



## Summers & Zim's Report Pro

**Project Name:** AC System  
**Project ID:** 266891  
**Date of Service:** Fri, 03 Apr 2020 8:00 AM  
**Work Performed:** Preventative Maintenance  
**Equipment Name:** Whole Home

**Prepared For:**

**Customer:**

**Address:**

**Phone No:**

**Email ID:**

**Prepared By:**

**Company:** Summers & Zim's Inc.

**Address:** 403 Valley Avenue  
Atglen, PA 19310

**Technician:** Ken Walker

**iManifold ID:** iConnect Model 900C\_C4326



**iManifold**<sup>®</sup>

DRIVEN BY iCONNECT<sup>®</sup>

# Summers & Zim's Report Pro

## Project Information

### Captured Measurements Out

Timestamp Fri, 03 Apr 2020 9:23 AM

### Pressure Measurements

Measurement Type	Value	VeriFied*
<b>Circuit 1</b>		
Suction Pressure	96.0 psi	
Liquid Pressure	341.9 psi	

### Temperature Measurements

Measurement Type	Value	VeriFied*
<b>Circuit 1</b>		
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

Measurement Type	Value	VeriFied*
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

<b>Type of System</b>	Air Conditioning	<b>Type of Metering Device</b>	Standard TXV
<b>System Configuration</b>	Split	<b>Refrigerant</b>	R410A
<b>Nominal Tonnage</b>	3	<b>Design/Rated Capacity(BTU/hr)</b>	36000
<b>Type of Condenser</b>	10-12 SEER : Mid Eff	<b>Design/Rated Airflow</b>	1200
<b>Type of Evaporator</b>	Standard Operation: DTD 35	<b>Target System Subcooling</b>	10
<b>Target System Superheat</b>	14.5		

### System Information

<b>Condenser Manufacturer</b>	AMERICAN STANDARD	<b>Condenser Model #</b>	4A7A2036A1000AB
<b>Condenser Serial #</b>	5074PRK1F		
<b>Air Handler Manufacturer</b>	AMERICAN STANDARD	<b>Air Handler Model #</b>	AUY080R9V3W5
<b>Air Handler Serial #</b>	5395HF97G		
<b>Evaporator Manufacturer</b>	AMERICAN STANDARD	<b>Evaporator Model #</b>	4TXCB036BC3HCAA
<b>Evaporator Serial #</b>	8201SSN5G		


### System Performance

<b>System Capacity</b>		<b>Evaporator Performance</b>	
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	<b>System Electrical Efficiency</b>	
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		
Dehumidification	0.96 gal/h		



# Summers & Zim's Report Pro Measurements

## Capacitance Test: OFM

Rated Microfarads	5 uF
Voltage - COMMON to LOAD	336.7 volts
Current (amps) - LOAD	0.65 amps
Measured	5.12 uF
Deviation	-2.42 %
Status	Success 

---



# Summers & Zim's Report Pro

## 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



# Summers & Zim's Report Pro

## Photo Page 1

### Equipment Geolocation



Latitude: [REDACTED]  
Longitude: [REDACTED]

### Customer Application 1 Photo



### Growth in evaporator coil case







# Summers & Zim's Report Pro

## Air Conditioning Mechanical Inspection

### Thermostat

- 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 








### Condensate Drain Line

- 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

L2 to T2 (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

L2 to T2(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): --



# Summers & Zim's Report Pro

## Notes

### Job Notes

Performed 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.

