

AC System **Project Name:** Project ID: 266891

Date of Service: Fri, 03 Apr 2020 8:00 AM Preventative Maintenance Work Performed:

Equipment Name: Whole Home



Prepared By:

Company: Summers & Zim's Inc. Address: 403 Valley Avenue Atglen, PA 19310

Technician: Ken Walker

iManifold ID: iConnect Model 900C_C4326



Project Information

Captured Measurements Out

Timestamp Fri, 03 Apr 2020 9:23 AM

Pressure Measurements

Measurement Type	Value	VeriFied*
Circuit 1		
Suction Pressure	96.0 psi	
Liquid Pressure	341.9 psi	

Temperature Measurements

Circuit 1	
Suction Sat Temp	29.00 °F
Suction Line Temp	43.88 °F
System SuperHeat	14.88 °F
Liquid Sat Temp	104.53 °F
Liquid Line Temp	95.90 °F
System SubCooling	8.63 °F
Discharge Line Temp	175.00 °F
Outdoor Air Temp	80.00 °F
Outdoor Air Relative Humidity	-

Air Side Measurements

All Side Measurements	
Supply Air Dry Bulb	42.62 °F
Supply Air Wet Bulb	40.89 °F
Supply Air Relative Humidity	86.90 %
Return Air Dry Bulb	65.12 °F
Return Air Wet Bulb	54.19 °F
Return Air Relative Humidity	49.30 %
Airflow Method	Other
Airflow Per Ton	400 cfm
Total Airflow	1200 cfm

System Electrical Measurements

Electrical:	Condenser

Nominal System Voltage	208volts/230volts
Phase	1
L1 Voltage to Ground	122.2 volts
L1 Current	15.87 amps
L2 Voltage to Ground	121.7 volts
L2 Current	15.92 amps
Power Factor	0.95

Electrical: Air Handler

Nominal System Voltage	120volts
Blower Motor Type	ECM
Phase	1
Voltage to Ground	121.7 volts
Current	5.06 amps
Power Factor	0.65

Capacitance Test: Compressor

Rated Microfarads	45 uF
Voltage - RUN [C] to START [HERM]	343 volts
Current (amps) - START [HERM] wire	5.75 amps
Measured	44.47 uF
Deviation	1.18 %
Status	Success 🚵

System Profile

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Standard TX
Refrigeran
R410A

Nominal Tonnage

Type of Condenser 10-12 SEER: Mid Eff

Type of Evaporator Standard Operation: DTD 35

Target System Superheat

System Information

Condenser Manufacturer AMERICAN STANDARD

Condenser Serial # 5074PRK1F

Air Handler Manufacturer AMERICAN STANDARD

Air Handler Serial # 5395HF97G

Evaporator Manufacturer AMERICAN STANDARD

Evaporator Serial #

8201SSN5G

Dehumidification

Type of System Type of Metering Device

nt

Design/Rated Capacity(BTU/hr)

Design/Rated Airflow

1200

Target System Subcooling

Condenser Model #

4A7A2036A1000AB

Air Handler Model # AUY080R9V3W5

Evaporator Model # 4TXCB036BC3HCAA

System Performance

System Capacity		Evaporator Performan	ce
BTU/Hour Total	37756	Target Temperature Split	-
BTU/Hour Sensible	29176	Temperature Split	22.50
BTU/Hour Latent	8580	Deviation From Target	-
BTU/Hour Derated	30316	System Electrical Effic	ciency
Enthalpy In	22.81	Condenser Watts	3683
Enthalpy Out	15.71	Air Handler Watts	400
Adjusted Target %	124.54	Total Watts	4083
Actual Capacity %	104.88	Current EER	9.25
Sensible Heat Ratio	0.77		
Bypass Factor	0.14		
COP	2.71		

0.96 gal/h



Measurements

Capacitance Test: OFM



iManifold Pro Mode

Pre Inspection

Is Equipment in Operating Condition? Yes

Condenser

Cleanliness Score 1 (Very Clean: 0-30% Dirty)

Coil Type Standard fin and tube

Evaporator

Cleanliness Score 1 (Very Clean: 0-30% Dirty)

Coil Type Standard fin and tube

Is it accessible to clean? Yes

Blower

Cleanliness Score 1 (Very Clean: 0-30% Dirty)

Is it accessible to clean? Yes

Filter

Cleanliness Score 3 (Extremely Dirty: 51-100% Dirty)

Filter 1



Corrective Measures

Condenser

Condenser cleaned? No

Not cleaned reason Not dirty

Repaired any bent fins? No

Photo



Evaporator

Evaporator cleaned? No

Not cleaned reason Not dirty

Blower

Blower cleaned? No

Not cleaned reason Not dirty

Filter

Filter cleaned? Yes

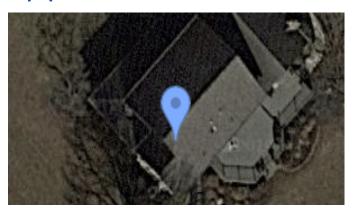
Filter 1





Photo Page 1

Equipment Geolocation



Latitude: Longitude:

Customer Application 1 Photo



Growth in evaporator coil case





Air Conditioning Mechanical Inspection

Thermostat	
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Level

Secured to wall



Filter

Standard

Filter 1 Dimensions 16in, X25in, X1in,

Filter 1 Quantity 1

Held in place

Filter door is in place

Cleaned/Replaced



Has been cleaned

Slope is OK

Fittings are tight

Blower Motor

Bearings are noise free

Wheel is Balanced

Amp draw is Ok

Blower motor rated(amps): 8.5

Blower motor actual(amps): 5.11

Dip switches & settings are OK

General

Low Voltage wiring is tight

High Voltage wiring is tight

Doors & panels are secured

Polarity is correct

Polarity Voltage (volts): 94.7

Ducts are not noisy or popping

Dampers are correctly positioned

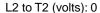
Vents are not covered

AC Unit

Appearance is OK

Voltage drop across contactor

L1 to T1 (volts): 0



Wirings & connections are OK

Chassis & pad are level

No excess vibrations

Condenser base pan ports are clean

Condenser coil is clean

Disconnect voltage drop

L1 to T1(volts): 0

Compressor current reading is OK

Number of Circuits: 1

Circuit 1:

Common (amps): 13.7

Start (amps): 5.87

Run (amps): 12.26

Condenser fan motor current draw is OK 📤

Number of Fans: 1

Fan 1:

Fan Rated (amps): 1.4

Fan Actual (amps): 1.37

Schrader cores were checked

Refrigerant caps & seals are in place

Suction line insulation intact

Wire insulation intact

Service Wrap-up

Unit is operational

Everything is left how it started

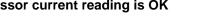
Sticker is on the unit

Thermostat was set back

Temperature (F): --

L2 to T2(volts): 0





































Job Notes

Preformed Annual preventative maintenance on ac system found some spot of growth in evaporator coil case. Recommend installing a UV light to help prevent it fro getting worse. Replaced air filter and cleaned and flushed condensate pump and drain line.

