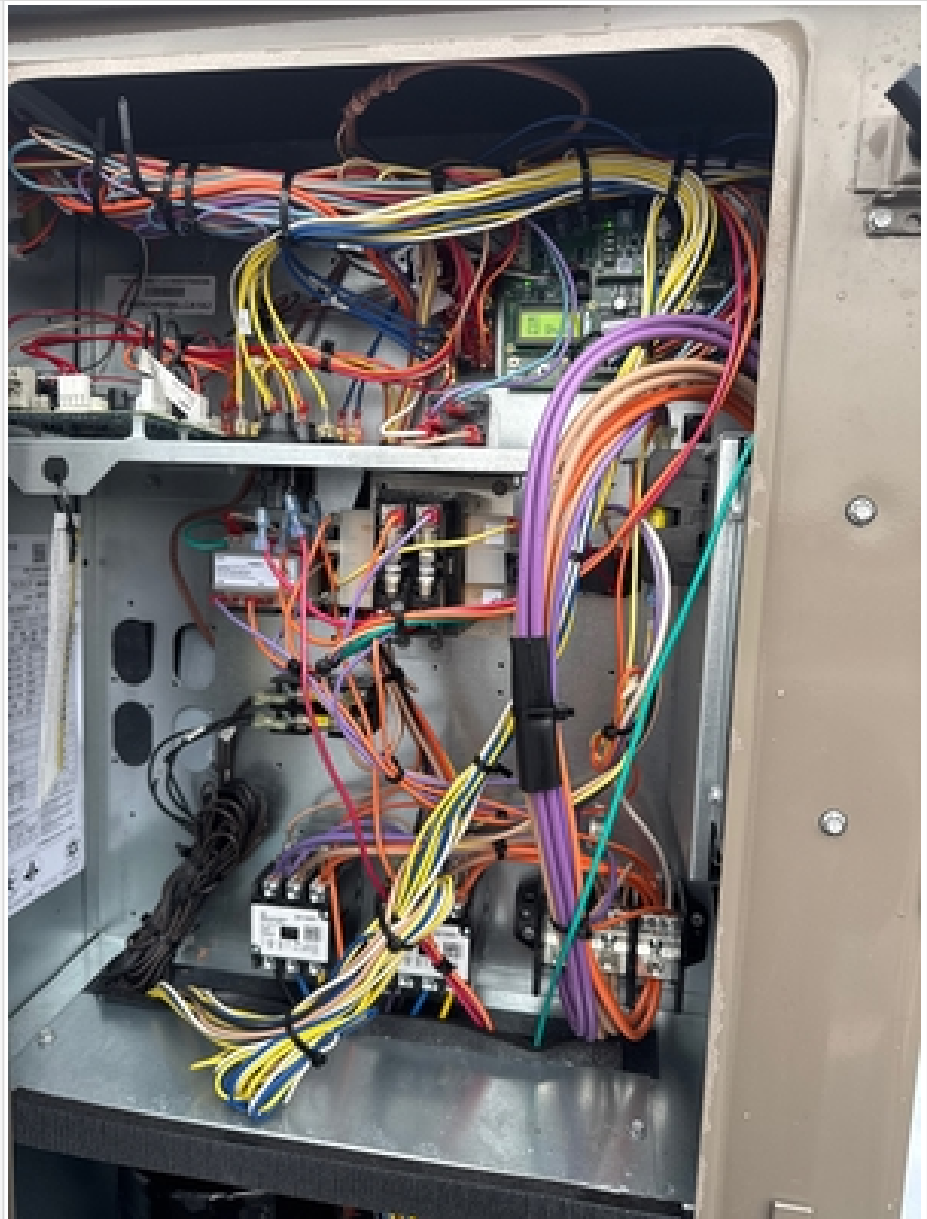
Controller pictures instructions:

Take 3 pictures of different controller screens to prove proper configuration. These are to include:

1. Thermostat control (Adaptive TSTAT disabled).
2. Minimum outside air position
3. Fan speed setups



HVAC Post-Install Survey

Add pictures or screenshots of controller configuration screens



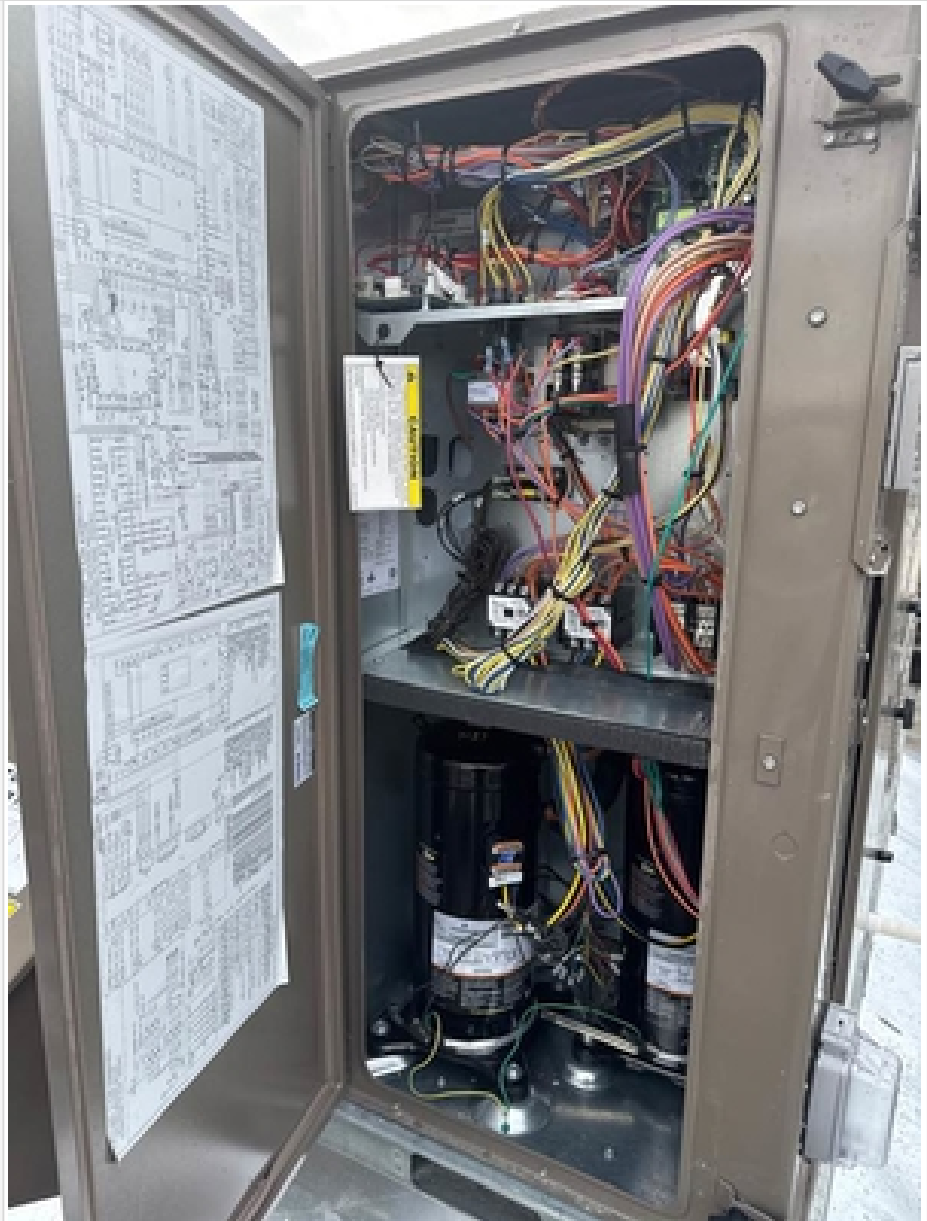
61 40.123756, -82.947522


HVAC Post-Install Survey

<p>Add picture of physical economizer installation and economizer configurations in controller</p>	
	<p> 40.123765, -82.947498</p>
<p>Describe condition of make-up air unit(s) and exhaust fan(s) on-site. Do any appear to need maintenance?</p>	
<p>Pre Start Up Checklist</p>	<p>Pre Start Up Checklist</p>
<p>Verify that the coiled Ethernet cable exists inside the HVAC unit</p>	<p>Yes</p>

HVAC Post-Install Survey

Please take a picture of the coiled Ethernet cable inside the HVAC unit

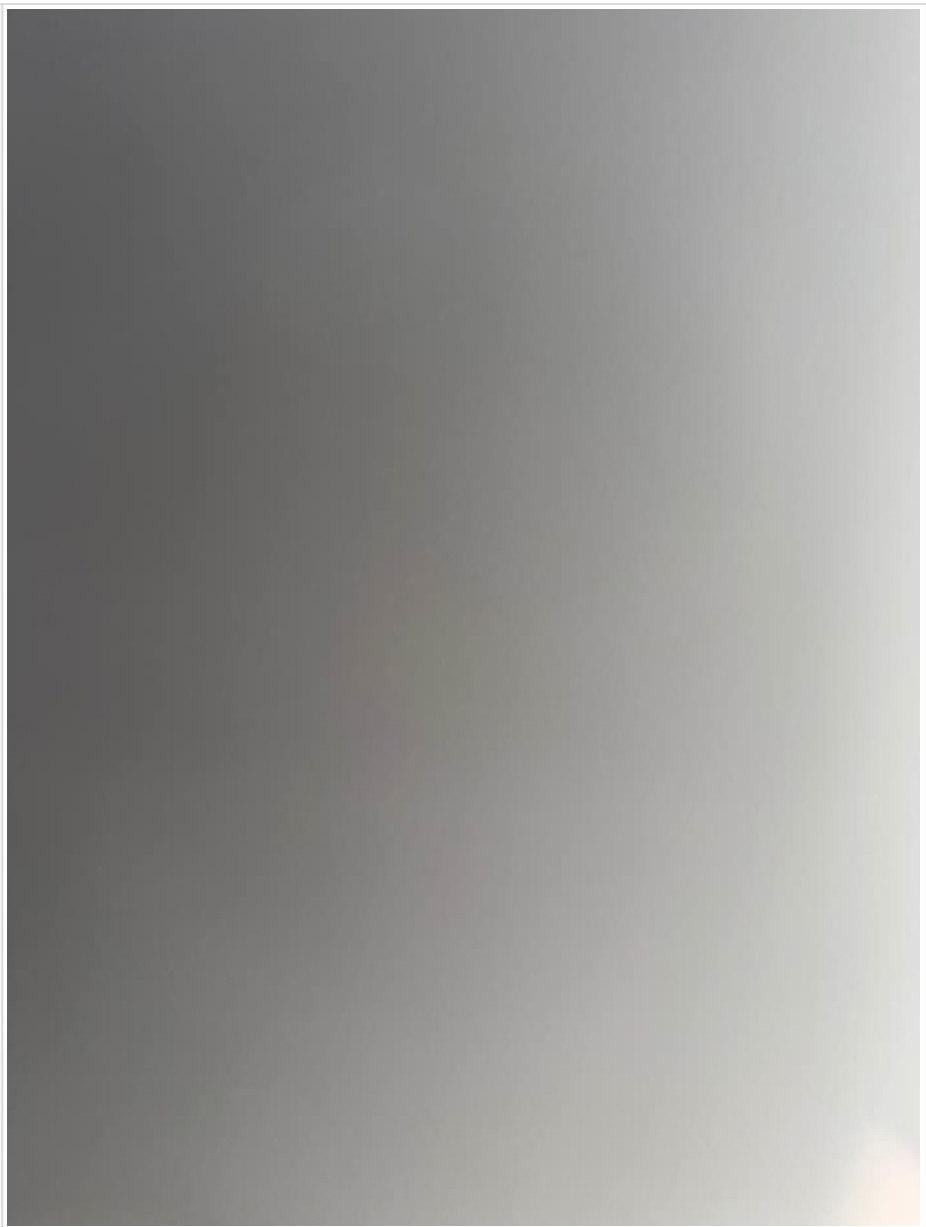



 40.123772, -82.947527

Verify the cable has been dropped through the roof and into the ceiling of location

Yes

HVAC Post-Install Survey

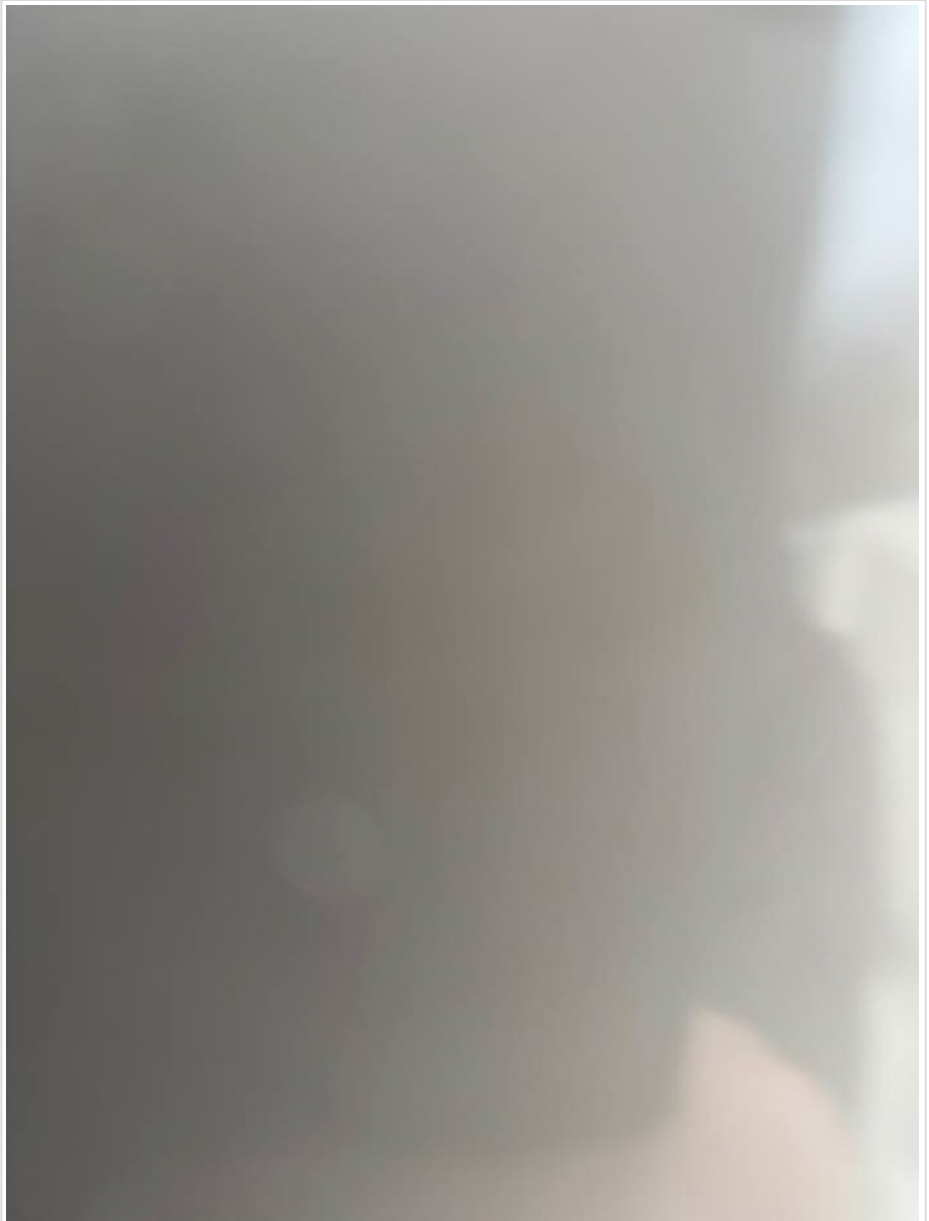
<p>Please take a picture of the cable dropped through the roof and into the ceiling of location</p>	
	 40.123785, -82.947507
<p>Verify that all packaging materials have been removed from unit</p>	<p>Yes</p>
<p>Verify installation of outdoor air hood</p>	<p>Yes</p>
<p>Verify installation of flue exhaust and inlet hood (gas units only)</p>	<p>Yes</p>
<p>Verify that condensate connection is installed per installation instructions</p>	<p>Yes</p>
<p>Verify that all electrical connections and terminals are tight</p>	<p>Yes</p>


HVAC Post-Install Survey

Verify gas pressure to unit gas valve is within specified range (gas units only)	Yes
Check gas pipe for leaks (gas units only)	Yes
Check that indoor air filters are clean and in place	Yes
Check that outdoor air inlet screens are in place	Yes
Verify that unit is level	Yes
Check outdoor fan propeller for location in housing/orifice and verify setscrew is tight	Yes
Verify that scroll compressors are rotating in the correct direction	Yes
Verify installation of thermostat/space sensor	Yes
Verify configuration values for electronic controls (based on Control set up checklist)	Yes
Verify that crankcase heaters have been energized for at least 24 hours	Yes
Verify convenience outlet is wired	Yes
Verify transformer tabs incorrect location. Voltage across RC should be between 25-27 Volts	Yes
Verify economizer moves freely without binding on wires or filters rack	Yes
Verify fan and blower set screws tightened and built aligned	Yes

HVAC Post-Install Survey

Please take photos of completed back of manual warranty sheets (note electrical values below can be taken from this)



 40.123793, -82.947514

Start Up - Electrical	Start Up - Electrical
Supply Voltage L1-L2	212.00
Supply Voltage L2-L3	212.00
Supply Voltage L3-L1	210.00
Compressor Amps Speed 1 - 2500 rpm L1	12.50
Compressor Amps Speed 1 - 2500 rpm L2	12.50
Compressor Amps Speed 1 - 2500 rpm L3	12.60

HVAC Post-Install Survey


Compressor Amps Speed 2 - 4500 rpm L1	
Compressor Amps Speed 2 - 4500 rpm L2	
Compressor Amps Speed 2 - 4500 rpm L3	
Electric Heat Amps L1 (if applicable)	
Electric Heat Amps L2 (if applicable)	
Electric Heat Amps L3 (if applicable)	
Supply Fan Amps at Max Speed L1	3.50
Supply Fan Amps at Max Speed L2	3.50
Supply Fan Amps at Max Speed L3	3.40
Start Up Temperatures	Start Up Temperatures
Outdoor Air Temperature F Dry Bulb	45.00
Return Air Temperature F Dry Bulb	70.00
Cooling Supply Air Temperature F Dry Bulb (Ideal differential 20F (+/- 5F))	50.00
Gas Heat Supply Air Temperature F (if applicable) (Ideal differential 20F (+/- 5F))	121.00
Electric Heat Supply Air Temperature F (if applicable) (Ideal differential 20F (+/- 5F))	0.00
Start Up Pressures	Start Up Pressures
Gas Inlet Pressure (in wg)	10.00
Gas Manifold Pressure Stage 1 (in wg)	1.50
Gas Manifold Pressure Stage 2 (in wg)	3.50
Refrigeration Suction Circuit A (psig)	129.00
Refrigeration Suction Circuit A Superheat deg F	15.00
Refrigeration Discharge Circuit A (psig)	211.00
Refrigeration Discharge Circuit A Subcooling deg F	10.00

HVAC Post-Install Survey

Verify refrigerant charge using charging charts	Yes
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Post-Install Unit Air Flow #4

Section 1

Is the economizer fully operational?	Yes
	 40.123741, -82.947571
Outside air intake damper minimum position: (Target: X> 5%)	6

Post-Install Unit Connectivity #4

RTU Post Install Survey

HVAC Serial Number	N2K4840570
--------------------	------------

HVAC Post-Install Survey

Take a photo of the HVAC nameplate



40.123770, -82.947520

01-31-2025 02:51 PM


Area served by HVAC

KITCHEN

HVAC Post-Install Survey

Take a photo of the RTU number
(It may be handwritten on the RTU
or on a decal/sticker)



 40.123790, -82.947516

Where is the RTU located on site?	ROOF
Type of RTU	Other
Other Type of RTU	YORK
Take a photo of the HVAC RTU controller display - showing the MAC Address you entered	
Take a photo of the HVAC RTU controller display - showing the BAUD rate you entered	
Take a photo of the HVAC RTU controller display - showing the BAS Protocol you picked	

HVAC Post-Install Survey

Take a photo of the HVAC RTU controller - showing the BAS terminals wired with 3 wires distinctively colored	
Take a photo of the BACnet router - showing the COM1 terminals with 3 wires distinctively colored	
Take a photo of the BACnet router - showing the Ethernet port's 2 LEDs illuminated	
Take a photo of the BACnet router - showing the power terminals connected to the DC power supply	
Take a photo of the BACnet router - showing the 6 front LEDs illuminated	
Take a photo of the BACnet router - showing the label printed by Budderfly	
Take a photo of the Network Switch in Budderfly's network enclosure - showing the Ethernet port connected to the BACnet router from the other end of the cable	
Take a photo of the ethernet cable plugged into the Lennox Controller	
Take a photo of the ethernet cable plugged into the Budderfly Network Switch	
A Photo of the Lennox Controller after successful connection and the WIFI LED is steady green	
Instruction	The remaining questions require you uploading screenshots from the core controller app. You need screens for the "Network Setup Option" and the following parameters: Network, Device Instance, Control Mode, IP Configuration, Remote Service Access.
Take a screenshot of the core controller app after you pair the RTU successfully	
Take a screenshot of the core controller app (Network Setup) - "Network Setup Option"	
Take a screenshot of the core controller app (Network Setup) - "Network" parameter	
Take a screenshot of the core controller app (Network Setup) - "Device Instance" parameter	
Take a screenshot of the core controller app (Network Setup) - "Control Mode" parameter	

HVAC Post-Install Survey

Take a screenshot of the core controller app (Network Setup) - "IP Configuration" parameter	
Take a screenshot of the core controller app (Network Setup) - "Remote Service Access" parameter	
Instruction	We need clear indication that the cable was run for each HVAC unit. If there are 4 HVAC units then 4 cables are to be run and pics of each cable needs to be included in the survey.
Please provide pics of the Ethernet cable run from the connectivity switch to the HVAC unit(s)	
Please contact the Budderfly Support team at 475-270-4895 with any issues during install and for validating that a proper checkout has been completed.	

Signature

Instruction	Please walk through the work area and explain to the Manager on Duty the work that was performed. Afterward, have the Manager on Duty sign off
Warning	Manager on Duty: Sign off with your full name only after the Budderfly technician has walked you through the work performed.
Date	01-31-2025
MOD/Customer Representative Signature of Approval	SHALITA BROWN
	01-31-2025 03:11 PM

HVAC Post-Install Survey

Form Locations

