DAIKIN 2-DAY TRAINING
DAY 2

1-888-823-4357

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

NATE ACCREDITATION

8 HOURS per day TOWARD NATE recertification

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

Multi Port Priority:

How Does it Work?

Option #1 Floating Priority (First Come First Serve)

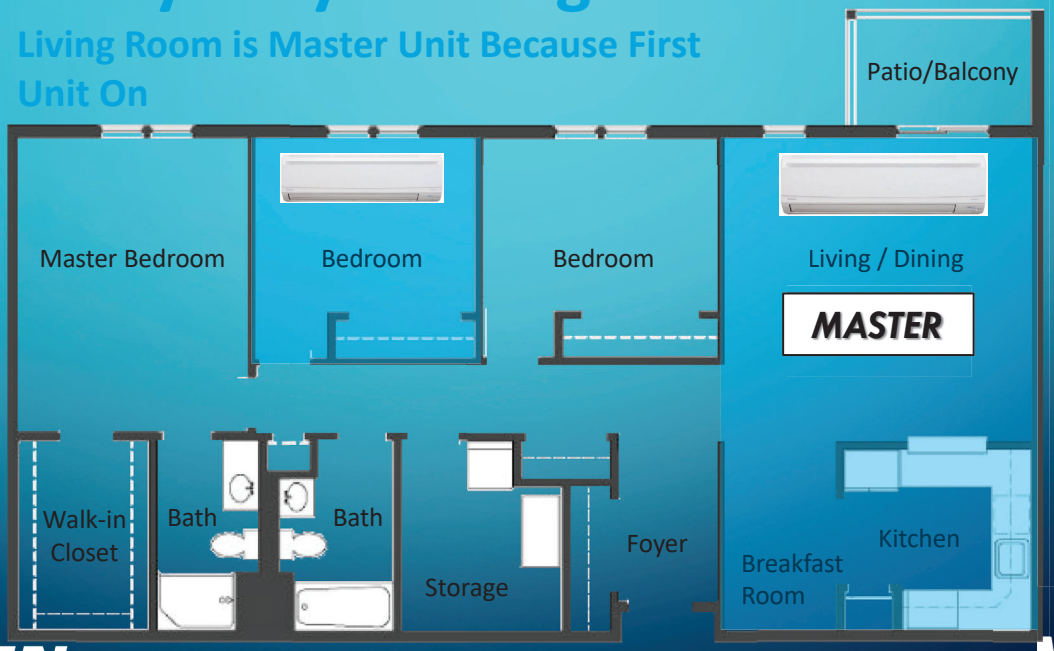
DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

THE MULTI PORT CONCEPT: FLOATING PRIORITY

Everybody Cooling

Living Room is Master Unit Because First Unit On



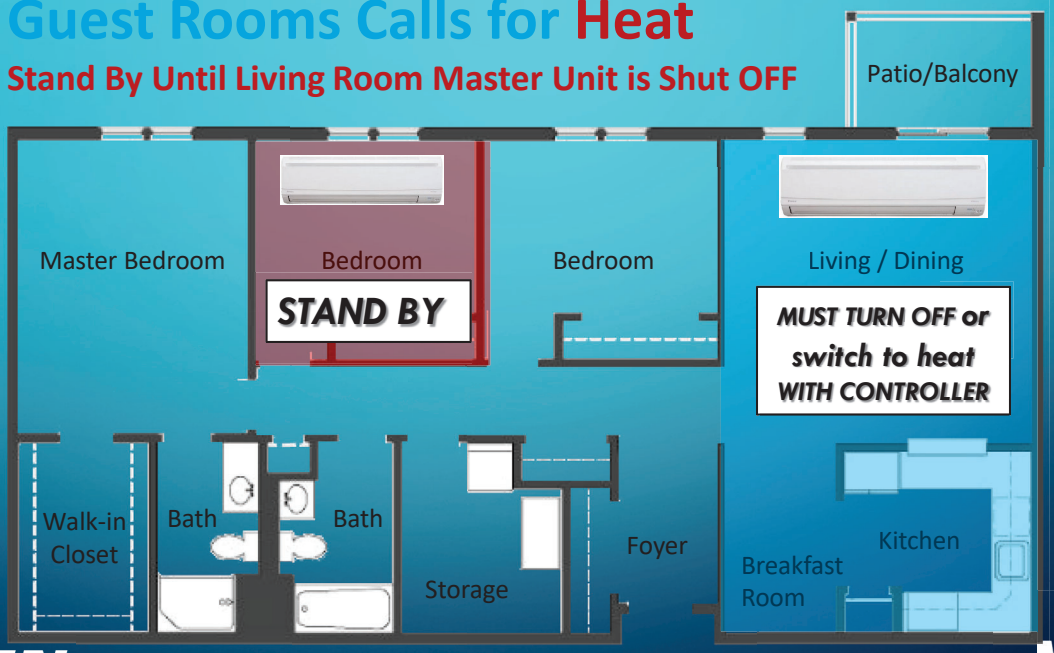
DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

THE MULTI PORT CONCEPT: FLOATING PRIORITY

Guest Rooms Calls for Heat

Stand By Until Living Room Master Unit is Shut OFF

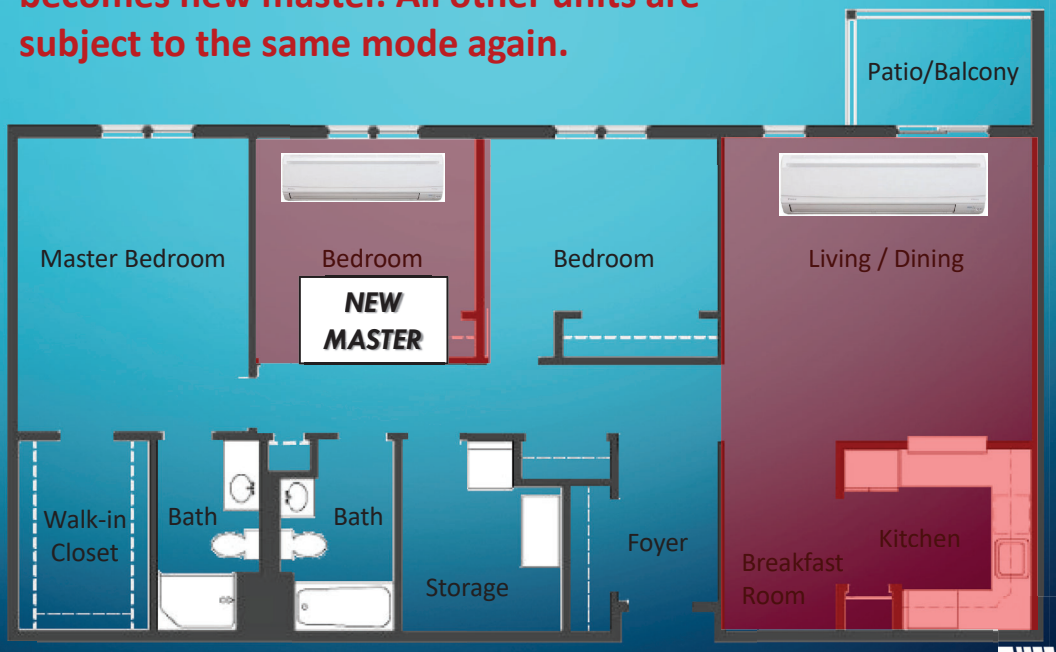


DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

THE MULTI PORT CONCEPT: FIRST COME FIRST SERVE

Once original master is OFF, guest bedroom becomes new master. All other units are subject to the same mode again.



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

Multi Port Priority:

How Does it Work?

Option #2 Dedicated Priority

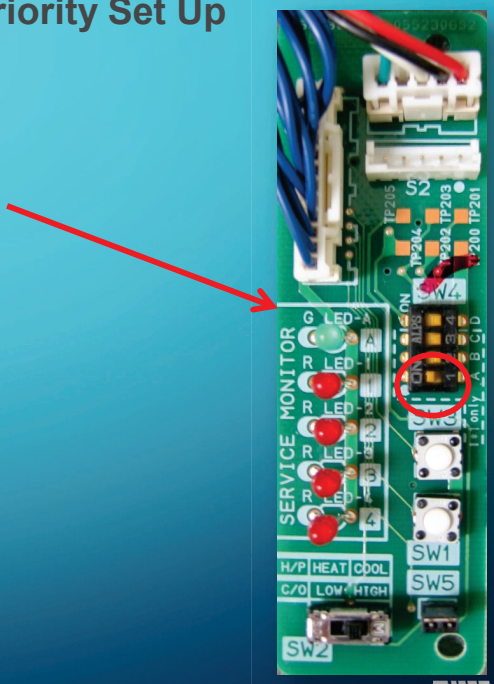
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

SETTING PRIORITY

Multi 2, 3, & 4-Port Priority Set Up

- You <u>should</u> choose a Priority Unit during install.
- For 2-Port Multi. Inside outdoor unit on PCB slide A or B dip switch over opposite others.
- For a 3 or 4-Port Multi. Inside outdoor unit on PCB slide A, B, C or D dip switch over opposite others.
- This must be done with power off



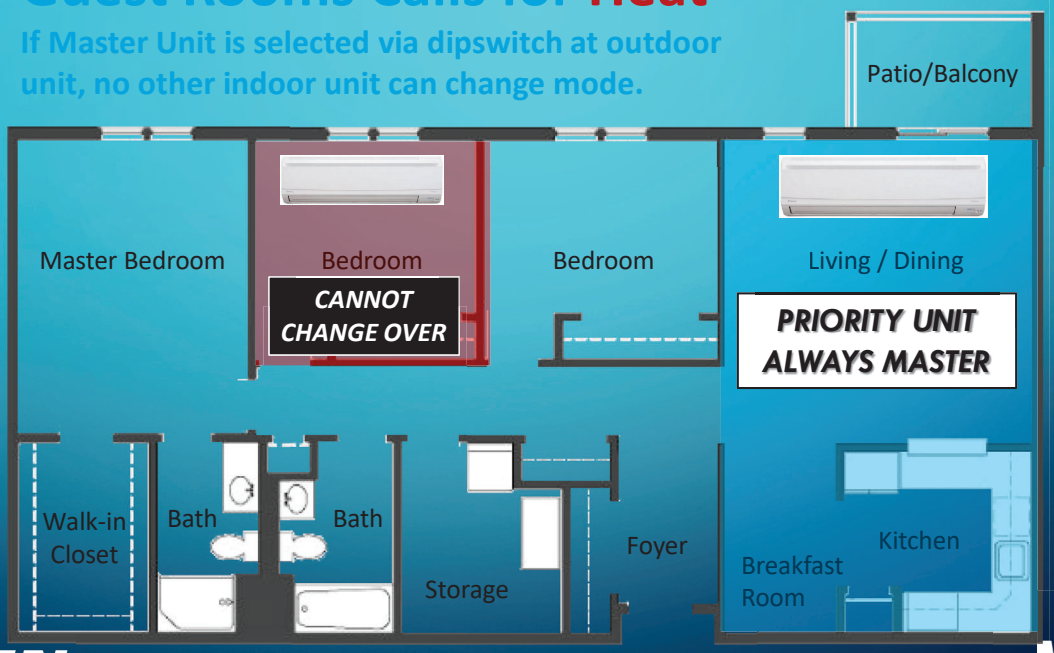
DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

THE MULTI PORT CONCEPT: DEDICATED PRIORITY

Guest Rooms Calls for Heat

If Master Unit is selected via dipswitch at outdoor unit, no other indoor unit can change mode.



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

SYSTEM START-UP AND COMMISSIONING

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

SYSTEM START UP CHECKLIST

- Indoor and outdoor units are installed securely & are level.
- Pressure test system to 550 PSIG for 24 hours.
- Perform triple evacuation on system.
  - To 500 microns breaking with dry Nitrogen each time
- Calculate liquid line length and corresponding required additional refrigerant charge.
  - Weigh in additional charge to liquid line.
- Open service valves.
- Check supply voltage (L1 to L2).
  - Must read between 187 and 253 volts.

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

SYSTEM START UP CHECKLIST

- Ensure all drain pipe is properly connected.
- Ensure all filters are in place.
- Ensure all refrigerant piping is properly insulated.
  - Insulate each line independently.
- Power system on for 6 hours before startup.
  - Single Split – Turn on the indoor unit using the remote control and test each mode of operation
  - Multi Split – Turn on each indoor unit individually using the remote control and test each mode of operation.
    - Priority Set-up

NOTE: All modes of operation may not be available depending on the outside ambient conditions, see the sequence of operation for more information.

If system does not operate properly, proceed to Troubleshooting

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

Ductless Startup Checklist

Equipment Requirements to Perform Proper Maintenance:

- 2-Stage Vacuum Pump
- Micron Gauge (Digital or Analog)
- Multimeter
- Schrader Valve Removal Tools
- Megger Meter
- Hoses
- Flaring Tools
- Common Hand Tools
- Manifold Gauges
- Voltmeter
- Ammeter
- Temperature Probe


Micron gauge


Schraeder Valve removal tool


Vacuum Pump


Megger meter


Bluetooth pipe clamps


Temperature probe


Service Checker


Multimeter


Pressure gauges


Wireless and wired Dchecker


Torque wrenches

Large Tool Bag

Daikin offers a small and large Tool Bag:

These items can also be purchased individually from your local distributor.

BACK

Ductless Startup Checklist

Customer/Technician Information

Date		Time Arrived	Time Departed
Customer Name			
Customer Number		Customer Phone	
Customer Email			
Service Address			
Service Company			
Address			
Technician Name			
Technician Phone		Company Phone	
Technician Email			
Building Type	No. of Floors	No. of Indoor Units	No. of Outdoor Units
Brief Description of Equipment Condition			
Other Jobsite Observations			

BACK

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

Ductless Startup Checklist

4 Wire Communication Outdoor Residential Unit Inspection

Model name	Unit No.	System name and installation site	Piping length

Item	Method	Standard	Actual measurement		Judgement
Compressor	Measure using 500V megger (Measure U, V, and W terminals, and enter the minimum value)	1MΩ min.	Comp. 1 U. V. W.	 MΩ MΩ MΩ	
Power supply voltage	Measure when unit does not operate and when compressor operates	Within ±10% of rated voltage	L1 to Gnd L2 to Gnd L1 to L2	V V V	
Outdoor unit temperature data	By thermistor thermometer (Wait 15 minutes or more after startup to take measurement)		Outdoor temp.	°F	
		< +9°F outdoor temp.	Suction air temp.	°F	
		Suction Air Temp+ 9°F-18°F	Discharge air temp.	°F	
Target disch. compressor temp.	Record from Dchecker	Dchecker measurement		°F	
Actual compressor discharge pipe temp.	By Temperature Clamp/Temperature probe			°F	
Outdoor discharge air temperature	By Temperature Clamp/Temperature probe	27°F to 45°F		°F	
Suction pipe temperature	By Temperature probe	28°F to 50°F (operating conditions affect)		°F	
Inlet Expension valve temperature	By Temperature probe	Discharge air temp + 27°F ± 14°F			
Super Heat (SH)	Calculation: = suction pipe temp - evaporation temp.	9°F ± 5°F		°F	
Expansion valve pulses	Using Dchecker	Record pulses		pulses	
ΔT	Calculation: = discharge air temp. - suction air temp.	18°F ± 27°F			
Protections	Record from Dchecker	Value of 255 means inective			

4 Wire Communication (Multi Split) Outdoor Residential Unit Inspection

Item	Method	Standard	Actual measurement				Judgement
			IDU A	IDU B	IDU C	IDU D	
Liquid pipe temperature	Measure by temperature probe	Navigation controller or service checker	°F	°F	°F	°F	
	Measure with Dchecker		°F	°F	°F	°F	
Gas pipe temperature	Measure by temperature probe	Navigation controller or service checker	°F	°F	°F	°F	
	Measure with Dchecker		°F	°F	°F	°F	
Expension Valve Pulses	Measure with Dchecker	Record pulses					

Judgement: G=Good, RM=Requires maintenance, RS=Requires service, GMS=Good after maintenance or service

Note: Enter NA for items that do not require inspection.

BACK

Ductless Starup Checklist

4 Wire Communication Indoor Residential Unit Inspection (1 of 2)

Indoor Unit A (Use for single phase indoor unit)

	Model name	Unit No.	System name and installation site	Piping length
Indoor unit A				

Item	Method	Standard	Actual measurement	Judgement
Indoor unit temperature data	By thermistor thermometer (Wait approx. 15 minutes after startup to take measurement)	In cooling: Δt= 18.8°F or more for single splits In heating: Δt= 36°F or more for multi splits	Suction air temp. °F	
			Discharge air temp. °F	
			Temperature difference Δt °F	
Indoor heat exchanger temperature	Record from Dchecker		°C	

Judgement: 0=Good, RM=Requires maintenance, RS=Requires service, GMS=Good after maintenance or service

Note: Enter NA for items that do not require inspection.

Indoor Unit B

	Model name	Unit No.	System name and installation site	Piping length
Indoor unit B				

Item	Method	Standard	Actual measurement	Judgement
Indoor unit temperature data	By thermistor thermometer (Wait approx. 15 minutes after startup to take measurement)	In cooling: Δt= 18.8°F or more for single splits In heating: Δt= 36°F or more for multi splits	Suction air temp. °F	
			Discharge air temp. °F	
			Temperature difference Δt °F	
Indoor heat exchanger temperature	Record from Dchecker		°C	

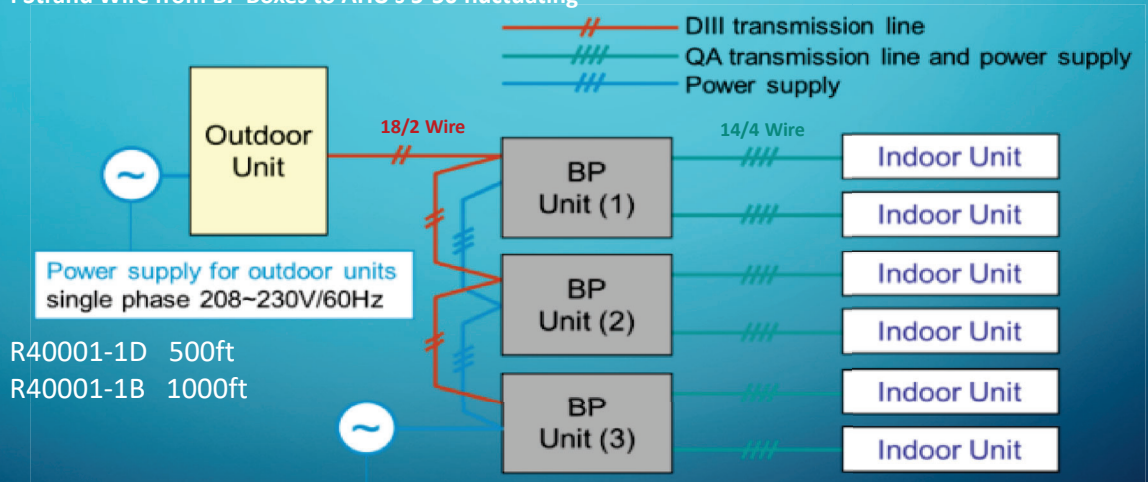
Judgement: 0=Good, RM=Requires maintenance, RS=Requires service, GMS=Good after maintenance or service

Note: Enter NA for items that do not require inspection.

BACK

ELECTRICAL WIRING

- 208/230V Power Circuit to Outdoor Unit
- 208/230V Power Circuit to Closest Branch Port Box (Daisy Chain Wire to other BP Boxes)
- 18/2 AWG from Outdoor to Closest Branch Port (Daisy Chain Wire to other BP Boxes) 16 VDC
- 14/4 Strand Wire from BP Boxes to AHU's 5-50 fluctuating



R40001-1D 500ft
R40001-1B 1000ft

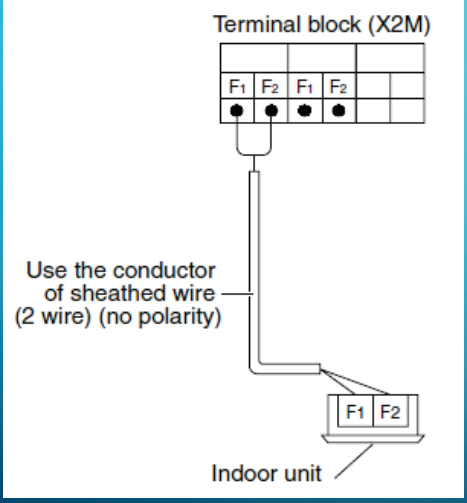
Max Wiring Length between units	656 ft.
Total System Wiring Length	984 ft.

Always follow local codes

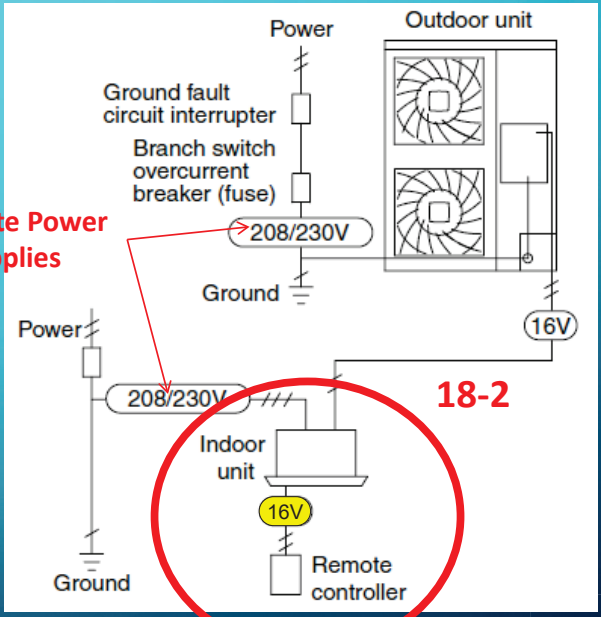
DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

SKYAIR WIRING (2 WIRE)



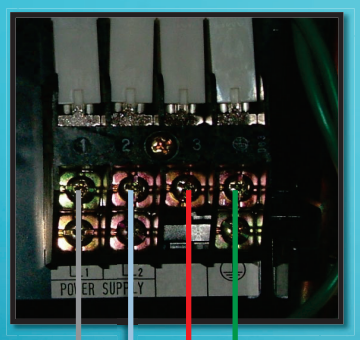
Separate Power Supplies



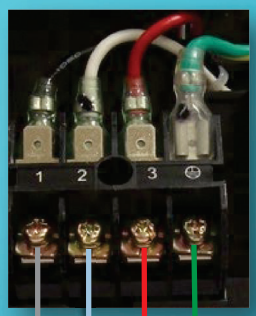
DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

DUCTLESS WIRING: OUTDOOR POWERS INDOOR



14/4 Non-Shielded Stranded Wire



1 to 2 = 208/230 VAC

2 to 3 = 5-50 VDC Fluctuating

1,2,3 to G = 120 VAC

1
2
3
G

Illustration shows Single Split connections, other applications may differ.

208/230V

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

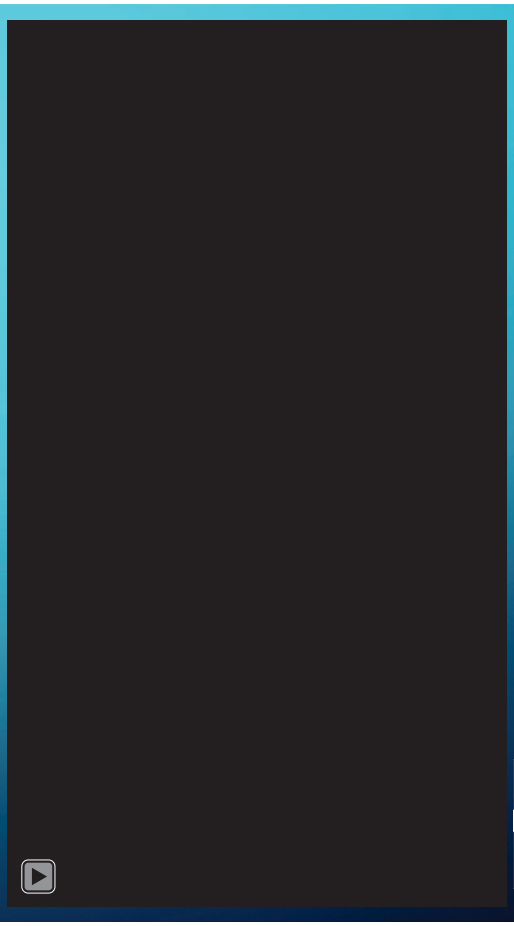
COMMUNICATION CIRCUIT DIAGNOSTICS

1. 2 to 3 = 5 to 50 VDC fluctuating (when operating properly)
2. Disconnect power to outdoor unit. Disconnect #3. With 3 disconnected, from the outdoor unit, power back up. Put voltage meter on continuity. Test from 1 to 3. You should hear a faint click. Then set meter on VDC and measure voltage on 2 and 3. Approximate voltage should be 50VDC. Power down. Reconnect #3 to terminal block.
3. Disconnect #3 at indoor unit. Reapply power. Measure DC voltage across 2 and 3. Measured voltage should be approximately 5VDC.
4. If/when 1 and 2 are crossed, a constant audible (beeping) will be heard.
5. If/when 2 and 3 are crossed, you will receive a U4 code.

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

COMMUNICATION FLUCTUATING VOLTAGE 5-50 VDC TERMINALS 2-3

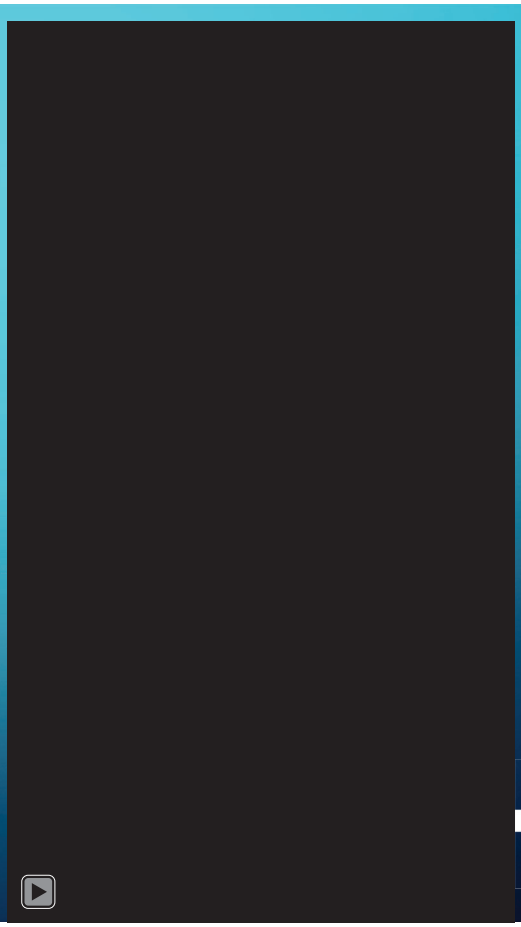


DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

CAUTION!

LINE VOLTAGE WILL BE PRESENT ON TERMINAL 3
1, 2, AS WELL AS 3 TO GROUND WILL ALL READ
APPROX. 120VAC TO GROUND



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DRY MODE ON DAIKIN DUCTLESS

DRY MODE

- The computer chip works to rid the room of humidity while maintaining the temperature as much as possible.
- Automatically controls temperature and airflow rate, so manual adjustment of the functions is unavailable.

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

POWERFUL MODE ON DAIKIN DUCTLESS

POWERFUL MODE

- Pushing the POWERFUL button on the remote control gives you a boost in cooling or heating power for a 20□minute period, even if the unit is already operating at high capacity.

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

POWERFUL MODE ON DAIKIN DUCTLESS

HOT START MODE

- Built into system. When the heating operation starts or when the unit changes from cooling to heating there is no cold draft released into the room.

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

AUTO RESTART MODE ON DAIKIN DUCTLESS

AUTO FAN SPEED

- To reduce operating sound and power consumption, the fan speed is automatically controlled by the micro-processor to suit the controller setting and prevailing room temperature.

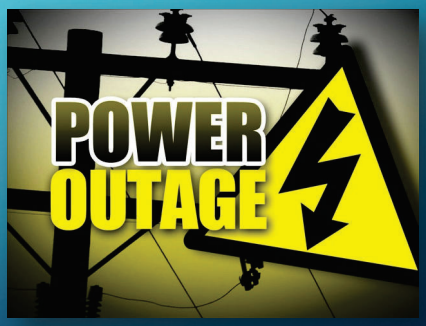
DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

AUTO RESTART MODE ON DAIKIN DUCTLESS

AUTO RESTART MODE

- The unit memorizes the operation mode, airflow and temperature settings. Should there be a power failure when the unit is in operation, it will automatically return to the same operating conditions when the power is restored.



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN
AIR INTELLIGENCE

DAIKIN COMFORT CONTROL APP

Always in control with the Daikin Comfort Control App

It can happen to anyone. You forgot to change the temperature of your heat pump system or air conditioner before leaving the house, or you will be delayed returning home and wish to avoid needlessly heating or cooling your home. What in the past would have resulted in wasted energy is no longer a problem. With the Daikin Comfort Control App and wireless interface adaptor, you are always in control. You can use your tablet or smartphone to access your Daikin system via the internet. Fault conditions can also be detected remotely, allowing a quick response to problems.

Google play

App Store

To download Scan QR Code

Daikin Comfort Control App Screen Shots

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

Functions accessible via the Daikin Comfort Control App

Auto Mode Your Daikin system will change between cooling or heating to maintain the desired temperature range

Fan Mode The indoor unit fan will run to circulate the air in the space without cooling or heating

Heating Mode Your Daikin system will only run in heating mode to maintain the desired heating temperature

Cooling Mode Your Daikin system will only run in cooling mode to maintain the desired cooling temperature

Dry Mode Your Daikin system will continually work to dry the air without affecting the temperature in the space

Schedule Adjust or set a schedule remotely

Easy Installation

It is necessary to install a Wireless Interface Adapter on the indoor unit of the system. WPS (Wireless Protected Setup) functionality of the adapter allows for quick setup: once the app is launched and the user registers and logs in, the app will find all connected units within the network. See below list of approved units

App functionality requires that a **BRP072A43** wireless Interface Adapter be connected to an approved Daikin system.

Compatibility

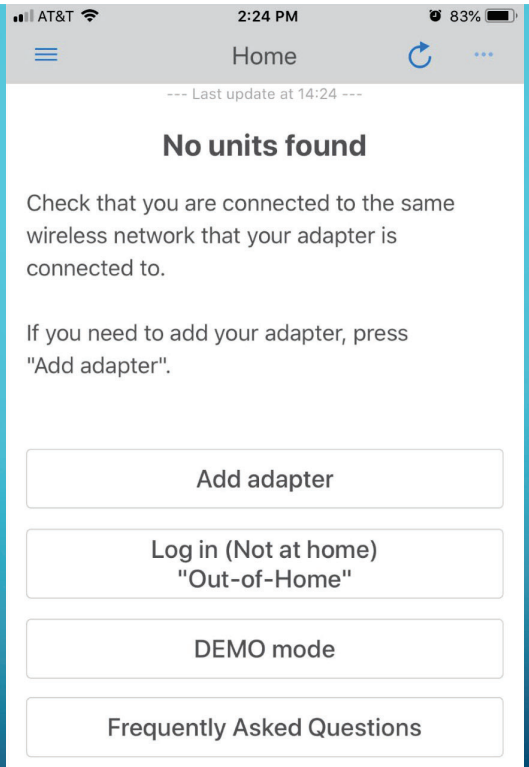
SERIES	MODELS
20	FTX_JMV3U,FTK_JMV3U
Daikin AURORA	FTX_NMV3U,FVXS_NMV3U
LV	FTXS_LV3U,FDXS_LV3U
NV	FTX_NV3U
19SEER Daikin AURORA/NPNL	CTXS_QVDJMV5, FTXR_TVDJMV5, CTXS_LV3U,FTXS_LV3U, FVXS_NMV3U, FDXS_LV3U, CTXS_LV3U
20SEER	FTXR_TVJMV5

Visit www.daikincomfort.com/ductlesswireless to learn more

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

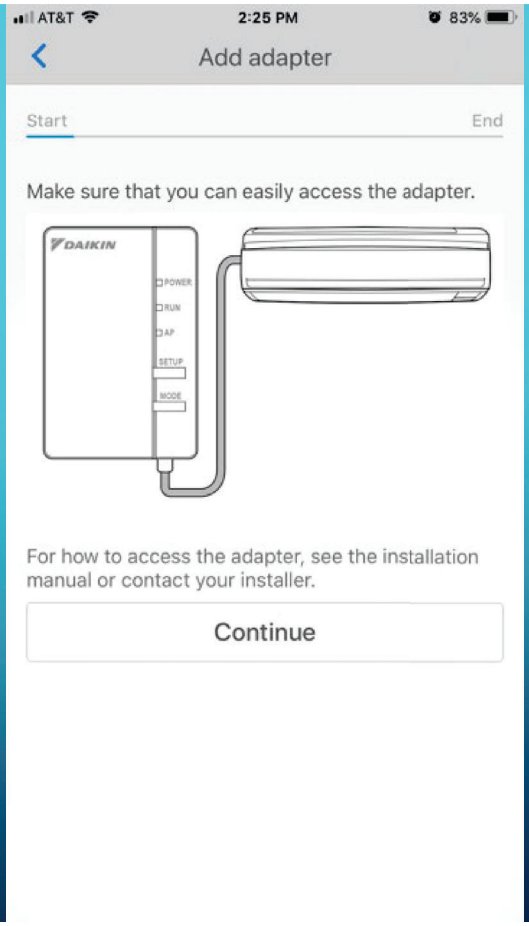
ComfortControl



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

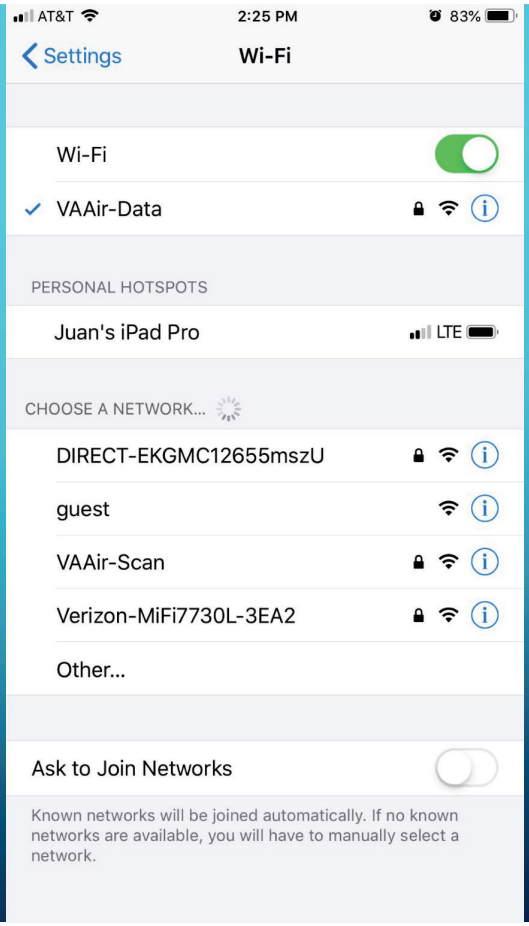
ComfortControl



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

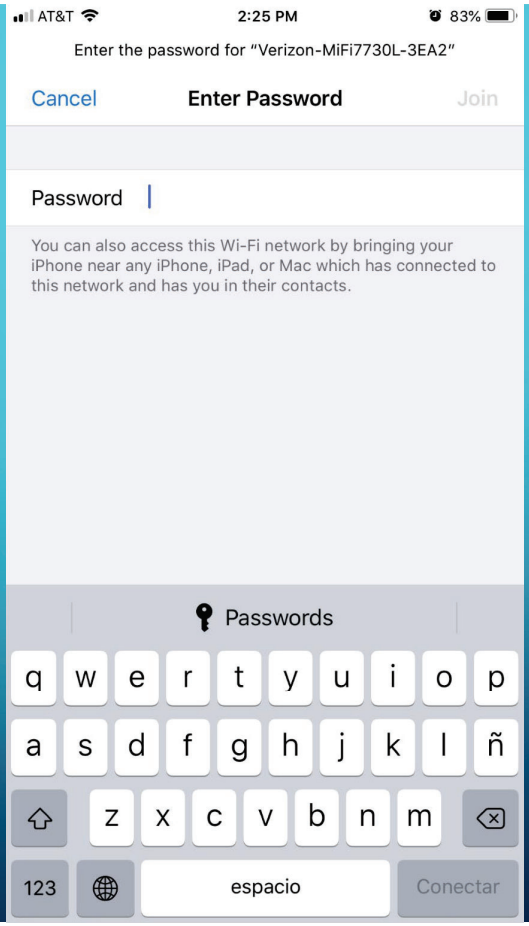
ComfortControl



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

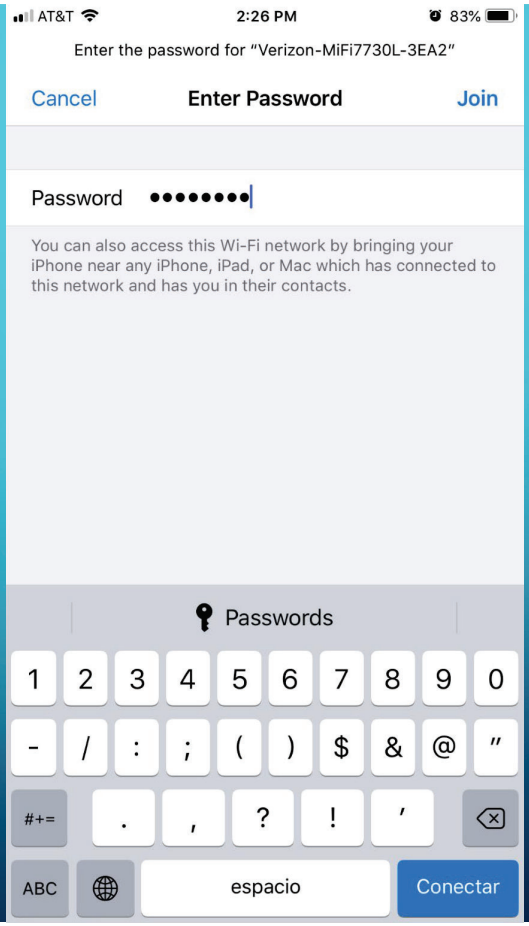
ComfortControl



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

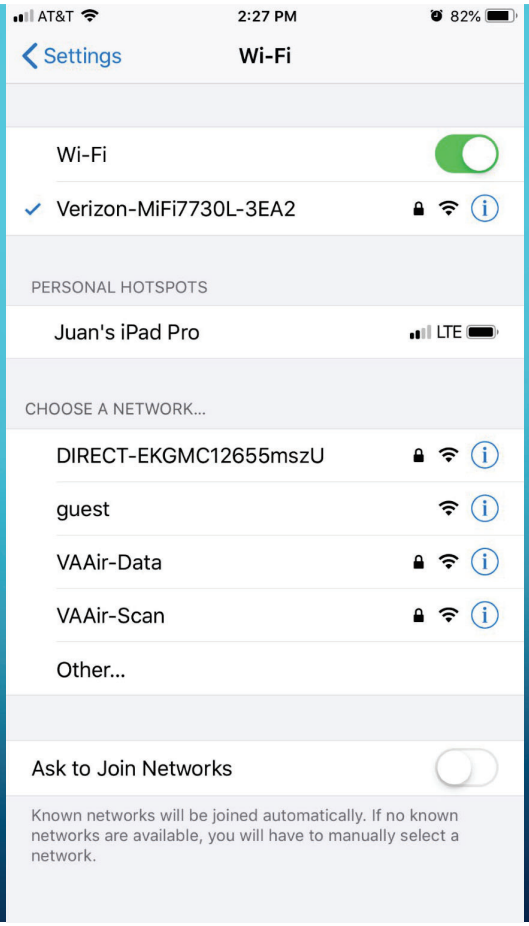
ComfortControl



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

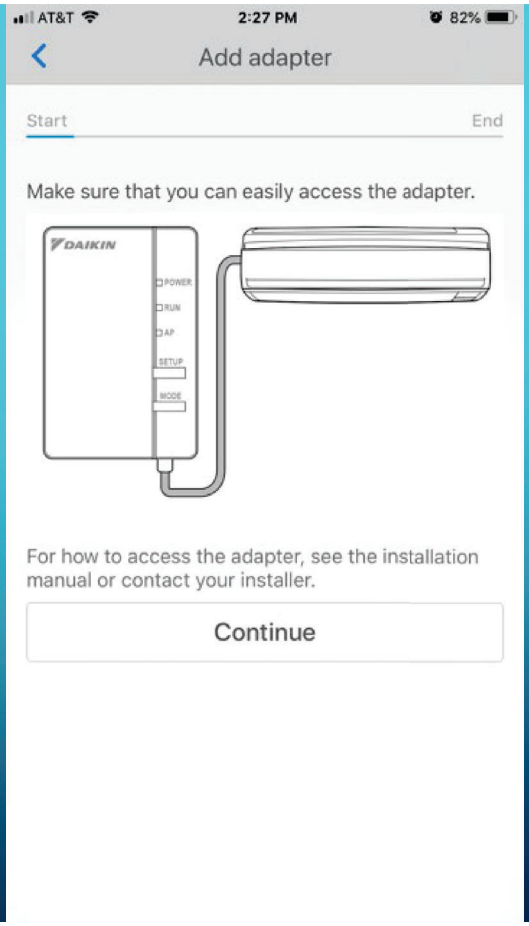
ComfortControl



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

AIR INTELLIGENCE™

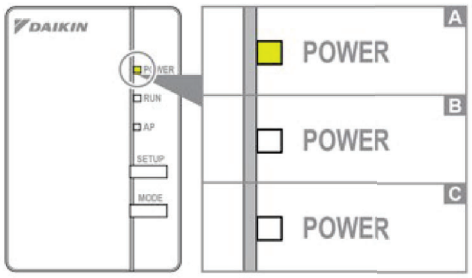
AT&T 2:27 PM 82%

Back

Add adapter

Start End

Is the POWER LED on continuously, does it blink, or is it off?



On continuously

Blinking

Not lit

VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

AIR INTELLIGENCE™

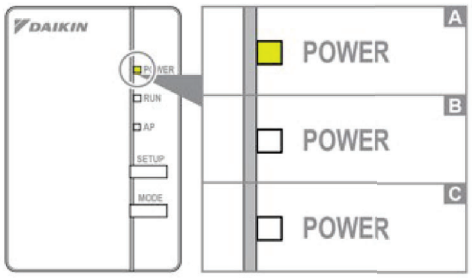
AT&T 2:27 PM 82%

Back

Add adapter

Start End

Is the POWER LED on continuously, does it blink, or is it off?



On continuously

Blinking

Not lit

VIRGINIA AIR

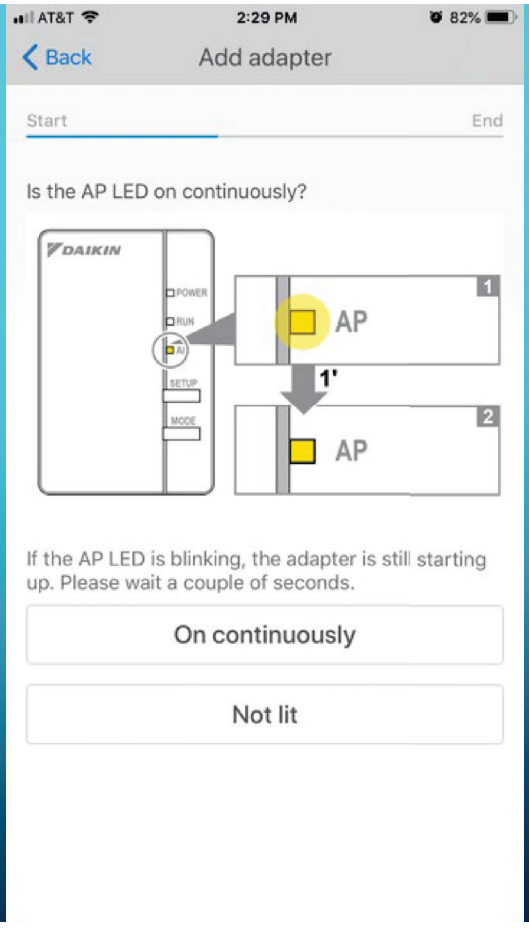
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

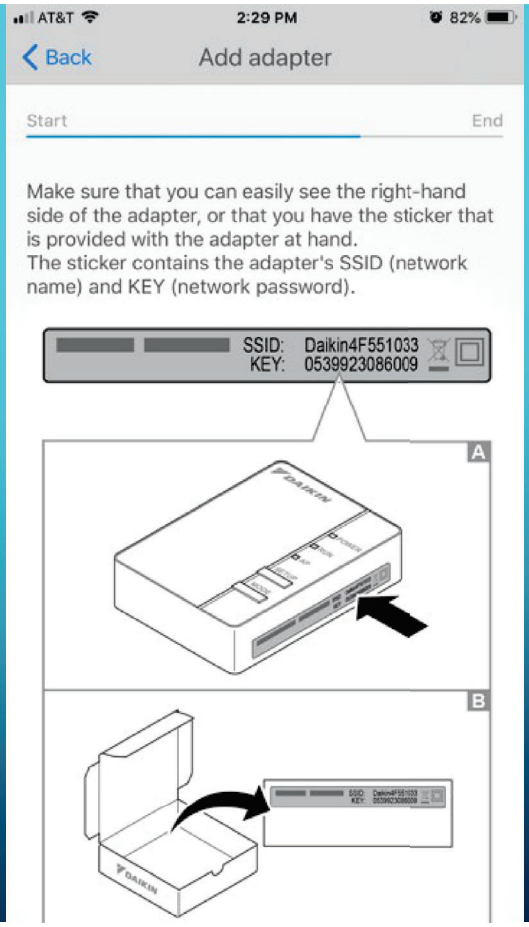


DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

AIR INTELLIGENCE™



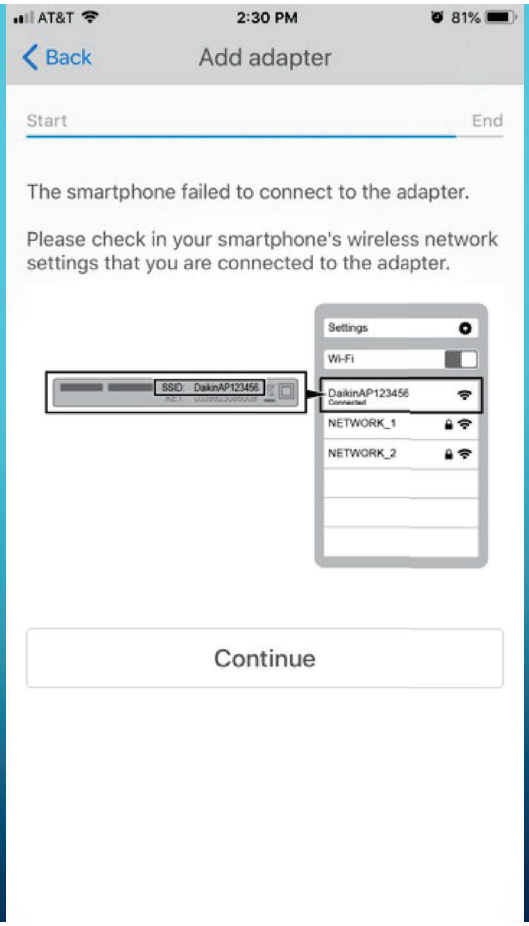
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

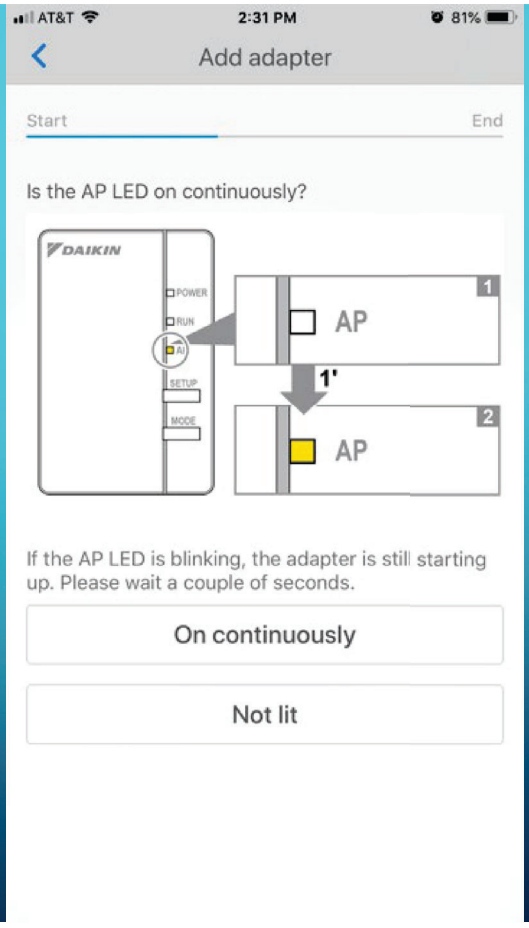
ComfortControl



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

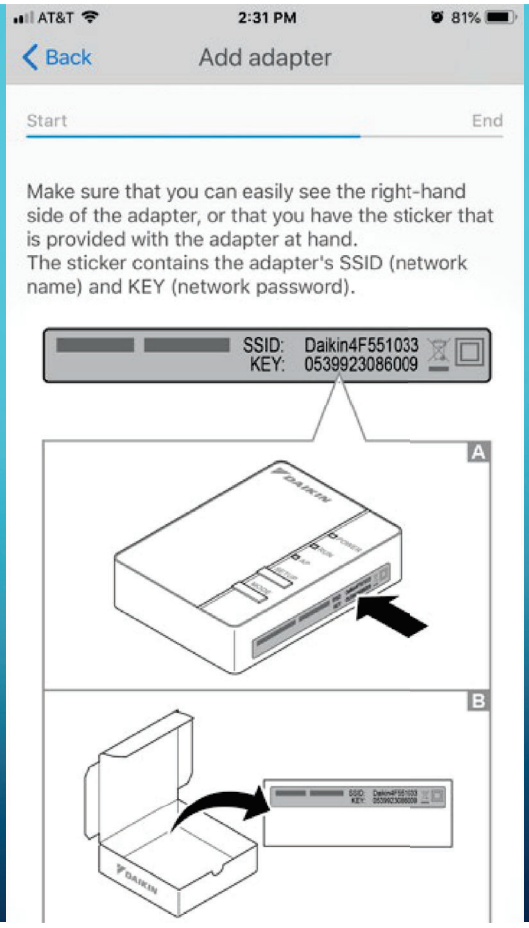


DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

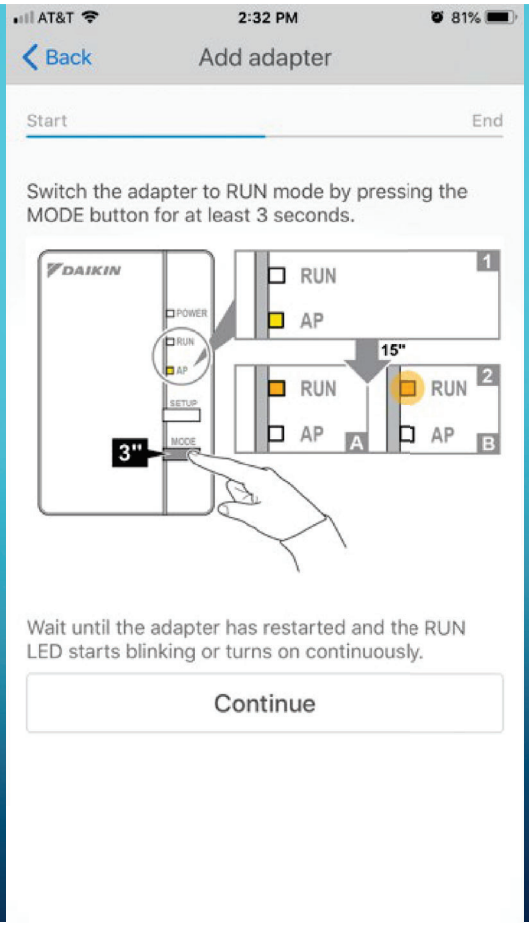
ComfortControl

AIR INTELLIGENCE™



VIRGINIA AIR DISTRIBUTORS, INC.

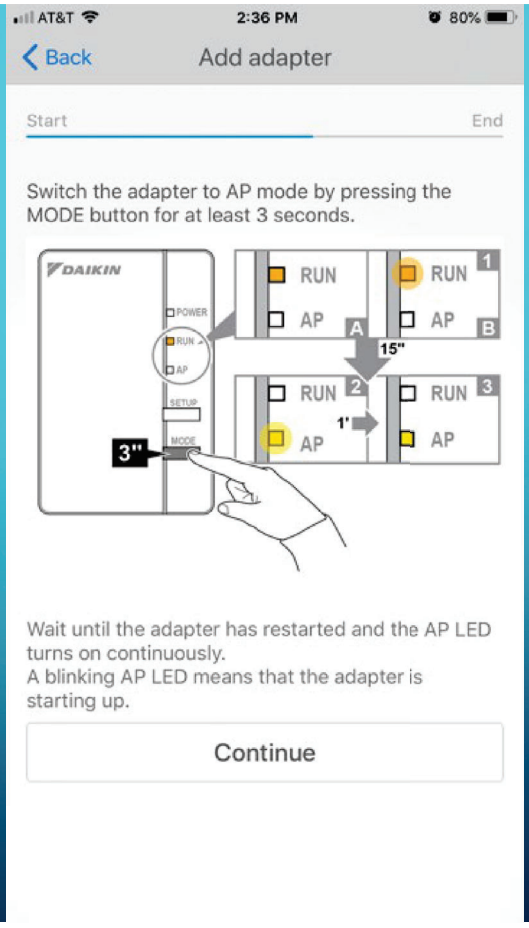
ComfortControl



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl



DAIKIN AIR INTELLIGENCE™

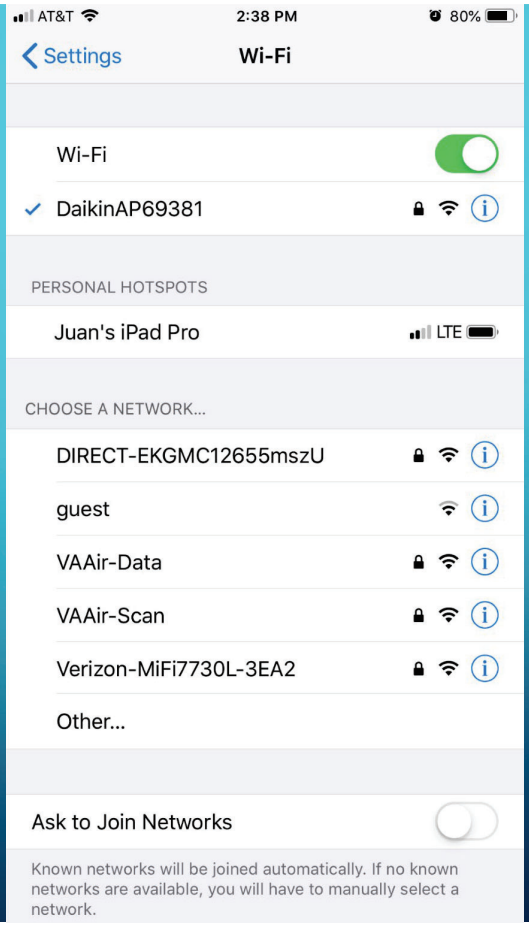
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

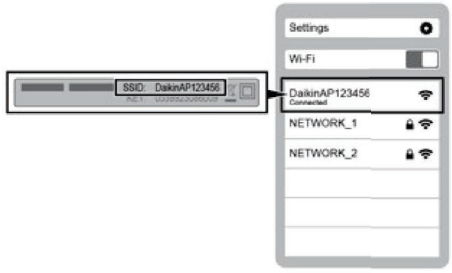
AT&T 2:38 PM 80%

Back Add adapter

Start End

The smartphone failed to connect to the adapter.

Please check in your smartphone's wireless network settings that you are connected to the adapter.

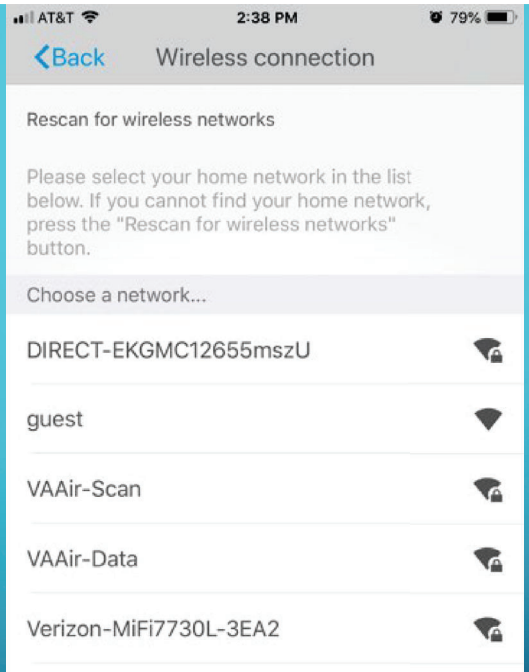


Continue

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

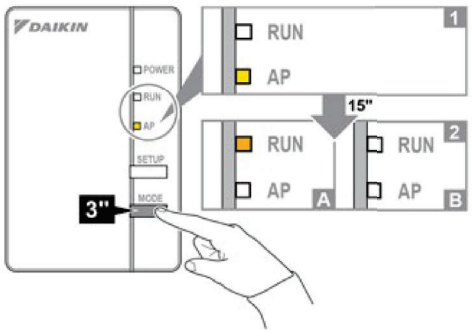
AT&T 2:39 PM 79%

Add adapter

Start End

The adapter will restart and try to connect to your network.

When the adapter is successfully connected, the RUN LED turns on continuously.



If the RUN LED keeps blinking, the adapter failed to connect to the network.

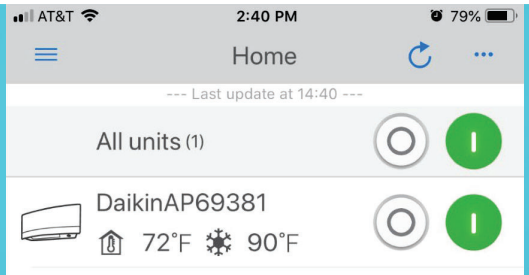
On continuously

Blinking

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

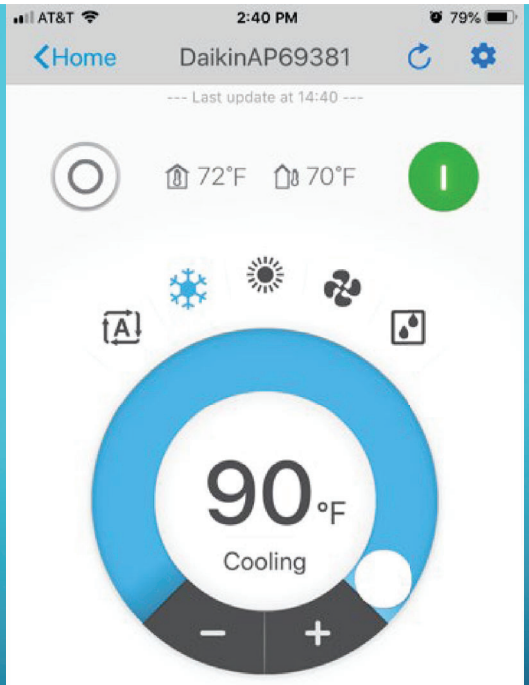


DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

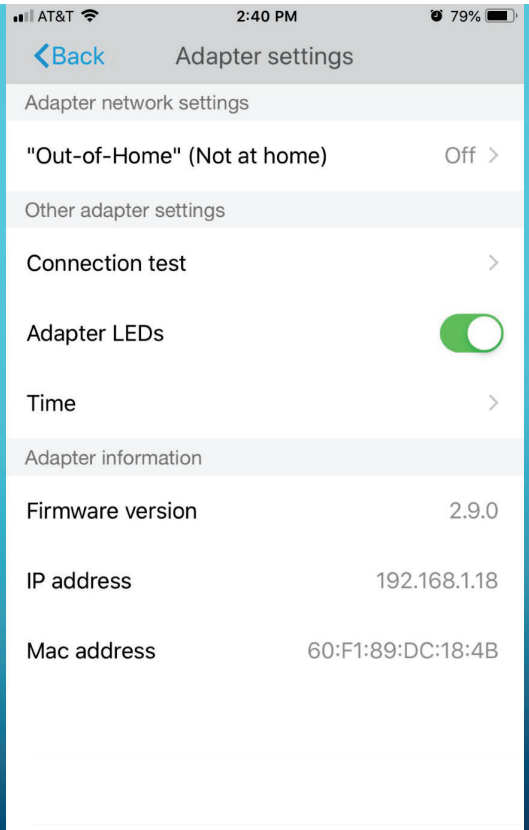
ComfortControl



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

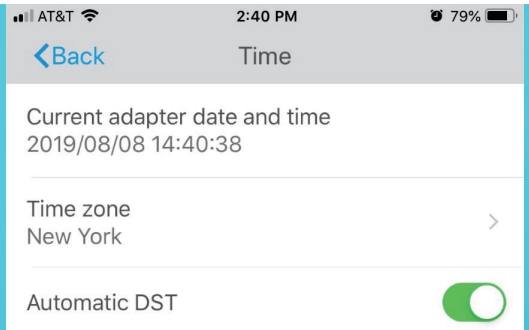


DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

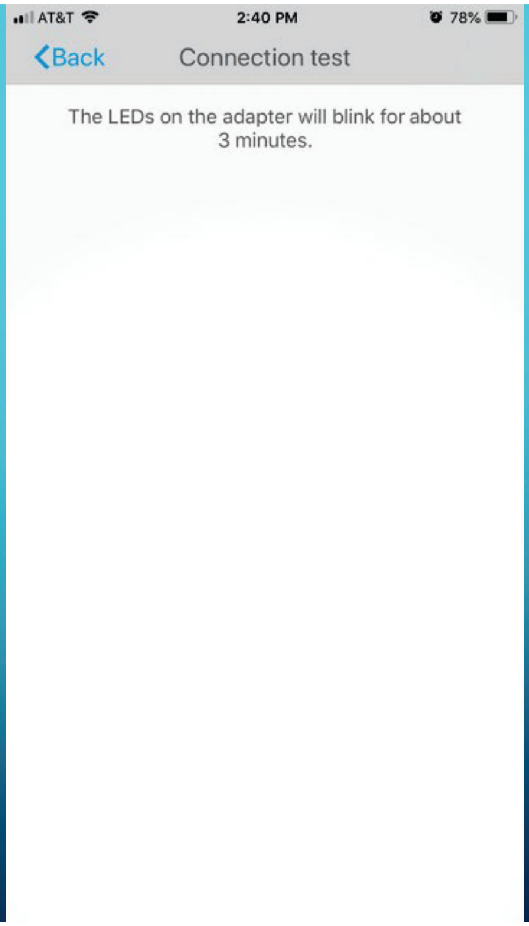
DAIKIN
AIR INTELLIGENCE™



VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl

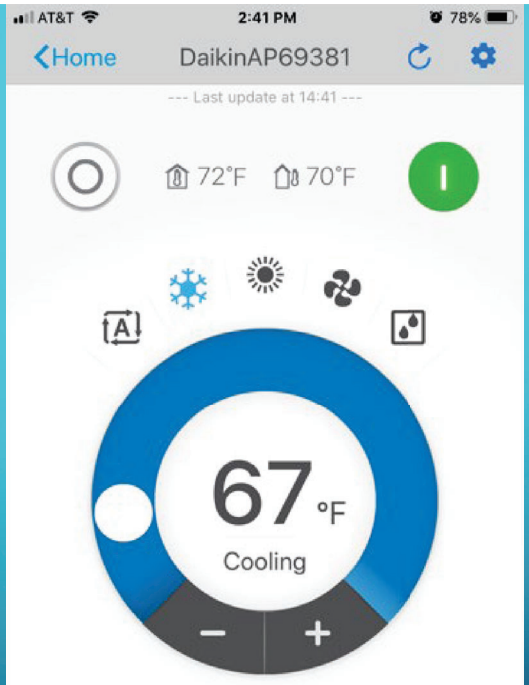
DAIKIN
AIR INTELLIGENCE™



VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

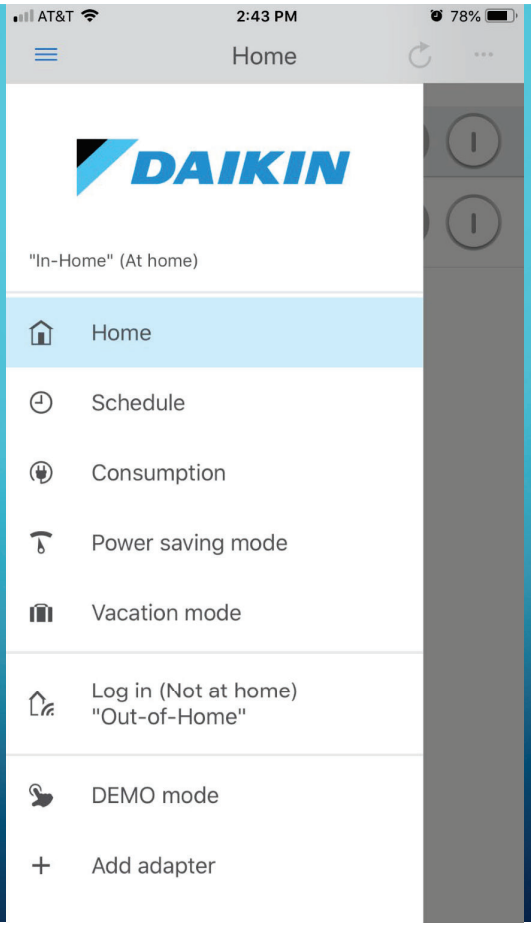
ComfortControl



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

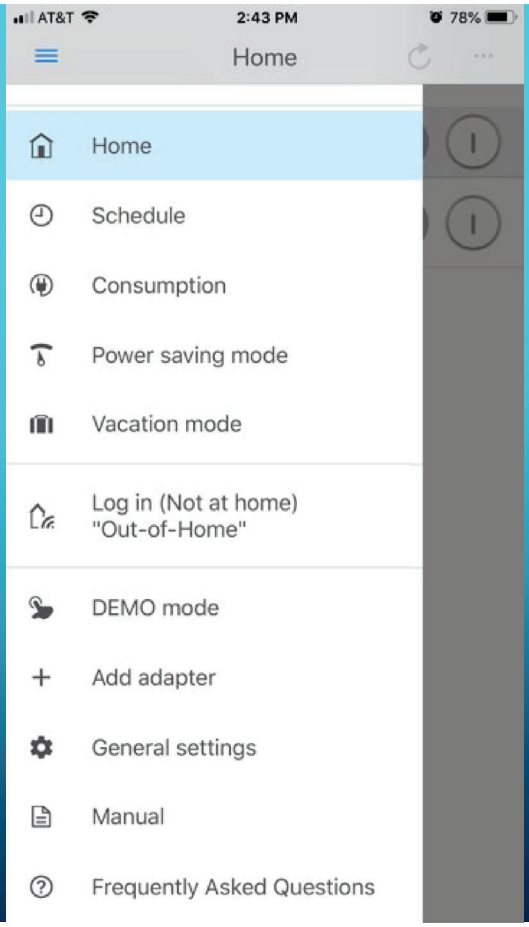
ComfortControl



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

ComfortControl



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

PREVENTATIVE MAINTENANCE

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

MAINTENANCE CHECKLIST: OUTDOOR UNIT

Inspection Items	Inspection Method	Criteria (Benchmarks)
Fan Blades	Visual inspection	Check the rotating/mounting direction of the fan. Check that there is no obstacle in the air passage.
General condition of outdoor unit	Visual inspection	Check for rust, dirt and obstructions
Molex connectors	Visual inspection	Check interconnecting wires and molex plugs for proper connections
Subcooling EEV Inspection	Visual inspection	Remove motor head and check condition
Coil Fins	Visual inspection	Check for bent/damaged fins - use appropriate fin comb
Check Service valves	Visual inspection	Check condition. Check for leaking or missing caps
Check Internal piping	Visual inspection	Check for rub or wear marks on piping
Low voltage communications terminals	Check with screwdriver	Check terminal block connections are tight
External piping	Visual inspection	Look for broken/deteriorated insulation

DO NOT Connect gauges unless you suspect a refrigerant issue!!

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

MAINTENANCE CHECKLIST: INDOOR UNIT

Inspection Items	Inspection Method	Criteria (Benchmarks)
Blower wheel	Visual inspection	Check the mounting/rotating direction of the fan. Check that there is no obstacle in the air passage.
EEV	See supplement on page 12	See supplement on page 12
General condition of indoor unit	Visual inspection	Check for rust, dirt and obstructions
Molex connectors	Visual inspection	Check interconnecting wires and molex plugs for proper connections
Low voltage communications terminals	Check with screwdriver	Check that terminal block connections are tight
Flare nut connections	Verify with torque wrench	See supplement on page 14 for torque specs and procedure
Flare Nut Insulation	Check flare nut insulation	Verify in good condition
Filter Check	Visual inspection	Check dust accumulation or damage of filter
Float Safety on internal lift pump	Operation Inspection	Engage safety to validate operation. Check for free movement of float switch. See supplemental information on page 14.
Condensate drain pan	Visual inspection	Check for rust, debris, or standing water
Condensate pipe check	Operate in cooling mode for 20 minutes minimum	No water leaks
Operating sound	Listen	No abnormal noise
Swing	Check motion with remote controller	Normal Operation
Error Code History	Check using controller	Enter present error code - NA if none

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN DUCTLESS EVAP COIL MAINTENANCE

- Desolv by Rectorseal
- Use non-acid, non-foaming coil cleaners
- JUST Water is most preferred

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

FUNCTIONAL OVERVIEW

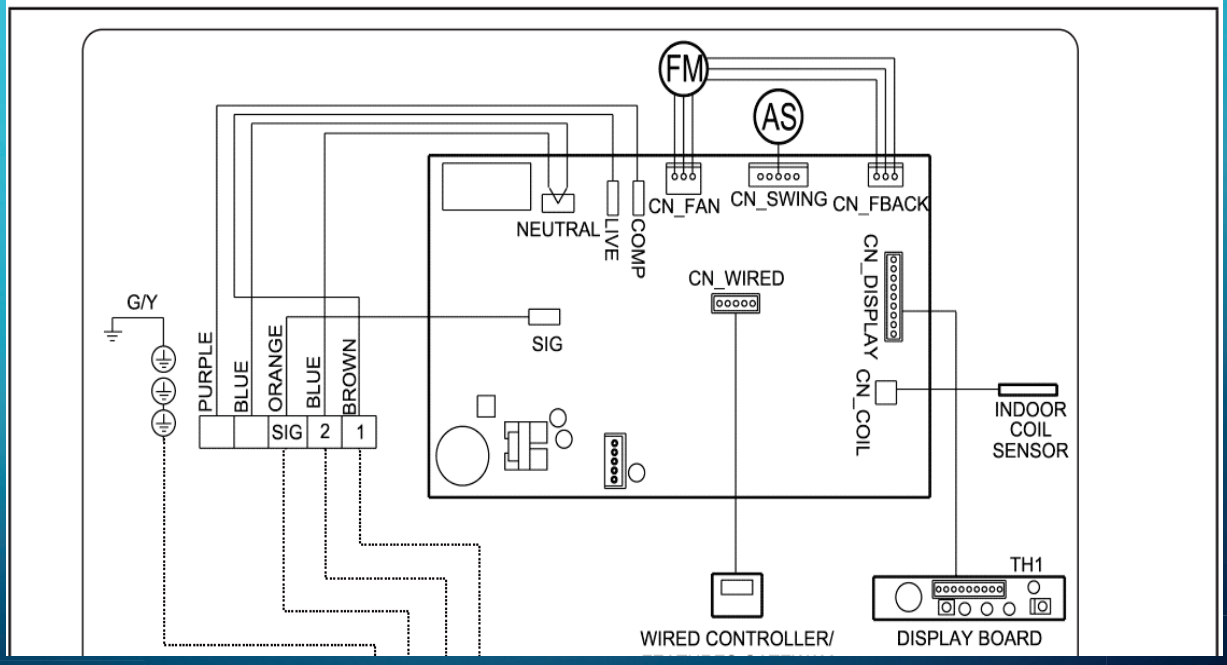
WIRING DIAGRAMS AND REFRIGERANT PIPING

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

17 SERIES FAN MOTOR WIRING

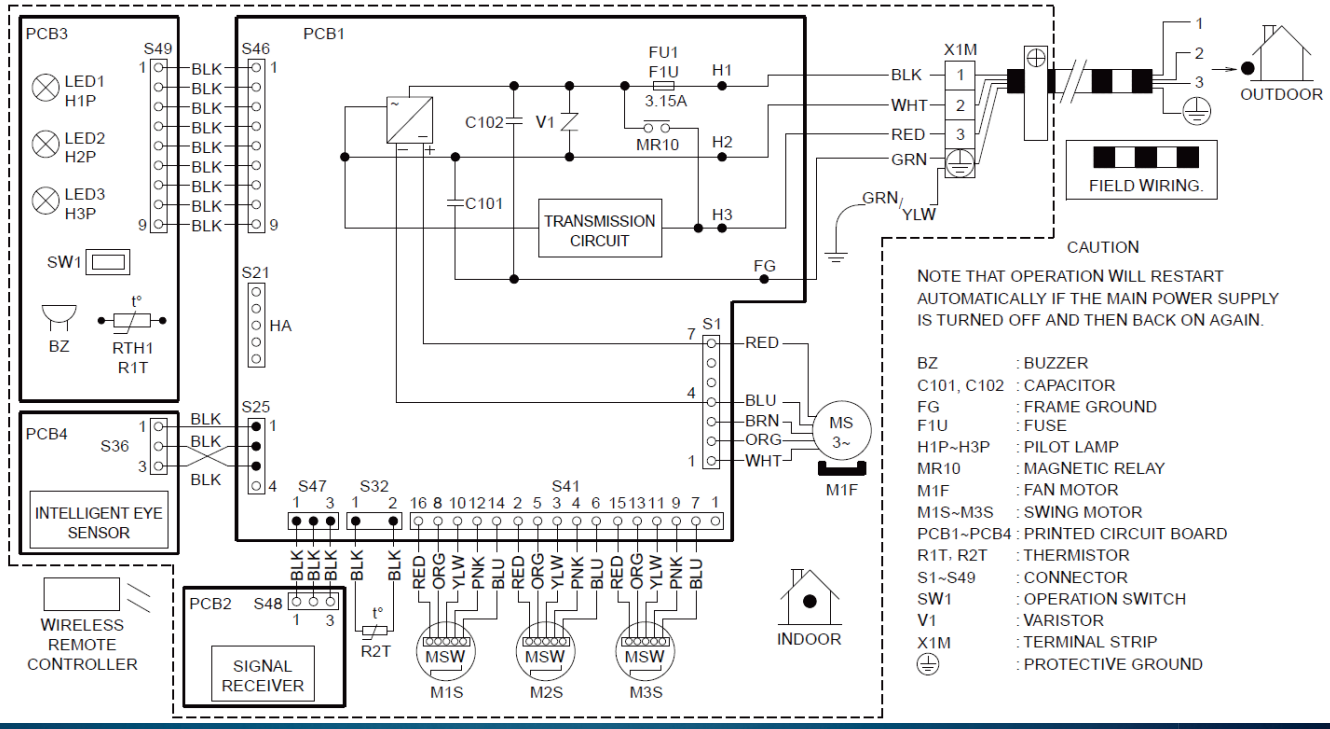
Model: FTXB09/12AX-RXB09/12AX ; FTXN09/12AX-RXN09/12AX



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

FTXS15/18/24/30/36LVJU



CAUTION

NOTE THAT OPERATION WILL RESTART AUTOMATICALLY IF THE MAIN POWER SUPPLY IS TURNED OFF AND THEN BACK ON AGAIN.

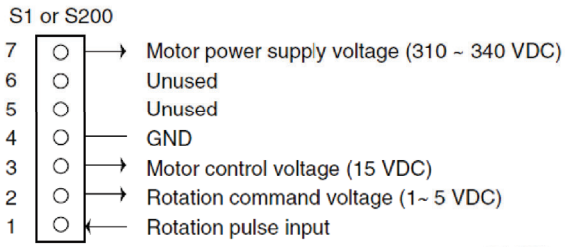
BZ	: BUZZER
C101, C102	: CAPACITOR
FG	: FRAME GROUND
F1U	: FUSE
H1P~H3P	: PILOT LAMP
MR10	: MAGNETIC RELAY
M1F	: FAN MOTOR
M1S~M3S	: SWING MOTOR
PCB1~PCB4	: PRINTED CIRCUIT BOARD
R1T, R2T	: THERMISTOR
S1~S49	: CONNECTOR
SW1	: OPERATION SWITCH
V1	: VARISTOR
X1M	: TERMINAL STRIP
⏚	: PROTECTIVE GROUND

8.2 Indoor Fan Motor Connector Check

Check No.02

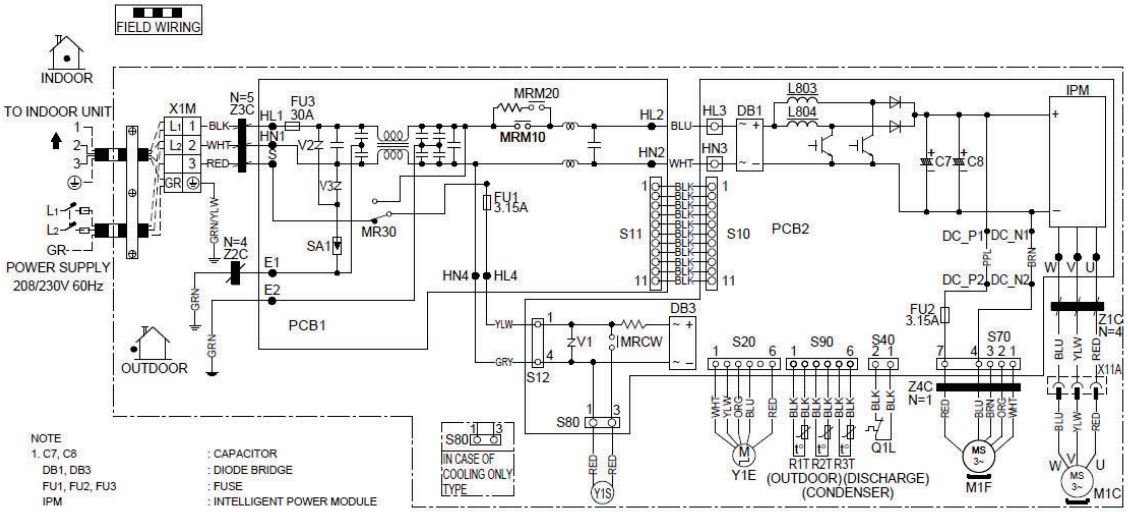
CTXG, CTXS, FTXS, FVXS Series

1. Check the connection of connector.
2. Check motor power supply voltage output (pins 4 - 7).
3. Check motor control voltage (pins 4 - 3).
4. Check rotation command voltage output (pins 4 - 2).
5. Check rotation pulse input (pins 4 - 1).



(R14225)

RXS15/18LVJU



NOTE
1. C7, C8 : CAPACITOR
DB1, DB3 : DIODE BRIDGE
FU1, FU2, FU3 : FUSE
IPM : INTELLIGENT POWER MODULE
L1, L2 : LIVE
L803, L804 : REACTOR
M1C : COMPRESSOR MOTOR
M1F : FAN MOTOR
MRCW, MRM10, MRM20, MR30 : MAGNETIC RELAY
Q1L : OVERLOAD PROTECTOR

PCB1, PCB2 : PRINTED CIRCUIT BOARD
S10, S11, S12, S20
S40, S70, S80, S90
HL3, HN3, X11A : CONNECTOR
R1T, R2T, R3T : THERMISTOR
SA1 : SURGE ABSORBER

V1, V2, V3 : VARISTOR
X1M : TERMINAL STRIP
Y1E : ELECTRONIC EXPANSION VALVE COIL
Y1S : REVERSING SOLENOID VALVE COIL
Z1C, Z2C, Z3C, Z4C : FERRITE CORE
GR : PROTECTIVE GROUND
⏚, ⏚ : GROUND

3D072837

5.8 Rotation Pulse Check on the Outdoor Unit PCB

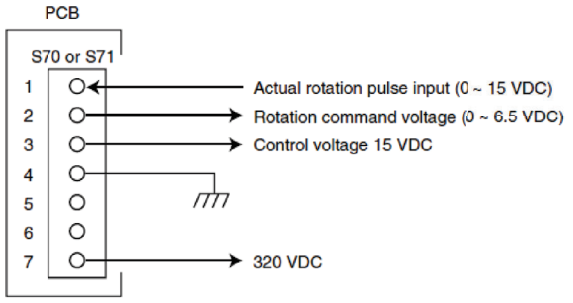
Check No.16

Make sure that the voltage of 320 + 100 V ~ 320 - 50 V is applied.

1. Set operation off and power off. Disconnect the connector S70 or S71.
2. Check that the voltage between the pins 4 - 7 is 320 VDC.
3. Check that the control voltage between the pins 3 - 4 is 15 VDC.
4. Check that the rotation command voltage between the pins 2 - 4 is 0 ~ 6.5 VDC.
5. Keep operation off and power off. Connect the connector S70 or S71.
6. Check whether 4 rotation pulses (0 ~ 15 VDC) are input at the pins 1 - 4 when the fan motor is rotated 1 turn by hand.

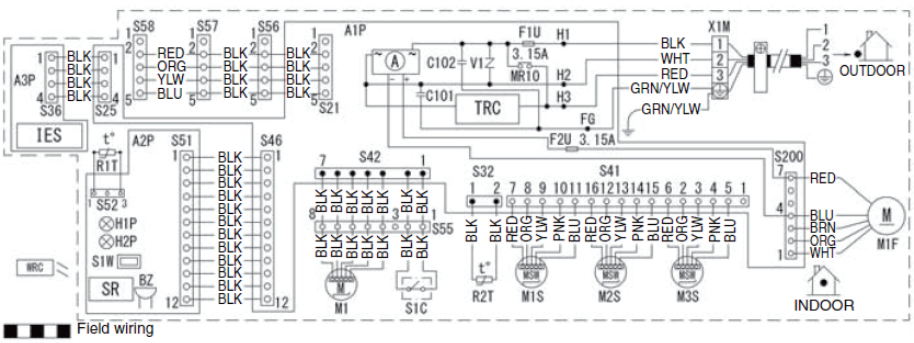
When the fuse is melted, check the outdoor fan motor for proper function.

If NG in step 2 → Defective PCB → Replace the outdoor unit PCB (main PCB).
If NG in step 4 → Defective Hall IC → Replace the outdoor fan motor.
If OK in both steps 2 and 4 → Replace the outdoor unit PCB (main PCB).



(R20507)

FTXR09/12/18TVJUW(S), CTXG09/12/18QVJUW(S)



Wiring diagram

FG	: Frame ground	SR	: Signal receiver
F1U, F2U	: Fuse	⏚	: Ground
H1P, H2P	: Pilot lamp	H1-H3	: Harness
R1T, R2T	: Thermistor	MR10	: Magnetic relay
S25-S200	: Connector	V1	: Varistor
S1W	: Operation switch	C101, C102	: Capacitor
S1C	: Limit switch		
X1M	: Terminal strip		
BZ	: Buzzer		
M1F	: Fan motor		
M1S-M3S	: Swing motor		
M1	: Stepper motor		
A1P-A3P	: Printed circuit board		
TRC	: Transmission circuit		
WRC	: Wireless remote control		
IES	: Intelligent Eye sensor		
Ⓐ	: Rectifier		

NOTE When the main power is turned off and then back on again, operation will resume automatically.

8.1 Thermistor Resistance Check

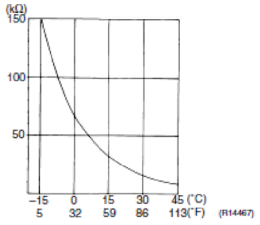
Check No.01

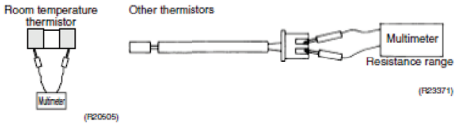
Disconnect the connectors of the thermistors from the PCB, and measure the resistance of each thermistor using a multimeter.

The data is for reference purpose only.

Thermistor temperature		Resistance (kΩ)
°C	°F	
–20	–4	197.8
–15	5	148.2
–10	14	112.1
–5	23	85.60
0	32	65.93
5	41	51.14
10	50	39.99
15	59	31.52
20	68	25.02
25	77	20.00
30	86	16.10
35	95	13.04
40	104	10.62
45	113	8.707
50	122	7.176

(R25°C (77°F) = 20 kΩ, B = 3950 K)

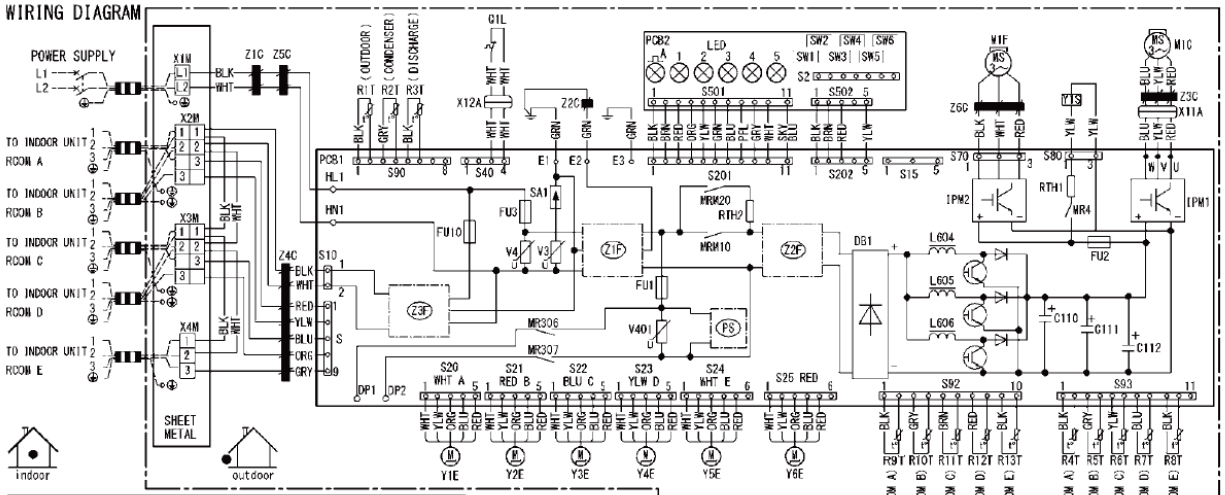




- When the room temperature thermistor is soldered on a PCB, remove the PCB from the control PCB to measure the resistance.
- When the connector of indoor heat exchanger thermistor is soldered on a PCB, remove the thermistor and measure the resistance.

COLORED WIRING DIAGRAM

5MXS48TVJU



C110–C112	CAPACITOR	MRM10, MRM20	MAGNETIC RELAY						
DB1	DIODE BRIDGE	PCB1, PCB2	PRINTED CIRCUIT BOARD						
FU1–FU3, FU10	FUSE	PS	SWITCHING POWER SUPPLY						
IPM1, IPM2	INTELLIGENT POWER MODULE	Q1L	OVERLOAD PROTECTOR						
L604–L606	REACTOR	R1T–R13T	THERMISTOR	X1M–X4M	TERMINAL BLOCK	S, S2–S502	CONNECTOR		FIELD WIRING
LED1–5, LED A	LIGHT-EMITTING DIODE	RTH1, RTH2	RESISTOR	Y1E–Y6E	ELECTRONIC EXPANSION VALVE COIL	X11A, X12A	CONNECTOR		
M1C	COMPRESSOR MOTOR	SA1	SURGE ARRESTOR	Y1S	REVERSING SOLENOID VALVE COIL	DP1, DP2	TERMINAL		
M1F	FAN MOTOR	SW1–SW6	SWITCH	Z1C–Z6C	FERRITE CORE	HL1, HN1	TERMINAL		
MR4, MR305, MR307	MAGNETIC RELAY	V3, V4, V401	VARISTOR	Z1F–Z3F	NOISE FILTER	E1, E2, E3	TERMINAL		

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

8.5 Electronic Expansion Valve Check

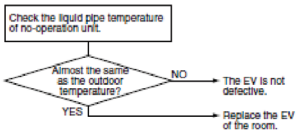
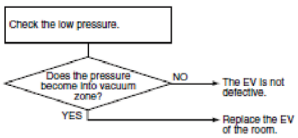
Check No.12

Conduct the following to check the electronic expansion valve (EV).

1. Check if the EV connector is correctly inserted in the PCB. Match the EV unit number and the connector number.
2. Turn the power off and on again, and check if all the EVs generate a latching sound.
3. If any of the EVs does not generate a latching sound in the above step 2, disconnect that connector and check the continuity using a multimeter.
   Check the continuity between the pins 5 - 1, 5 - 2, 5 - 3, 5 - 4. If there is no continuity between the pins, the EV coil is faulty.
4. If no EV generates a latching sound in the above step 2, the outdoor unit PCB is faulty.
5. If the continuity is confirmed in the above step 3, mount a good coil (which generated a latching sound) in the EV unit that did not generate a latching sound, and check if that EV generates a latching sound.
   *If a latching sound is generated, the outdoor unit PCB is faulty.
   *If a latching sound is not generated, the EV unit is faulty.

Note: Please note that the latching sound varies depending on the valve type.

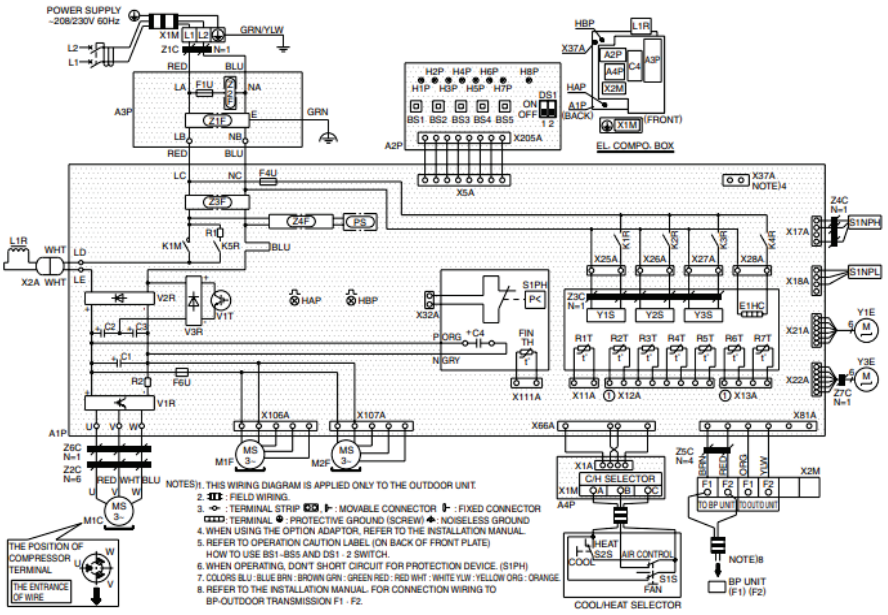
If the system keeps operating with a defective electronic expansion valve, the following problem may occur.

Valve opening position	Possible problem	Check method
Open	Cooling: ■ Flowing noise of refrigerant in the unit which is not in operation ■ Water leakage at the unit which is not in operation ■ Operation half due to anti-icing function Heating: ■ Flowing noise of refrigerant in the unit which is not in operation ■ The unit does not heat the room.	Reset power supply and conduct cooling operation unit by unit.  (R16019)
Close	Cooling: ■ The problem unit does not cool the room. ■ Only the problem unit is in operation, the unit starts pump down. (The low pressure of the unit becomes vacuum.) ■ Abnormal discharge pipe temperature Heating: ■ Refrigerant shortage due to stagnation of liquid refrigerant inside the faulty indoor unit ■ The unit does not heat the room. ■ Abnormal discharge pipe temperature	Reset power supply and conduct cooling operation unit by unit.  (R16020)

COLORE

DAIKIN
AIR INTELLIGENCE™

RMXS48LVJU

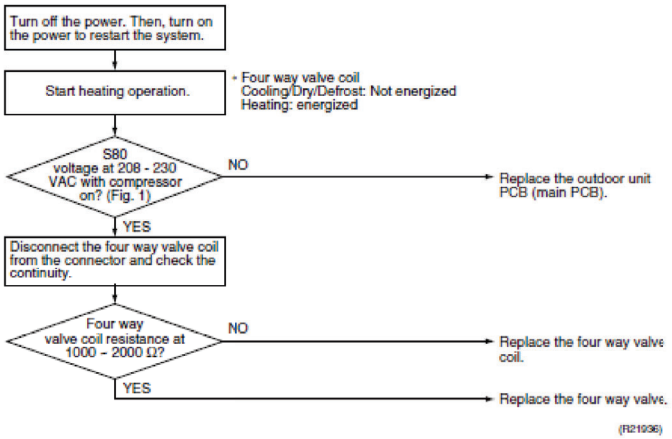


L1-RED	L2-BLU				
A1P	PRINTED CIRCUIT BOARD (MAIN)	K2R	MAGNETIC RELAY (Y2S)	S1PH	PRESSURE SWITCH (HIGH)
A2P	PRINTED CIRCUIT BOARD (SERVICE)	K3R	MAGNETIC RELAY (Y3S)	V1R	POWER MODULE
A3P	PRINTED CIRCUIT BOARD (NOISE FILTER)	K4R	MAGNETIC RELAY (E1HC)	V2R, V3R	DIODE MODULE
A4P	PRINTED CIRCUIT BOARD (C/H SELECTOR)	K5R	MAGNETIC RELAY	V1T	IGBT
BS1~5	PUSH BUTTON SWITCH (MODE, SET, RETURN, TEST, RESET)	L1R	REACTOR	X1M	TERMINAL STRIP (POWER SUPPLY)
C1~4	CAPACITOR	M1C	MOTOR (COMPRESSOR)	X2M	TERMINAL STRIP (CONTROL)
DS1	DIP SWITCH	M1F	MOTOR (FAN) (UPPER)	X1M	TERMINAL STRIP (C/H SELECTOR) (A4P)
E1HC	CRANKCASE HEATER	M2F	MOTOR (FAN) (LOWER)	Y1E	ELECTRONIC EXPANSION VALVE (MAIN)
F1U, F4U	FUSE (T 6.3A/250V)	P2	RESISTOR	Y1S	SOLENOID VALVE (4 WAY VALVE)
F6U	FUSE (T 5.0A/250V)	R1T	THERMISTOR (AIR)	Y2S	SOLENOID VALVE (HOT GAS)
H1P~8P	PILOT LAMP (SERVICE MONITOR-ORANGE)	R2T	THERMISTOR (M1C DISCHARGE)	Y3S	SOLENOID VALVE (U/L CIRCUIT)
	H2P: PREPARE. TEST----------FLICKERING MALFUNCTION DETECTION--LIGHT UP	R3T	THERMISTOR (SUCTION1)	Z1F~4F	NOISE FILTER (FERRITE CORE)
		R4T	THERMISTOR (COIL)		NOISE FILTER
HAP	OPERATION PILOT LAMP (SERVICE MONITOR-GREEN) (A1P)	R5T	THERMISTOR (SUCTION2)	S1S	C/H SELECTOR
HBP	INV. PILOT LAMP (SERVICE MONITOR-GREEN) (A1P)	R6T	THERMISTOR (SUBCOOL)	S2S	SELECTOR SWITCH (FAN/COOL HEAT)
K1M	MAGNETIC CONTACTOR	R7T	THERMISTOR (LIQUID)		SELECTOR SWITCH (COOL/HEAT)
K1R	MAGNETIC RELAY (Y1S)	F.INTH	THERMISTOR (FIN)		CONNECTOR OF OPTION ADAPTOR
		S1NPH	PRESSURE SENSOR (HIGH)	X37A	CONNECTOR
		S1NPL	PRESSURE SENSOR (LOW)	NOTE)4	(OPTION ADAPTOR POWER SUPPLY)

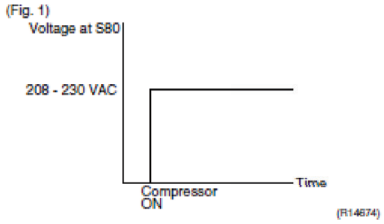
VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

8.6 Four Way Valve Performance Check

Check No.13

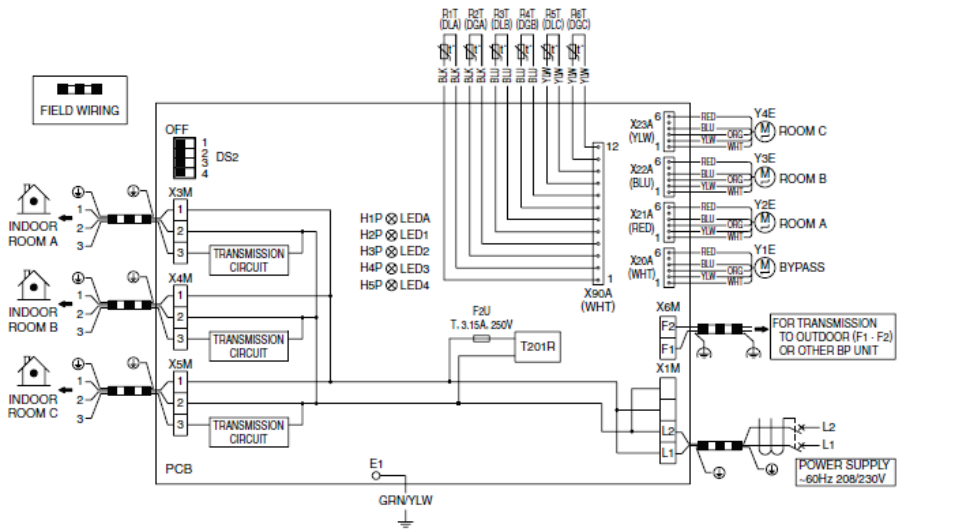


(Fig. 1)



COLORED WIRING DIAGRAM

BPMKS049A3U



X20A~X23A, X90A	: CONNECTOR	H1P~H5P	: PILOT LAMP	T201R	: TRANSFORMER
PCB	: PRINTED CIRCUIT BOARD	R1T~R6T	: THERMISTOR	X1M, X3M~X6M	: TERMINAL STRIP
F2U	: FUSE	DS2	: DIP SWITCH	Y1E~Y4E	: MOTOR OPERATED VALVE COIL

3D079640

DAIKIN AIR INTELLIGENCE™

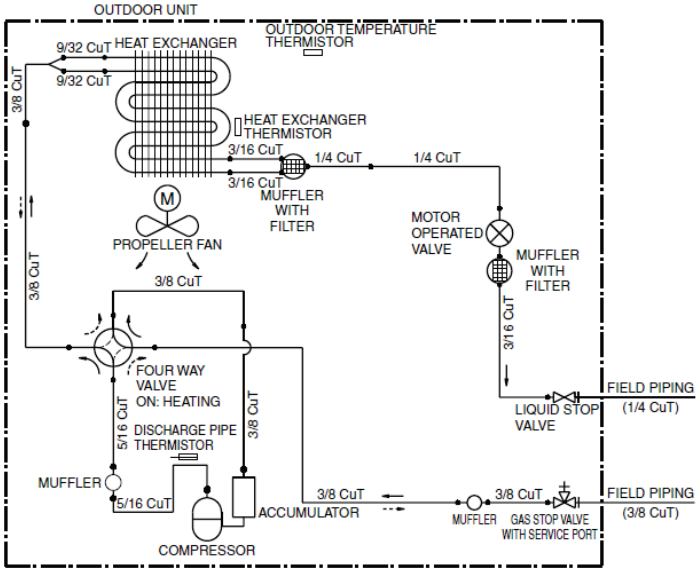
VIRGINIA AIR DISTRIBUTORS, INC.

REFRIGERANT PIPING SCHEMATICS

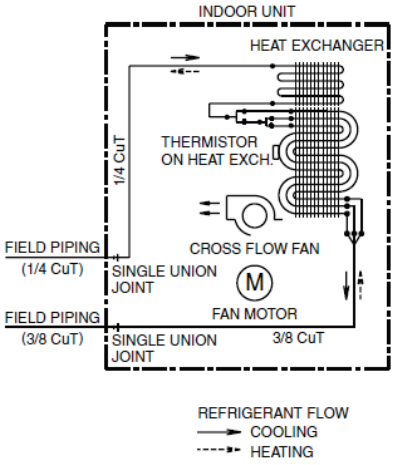
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

RXN12NMVJU, RX12NMVJU



FTXN12NMVJU, FTX09/12NMVJU

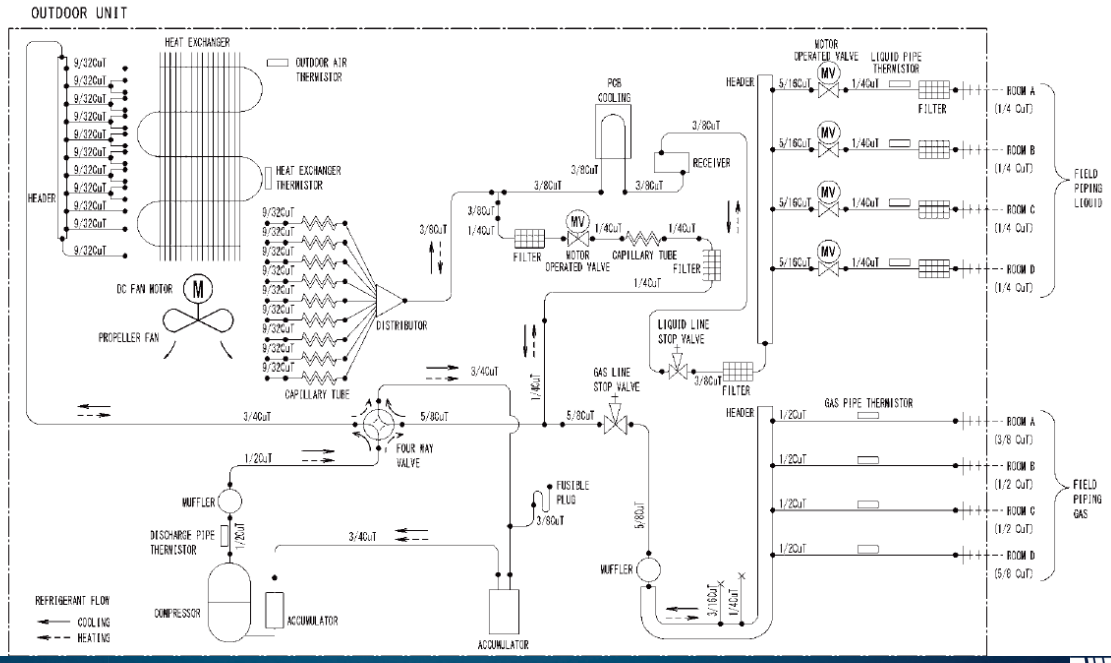


DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

COLORED REFRIGERANT PIPING SCHEMATIC

4MXL36TVJU

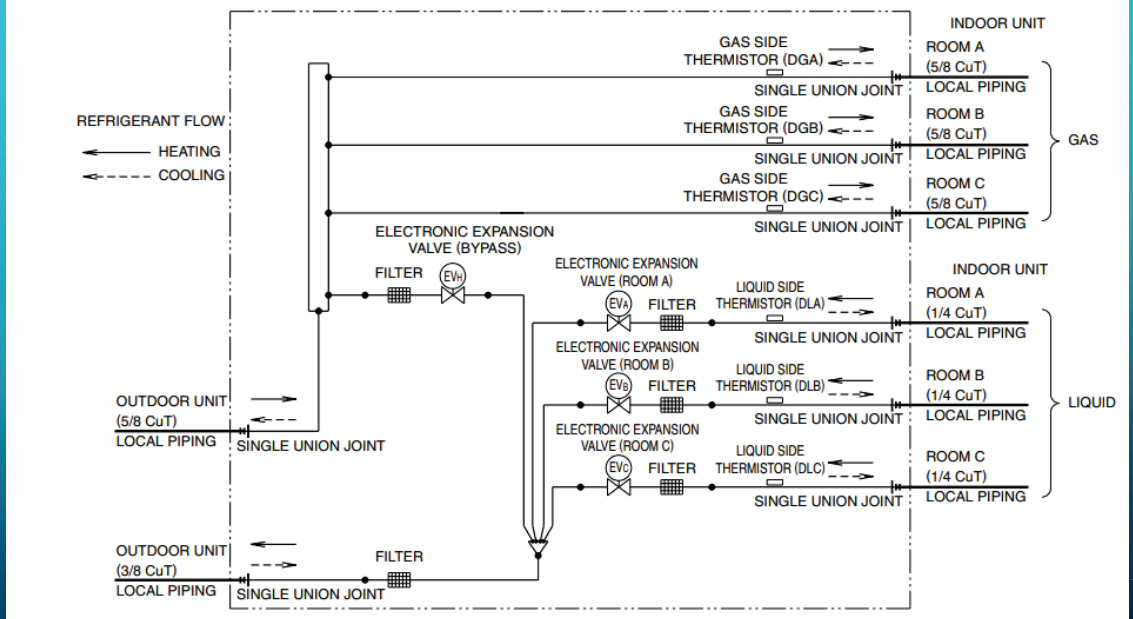


DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

COLORED REFRIGERANT PIPING SCHEMATIC

BPMKS049A3U



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

TROUBLESHOOTING

DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Simple Self-Diagnosis by Malfunction Code

DAIKIN INDUSTRIES, LTD.
After Sales Service Division
(SM-TS2)

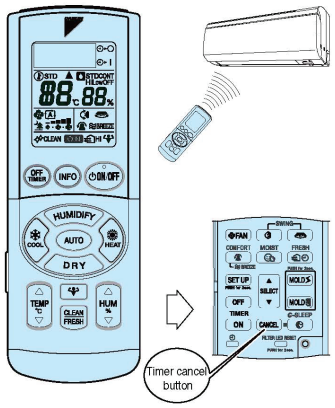
Division	Detail code	0	1	2	3	4	5	6	7	8	9	A	C	E	F	H	J
Indoor Unit	A	External protection device activated	Malfunction of indoor unit PCB		Malfunction of drain level system	Malfunction of freezing protection	High pressure control in heating, freeze-up protection control in cooling	Malfunction of fan motor	Malfunction of swing flap motor	Malfunction of power supply or AC input overcurrent	Malfunction of electronic expansion valve	Heater overheat	Stop due to low water level	Low water level no water supply	Malfunction of a humidifier system	Malfunction of dust collector of air cleaner	Malfunction of capacity setting (Indoor unit PCB)
	C	Malfunction of sensor system (unified)	Failure of transmission (between indoor unit PCB and sub PCB)		Malfunction of drain level sensor	Malfunction of liquid pipe thermistor for heat exchanger	Malfunction of gas pipe thermistor for heat exchanger	Malfunction of fan motor sensor or fan control driver	Front panel driving motor fault	Malfunction of AC input current sensor system	Malfunction of suction air thermistor	Malfunction of discharge air thermistor	Malfunction of humidity sensor system	Malfunction of switch box thermistor	Malfunction of high pressure switch		Malfunction of thermostat sensor in remote controller
Outdoor Unit	E	Protection devices activated (unified)	Detect of outdoor unit PCB	Malfunction of cold room thermistor	Actuation of high pressure switch (HPS)	Actuation of low pressure switch (LPS)	Inverter compressor motor or overheat	STD compressor motor overcurrent/lock	Malfunction of outdoor unit fan motor system	Overcurrent of inverter compressor	Malfunction of electronic expansion valve coil	Malfunction of four way valve or cool/heat switching	Malfunction of entering water temperature	Malfunction of drain water level	Malfunction of thermal storage unit	Malfunction of cooling water pump	Actuation of option protection device
	F				Malfunction of discharge pipe temperature	Malfunction of suction pipe thermistor		Abnormal high pressure or refrigerant overcharged				Abnormal high pressure actuation of HPS	Abnormal low pressure	Abnormal oil pressure	Abnormal oil level or shortage of oil	Abnormal high temperature of refrigerant oil	Abnormal exhaust temperature of engine
	H	Malfunction of sensor system of compressor	Malfunction of room temperature sensor or humidifier unit damper	Malfunction of power supply sensor	Malfunction of high pressure switch (HPS)	Malfunction of low pressure switch (LPS)	Malfunction of compressor motor overload thermistor	Malfunction of position detection sensor	Malfunction of outdoor fan motor signal	Malfunction of compressor input (CT) system	Malfunction of outdoor air thermistor	Malfunction of discharge air thermistor	Malfunction of (hot) water temperature thermistor	Malfunction of drain water level sensor	Alarm in thermal storage unit or storage controller	High room temperature alarm	Malfunction of thermal storage tank water level
	J	Miswiring of thermistor	Malfunction of pressure sensor	Malfunction of current sensor of compressor	Malfunction of discharge pipe thermistor	Malfunction of low pressure equivalent saturated temperature sensor system	Malfunction of suction pipe thermistor	Malfunction of heat exchanger thermistor	Malfunction of thermistor (Refrigerant circuit)	Malfunction of thermistor (Refrigerant circuit)	Malfunction of thermistor (Refrigerant circuit)	Malfunction of high pressure sensor	Malfunction of low pressure sensor	Malfunction of oil pressure sensor or sub-tank thermistor	Malfunction of oil level sensor or heating heat exchanger thermistor	Malfunction of oil temperature thermistor	Malfunction of engine room temp. sensor or exhaust temp.
	L	Malfunction of inverter system	Malfunction of inverter PCB		Electrical box temperature rise	Malfunction of inverter radiating fin temperature rise	Inverter instantaneous overcurrent (DC output)	Inverter instantaneous overcurrent (AC output)	Total input overcurrent	Malfunction of overcurrent inverter compressor	Malfunction of inverter compressor startup error (Stall prevention)	Malfunction of power transistor	Malfunction of transmission between control and inverter PCB	Malfunction of igniter system	Engine startup error	Malfunction of generator converter	Engine stop
	P	Shortage of refrigerant amount (thermal storage unit)	Power voltage imbalance or inverter PCB	Automatic refrigerant charge operation stop	Malfunction of thermistor in switch box	Malfunction of radiating fin temperature sensor	Malfunction of DC current sensor	Malfunction of AC or DC output current sensor	Malfunction of total input current sensor	Heat exchanger freezing protection during automatic refrigerant charging	Automatic refrigerant charge operation completed	Refrigerant cylinder during automatic refrigerant charging	Refrigerant cylinder during automatic refrigerant charging	Automatic refrigerant charge operation nearly completed	Malfunction of starter actuation	Refrigerant cylinder during automatic refrigerant charging	Improper combination between inverter and fan driver
System	U	Shortage of refrigerant	Reverse phase, open phase	Malfunction of power supply or instantaneous power failure	Check operation not executed or transmission error	Malfunction of transmission between indoor and outdoor unit	Malfunction of transmission between indoor unit and remote controller	Malfunction of transmission between indoor units	Malfunction of transmission between outdoor units or outdoor storage unit	Malfunction of transmission between remote controllers	Malfunction of transmission (other system)	Improper combination of indoor and outdoor units	Malfunction of setting of centralized controller address	Malfunction of transmission between indoor unit and centralized controller	Wiring and piping mismatch	Malfunction of system	Malfunction of transmission (accessory device)
	M		Malfunction of centralized remote controller PCB							Malfunction of transmission between optional controllers for centralized control		Improper combination of optional controllers for centralized control	Address duplication, improper setting				
Others	6	External protection device activated (HRV)	Malfunction of PCB	Ozone density abnormal	Contaminated sensor error	Malfunction of thermistor for indoor air (HRV)	Malfunction of thermistor for outdoor air (HRV)	Supply air passage closed	Exhaust air passage closed	Malfunction of dust collection unit (HRV)		Malfunction of damper system (HRV)	Replace the humidity element	Replace the deodorising catalyst	Simplified remote controller malfunction (HRV)	Door switch open (HRV)	Replace the high efficient filter
	7	System No. 2 Compressor overheat	System No. 2 Compressor overcurrent	System No. 2 Fan motor overcurrent	System No. 2 Actuation of high pressure switch (HPS)	System No. 2 Actuation of low pressure switch (LPS)	System No. 2 Malfunction of low pressure sensor	System No. 2 Malfunction of high pressure sensor	System No. 1 Malfunction of fan inter lock	System No. 2 Malfunction of fan inter lock		System No. 2 Malfunction of compressor current sensor	Malfunction of pump inter lock				
	8	Malfunction of entering water temperature thermistor	Malfunction of leaving water temperature thermistor or drain pipe heater	System No. 1 Malfunction of refrigerant thermistor	System No. 2 Malfunction of refrigerant thermistor	System No. 1 Malfunction of heat exchanger thermistor	System No. 2 Malfunction of heat exchanger thermistor	System No. 1 Malfunction of discharge pipe thermistor		System No. 2 Malfunction of discharge pipe temperature	Malfunction of brazed-plate heat exchanger freezing	Malfunction of dehumidification or leaving water temperature thermistor		System No. 1 Malfunction of suction pipe thermistor 1 for heating	System No. 1 Malfunction of suction pipe thermistor 2 for heating	Abnormal hot water high temperature	
	9	Abnormal chilled water quantity or abnormal AXP	System No. 2 Malfunction of electronic expansion valve	System No. 2 Malfunction of suction pipe thermistor		Malfunction of transmission (between heat reclaim ventilation unit and fan unit)	System No. 1 Malfunction of inverter system	System No. 2 Malfunction of inverter system	Malfunction of thermal storage unit	Malfunction of thermal storage brine pump	Malfunction of thermal storage brine tank			System No. 2 Malfunction of suction pipe thermistor 1 for heating	System No. 2 Malfunction of suction pipe thermistor 2 for heating		

Self-Diagnosis by Remote Controller (Residential Air-conditioner)

In case of ARC447A

[Check Method]

With the wireless remote controller supplied with the unit, or sold separately, malfunction codes by failure diagnosis can be confirmed. (Press timer cancel button down for 5 seconds continuously.)



1. Hold the timer cancel button down for 5 seconds, with the remote controller set toward the indoor unit.
2. The temperature display on the remote controller changes to the error code display and a long beep notifies this indication change.

Note:
To cancel indication of malfunction code, hold the timer cancel button down for 5 seconds.
The code display also cancels itself if the button is not pressed for 1 minute.

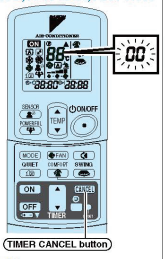
In case of ARC455A, ARC452A, ARC433B, ARC423A, ARC417A

[Check Method 1]

1. When the timer cancel button is held down for 5 seconds, a "00" indication flashes on the temperature display section.

2. Press the timer cancel button repeatedly until a continuous beep is produced.

■ The code indication changes in the sequence shown below, and notifies with a long beep.



<In case of ARC433B67, 68, 69, 76>

No.	Code	No.	Code	No.	Code
1	00	12	E9	23	H0
2	U4	13	H8	24	E1
3	F3	14	J3	25	P4
4	E6	15	R3	26	L3
5	L5	16	R1	27	L4
6	R6	17	E4	28	H6
7	E5	18	L5	29	H7
8	F6	19	H9	30	U2
9	L9	20	J6	31	U4
10	U0	21	U8	32	E8
11	E7	22	R5	33	R4

Note:
1. A short beep and two consecutive beeps indicate non-corresponding codes.
2. To cancel the code display, hold the timer cancel button down for 5 seconds. The code display also cancels itself if the button is not pressed for 1 minute.

[Check Method 2]

1. Press the 3 buttons (TEMP▲, TEMP▼, MODE) simultaneously to enter the diagnosis mode.

The figure of the ten's place blinks.
★ Try again from the start when the figure does not blink.

2. Press TEMP▲or▼button and change the figure until you hear the sound of "beep" or "pi pi".

3. Diagnose by the sound.
★ "pi" : The figure of the ten's place does not accord with the malfunction code.
★ "pi pi" : The figure of the ten's place accords with the error code but the one's not.
★ "beep" : The both figures of the ten's and one's place accord with the malfunction code.

4. Press the MODE button.

The figure of the one's place blinks.

5. Press the TEMP button.
Press TEMP▲or▼button and change the figure until you hear the sound of "beep".

6. Diagnose by the sound.
★ "pi" : The figure of the ten's place does not accord with the malfunction code.
★ "pi pi" : The figure of the ten's place accords with the error code but the one's not.
★ "beep" : The both figures of the ten's and one's place accord with the error code.

7. Determine the malfunction code.
The digits indicated when you hear the "beep" sound are error code.

8. Press the MODE button to exit from the diagnosis mode.

The display "7-" means the trial operation mode.

9. Press the ON/OFF button twice to return to the normal mode.

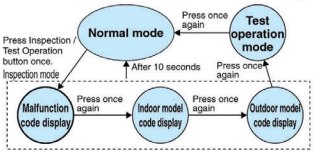
Note:
When the remote controller is left untouched for 60 seconds, it returns to the normal mode.

Self-Diagnosis by Remote Controller (SkyAir, VRV)

<Wired Remote Controller>

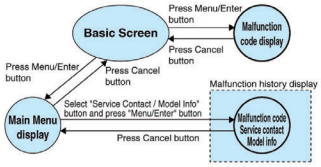
In case of BRC1C62

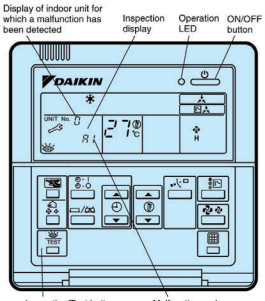
1. If operation stops due to malfunction, the remote controller's operation LED blinks, and malfunction code is displayed.
2. Even if stop operation is carried out, malfunction contents are displayed when the inspection mode is entered.
   * While in check mode, pressing and holding the ON/OFF button for a period of four seconds or more will clear the malfunction history.
   (The malfunction code will blink, and the operation mode will switch from check mode to normal mode.)



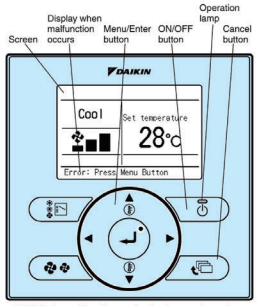
In case of BRC1E61

1. If operation stops due to malfunction, the remote controller's operation indicator blinks. The massage "Error: Press Menu Button" will appear at the bottom of the screen.
2. Press "Menu/Enter" button, malfunction code will be displayed.
   * Press "Menu/Enter" button, malfunction history is displayed in "Main Menu" mode.





* Location of buttons is depend on model type.



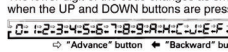
* While in malfunction code display mode on the left, pressing "ON/OFF" button for a period of four seconds or more will clear the malfunction history.

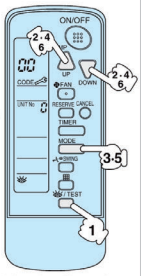
<Wireless Remote Controller>

◆ If equipment stops due to a malfunction, the operation indicating LED on the light reception section flashes.
◆ The malfunction code can be determined by following the procedure described below.

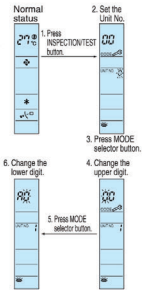
1. Press the INSPECTION/TEST button to select "Inspection."
   The equipment enters the inspection mode. The "Unit" indication lights and the Unit No. display shows flashing "0" indication.
2. Set the Unit No.
   Press the UP or DOWN button and change the Unit No. display until the buzzer (*1) is generated from the indoor unit.
   *1 Number of beeps
   3 short beeps : Conduct all of the following operations.
   1 short beep : Conduct steps 3 and 4.
   Continue the operation in step 4 until a buzzer remains ON. The continuous buzzer indicates that the malfunction code is confirmed.
   Continuous beep : No abnormality.
3. Press the MODE selector button.
   The left "0" (upper digit) indication of the malfunction code flashes.
4. Malfunction code upper digit diagnosis
   Press the UP or DOWN button and change the malfunction code upper digit until the malfunction code matching buzzer (*2) is generated.
   ■ The upper digit of the code changes as shown below when the UP and DOWN buttons are pressed.

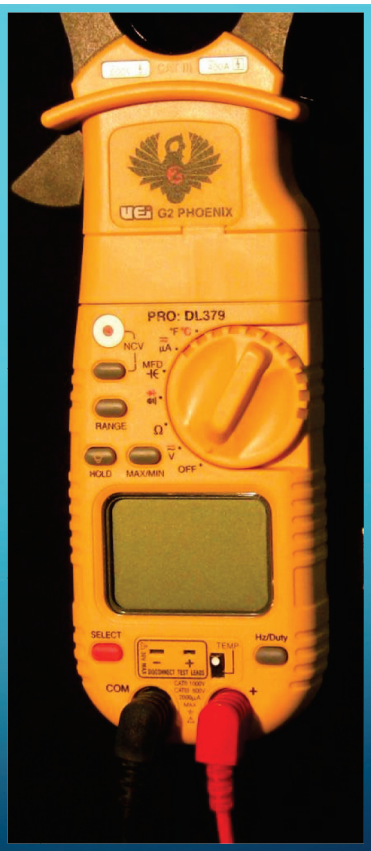
   *2 Number of beeps
   Continuous beep : Both upper and lower digits matched. (Malfunction code confirmed)
   2 short beeps : Upper digit matched.
   1 short beep : Lower digit matched.
5. Press the MODE selector button.
   The right "0" (lower digit) indication of the malfunction code flashes.
6. Malfunction code lower digit diagnosis
   Press the UP or DOWN button and change the malfunction code lower digit until the continuous malfunction code matching buzzer (*2) is generated.
   ■ The lower digit of the code changes as shown below when the UP and DOWN buttons are pressed.





* Location of buttons is depend on model type.





Meters need to Read

- Volts A/C – 500
- Volts D/C – 600
- Ohms- 10 Mega-ohms.
- Diode Check

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

SYSTEM FAULT INDICATION

Multi Split 2/3/4MXS Diagnostic by Outdoor Unit PCB

1. The indications in the parenthesis () in the remote controller display column are displayed only system-downs occurs.
2. When a sensor error occurs, check the remote controller display to determine which sensor is malfunctioning.

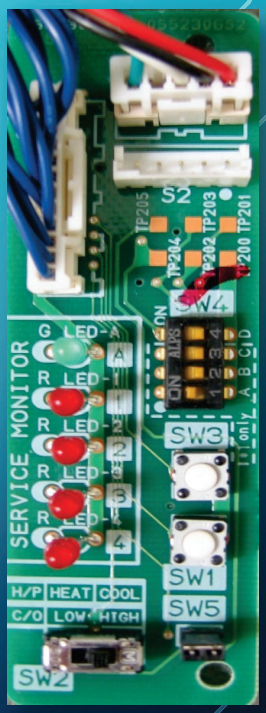
   If the remote controller does not indicate the error type, conduct the following operation. * Turn the power switch off and back on again.
3. If the same LED indication appears again immediately after the power is turned on, the fault is the thermistor. * If the above condition does not result, the fault is the CT.
4. The indoor unit error indication may take the precedence in the remote controller display

Outdoor Unit LED Indication					Indication on the remote controller	Description of The Fault
Green	Red					
A	1	2	3	4		
☼	●	●	●	●	00	Outdoor unit in normal condition (Conduct a diagnosis of the indoor unit.)
					UR	Unspecified voltage (between indoor and outdoor units)
					UH	Anti-icing function in other rooms
◑	●	●	☼	☼	(U0)	Insufficient gas
◑	☼	●	☼	●	(E5)	OL activation (compressor overload)
◑	●	☼	☼	●	(E6)	Compressor lock
◑	☼	●	☼	●	F3	Discharge pipe temperature control
◑	●	●	●	☼	L4	Radiation fin temperature rise (Protection of driver overheating)
◑	☼	☼	●	●	H8	CT or related abnormality
☼	●	●	●	◑	H6	Position sensor abnormality
					H9	Outdoor air thermistor or related abnormality
					J3	Discharge pipe thermistor or related abnormality
					J6	Heat exchanger thermistor or related abnormality
					J8	Liquid pipe thermistor or related abnormality
					J9	Gas pipe thermistor or related abnormality
					P4	Radiation fin thermistor or related abnormality
◑	●	●	☼	●	L5	Output over current detection
◑	●	☼	●	☼	E8	Input over current detection
◑	☼	●	☼	☼	A5	Freeze-up protection control
◑	☼	☼	☼	☼	E7	DC fan lock
◑	☼	●	●	●	EA	Four way valve abnormality
◑	☼	☼	●	☼	L3	Electrical box temperature rise
◑	☼	●	●	☼	U2	Low-voltage detection

☼: ON, ●: OFF, ◑: Blinks

Green: Flashes when in normal condition

Red: OFF in normal condition



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

COMMON ERRORS: U4 FAULT CODE

How would I handle U4:

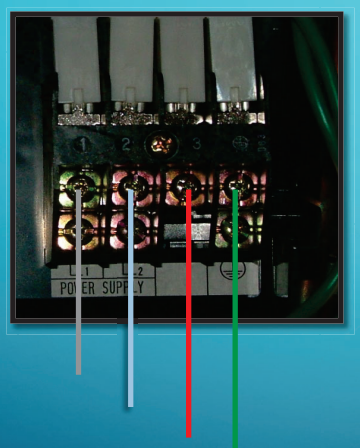
1) Proper power supply to outdoor unit(187 to 253VAC) matching voltage at 1 and 2
2) NO Pulsing DC circuit between indoor and outdoor units (5 to 50 VDC at legs 2 and 3 on outdoor (reading of steady voltage)
3) All wires off 1,2 and 3 at outdoor unit
4) Set meter to continuity and test 1 & 3. Look for light on board. If light shows, proceed to step 5. No light? Bad board. Need to isolate parts of outdoor unit, test fan motor, compressor & LEV
5) Between 2 and 3 terminals do you have 50ish vdc? if yes outdoor seems good
6) Add wires to outdoor take wires off indoor see if same vdc on wires as outdoor
7) If yes add wires and remove the fan motor indoors see if corrects? If yes fan motor caused issue.

DAIKIN AIR INTELLIGENCE™

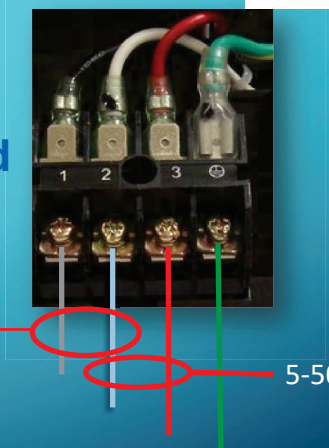
VIRGINIA AIR DISTRIBUTORS, INC.

DUCTLESS WIRING: OUTDOOR POWERS INDOOR

PWEZ14450 50ft
PWEZ144250 250ft



14/4 Non-Shielded Stranded Wire



240VAC

5-50 VDC

1
2
3
G

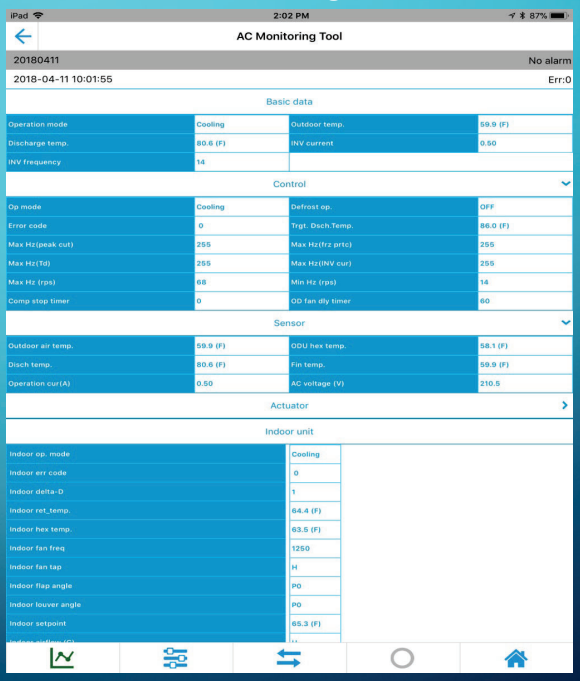
DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

BLUETOOTH DAIKIN D - CHECKER

Bluetooth

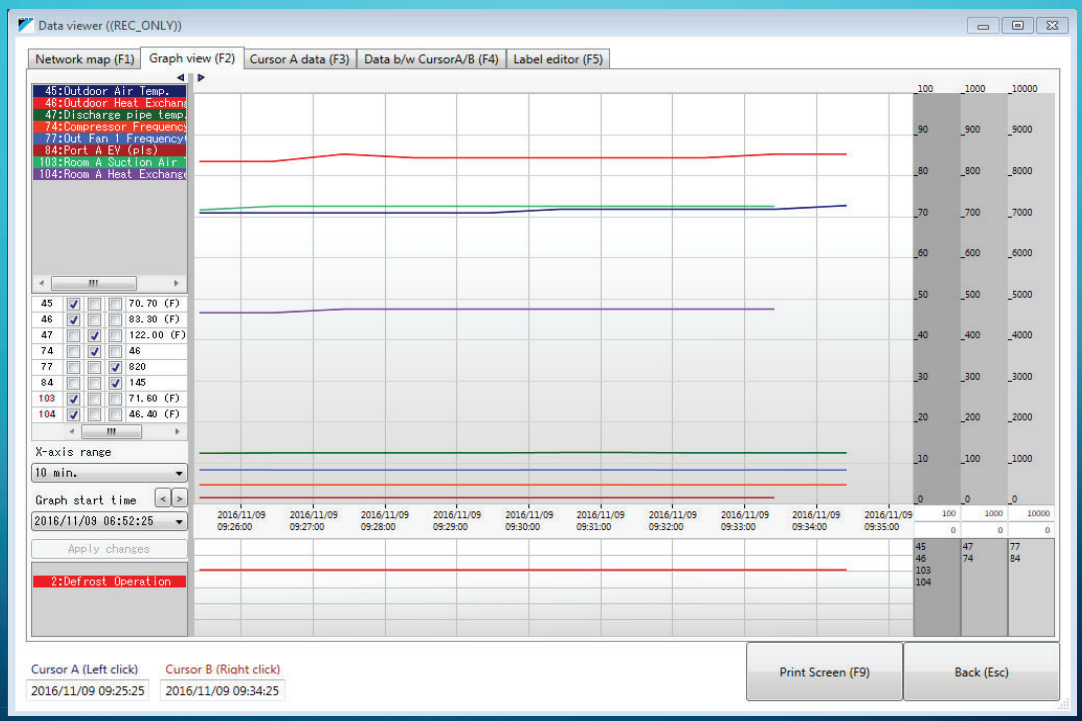
Daikin Monitoring Tool APP



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

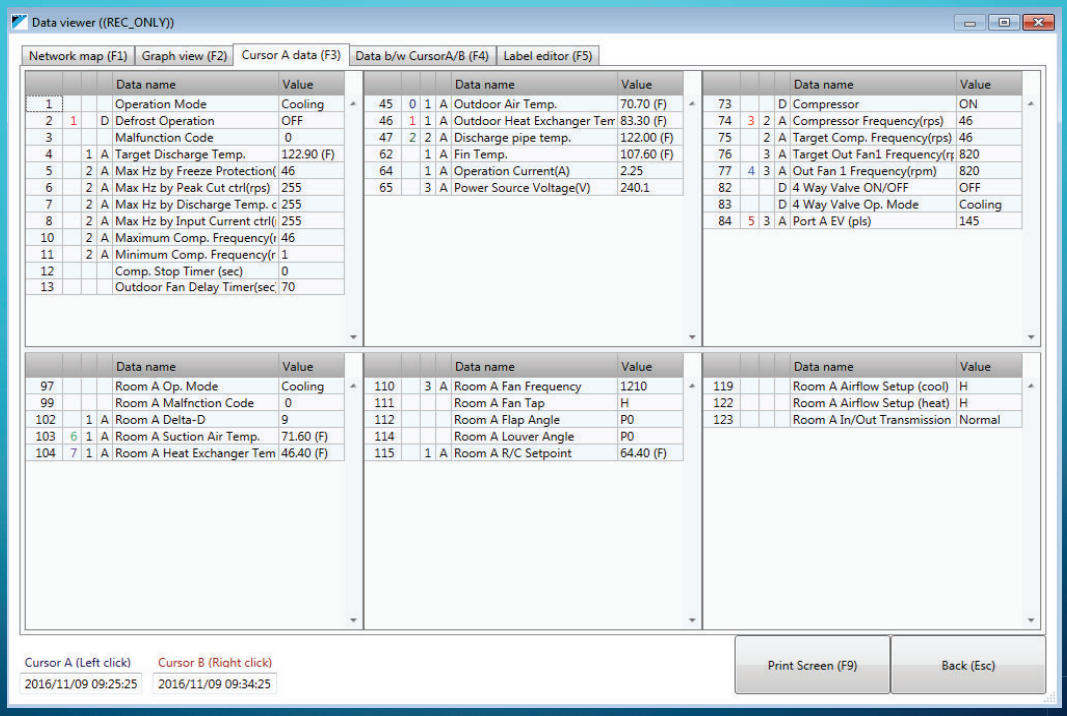
D-Checker



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

D-Checker



DAIKIN AIR INTELLIGENCE™

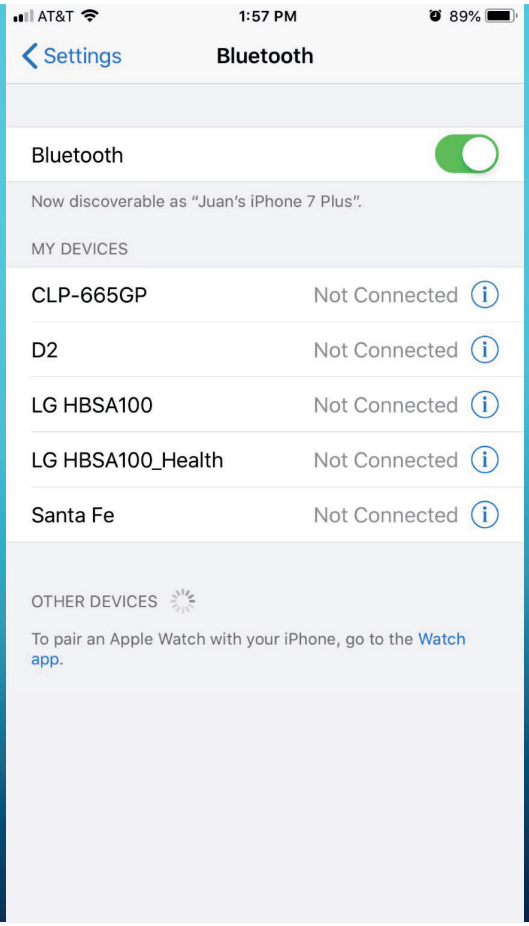
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool

DAIKIN AIR INTELLIGENCE™



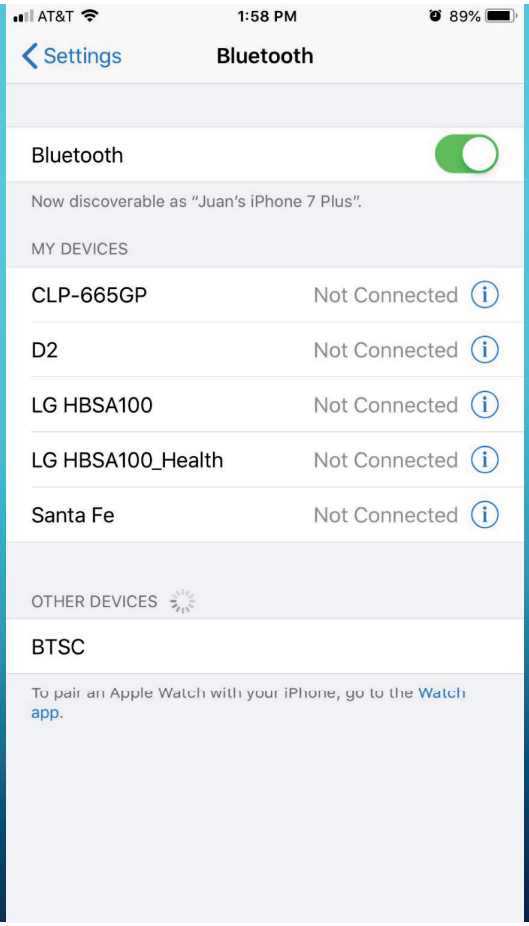
VIRGINIA AIR

VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

Monitoring Tool



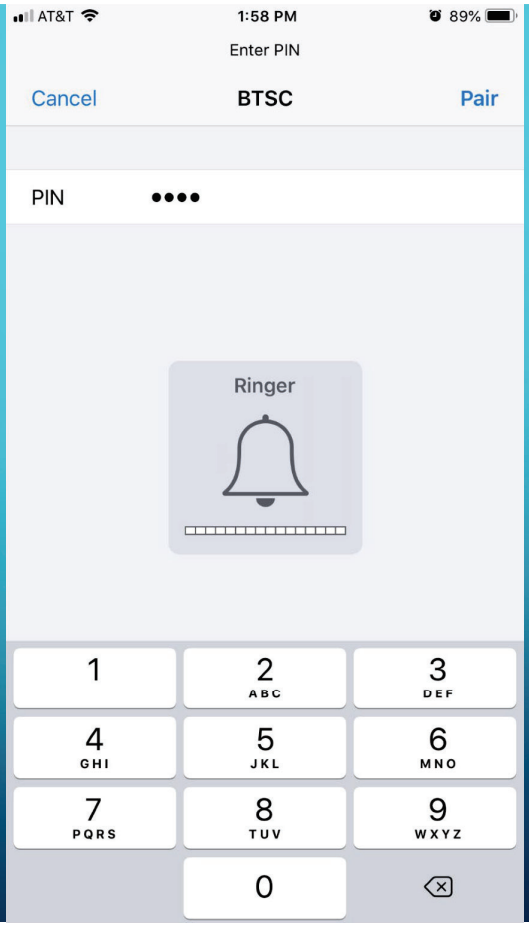
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



DAIKIN AIR INTELLIGENCE™

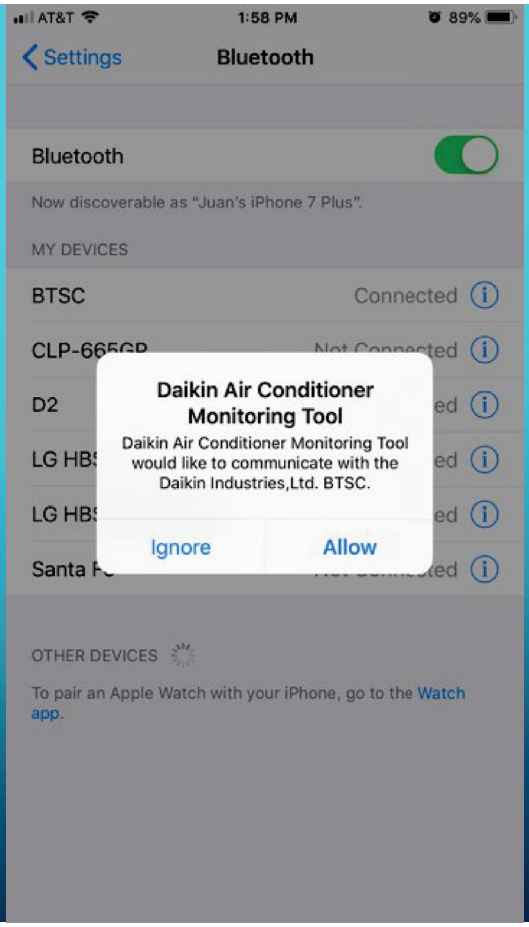
VIRGINIA AIR

VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

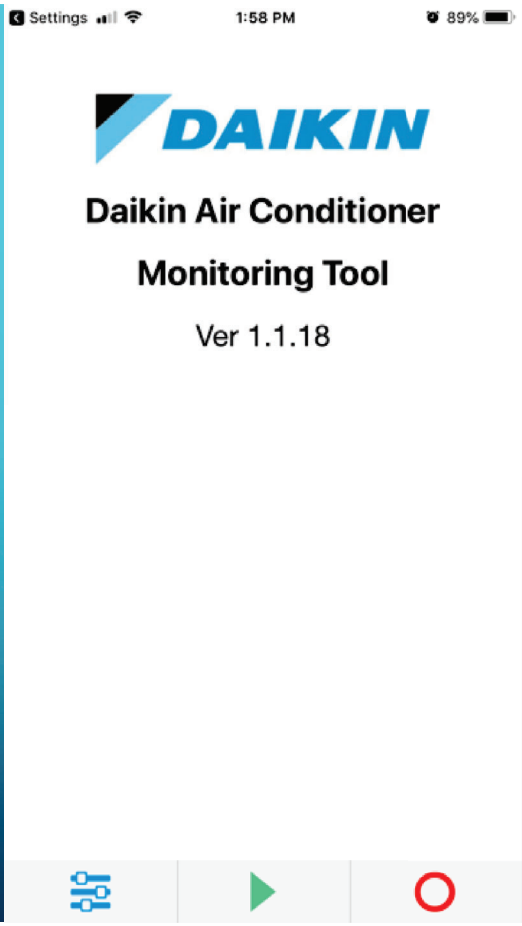
MonitoringTool



DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.


DAIKIN
Monitoring Tool
MonitoringTool
DAIKIN
AIR INTELLIGENCE™

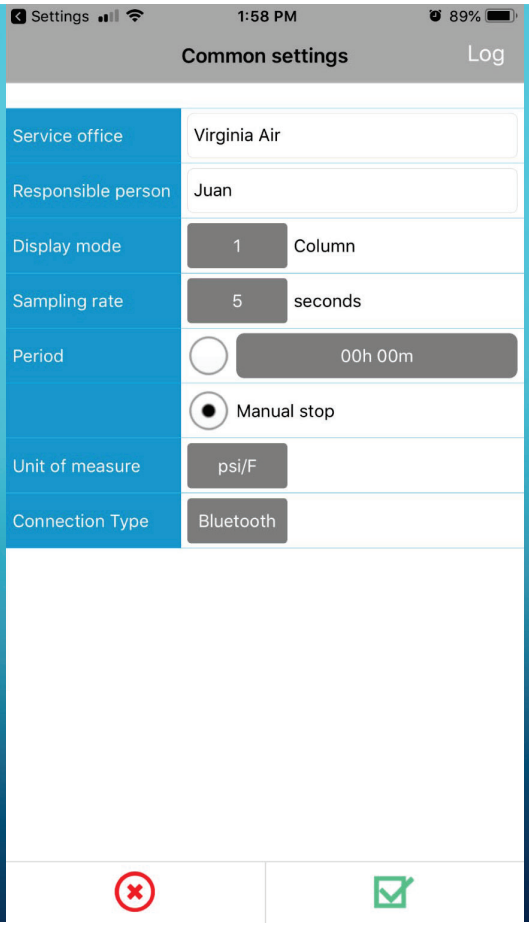

Settings
1:58 PM
89%
DAIKIN
Daikin Air Conditioner
Monitoring Tool
Ver 1.1.18


VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



DAIKIN
AIR INTELLIGENCE™

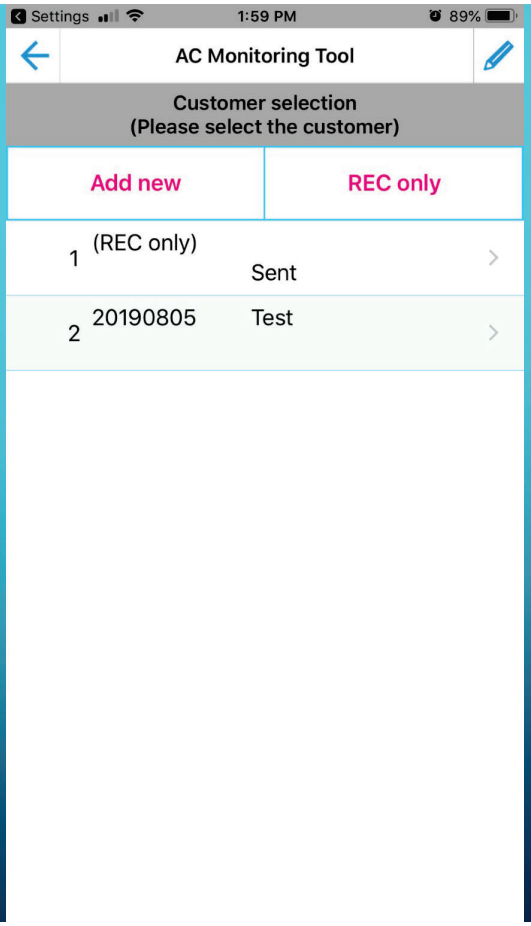
VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool

DAIKIN AIR INTELLIGENCE™



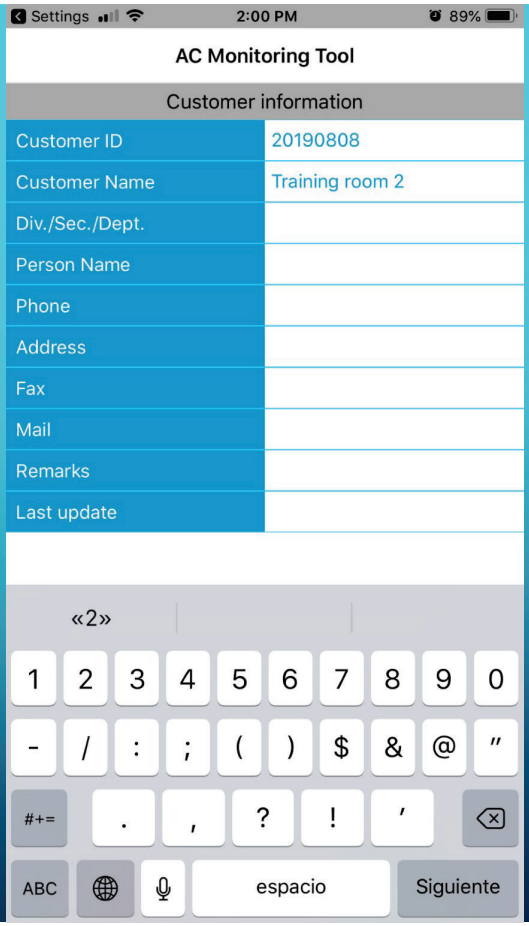
VIRGINIA AIR

VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



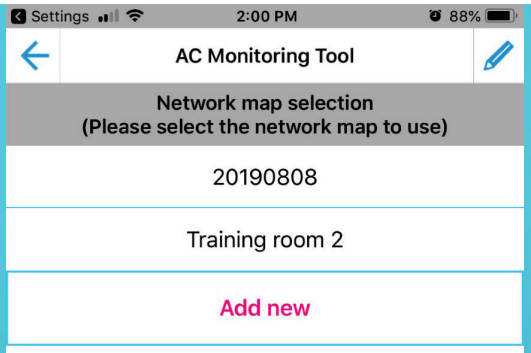
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



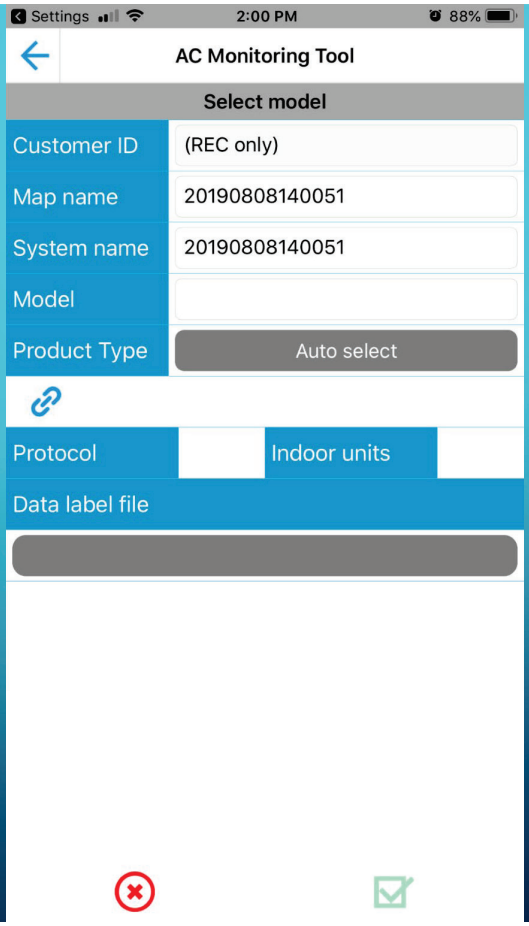
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



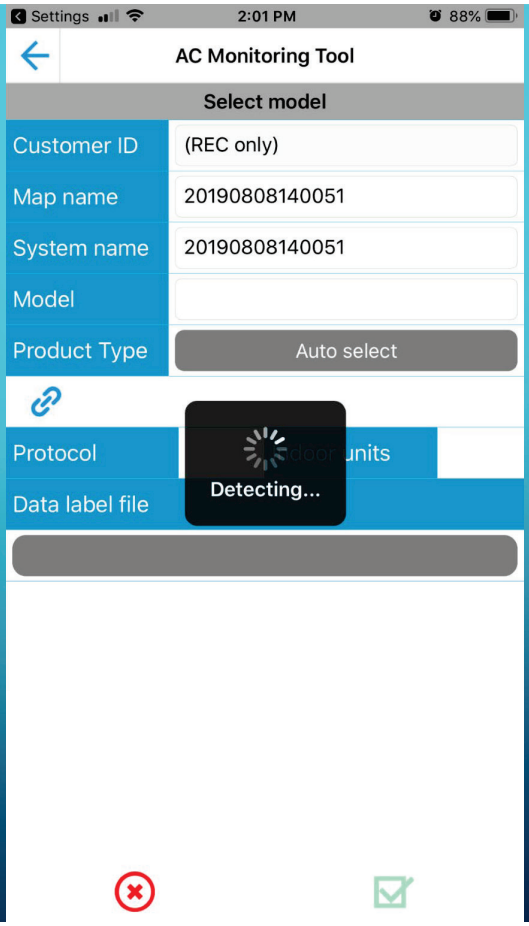
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



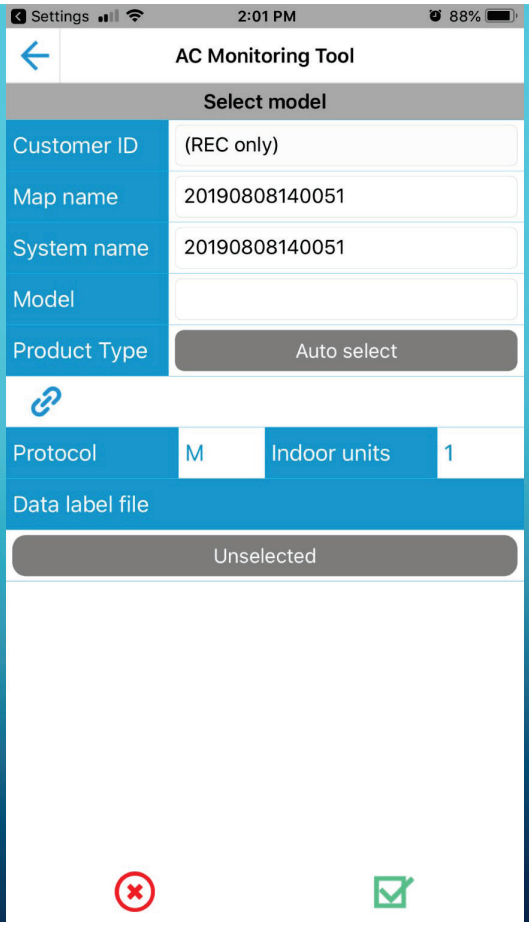
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



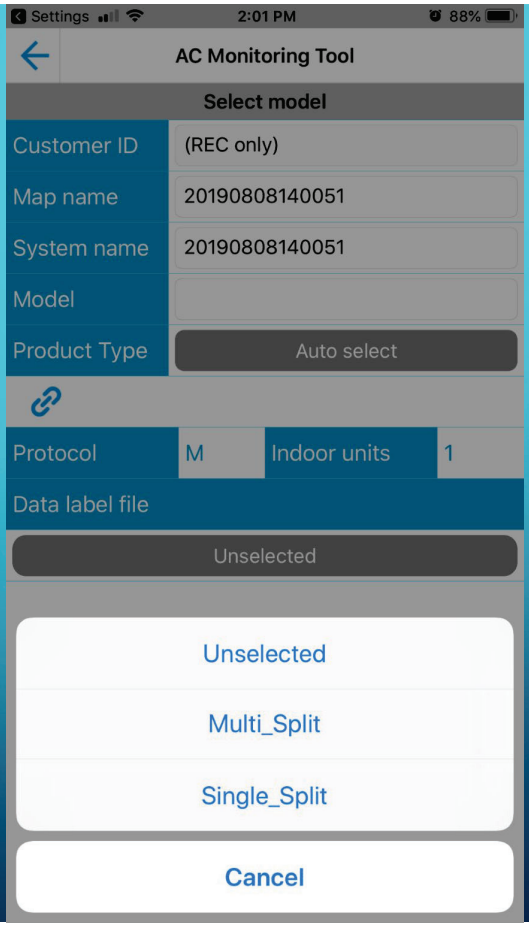
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



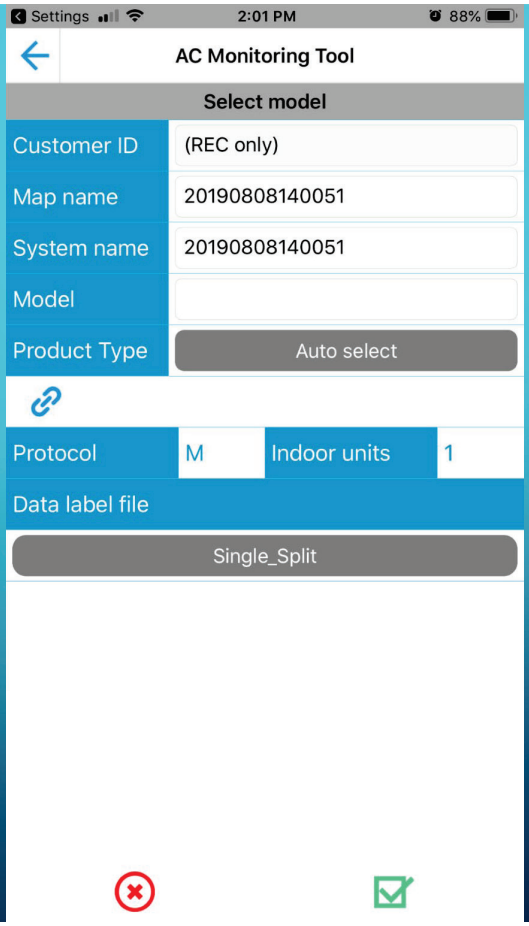
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



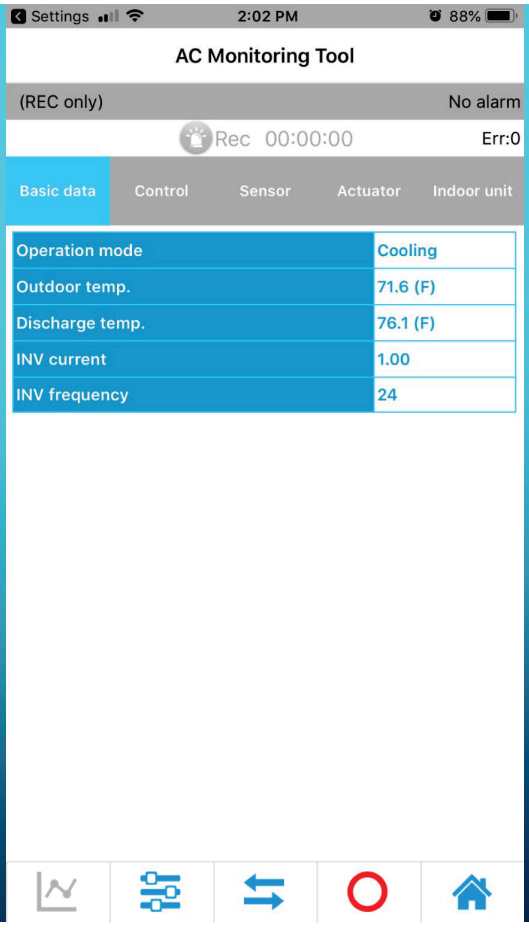
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



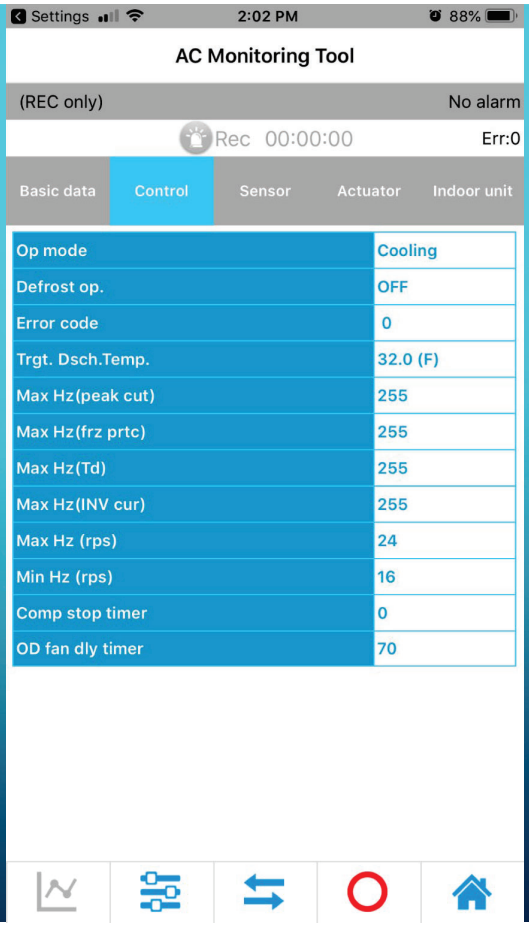
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



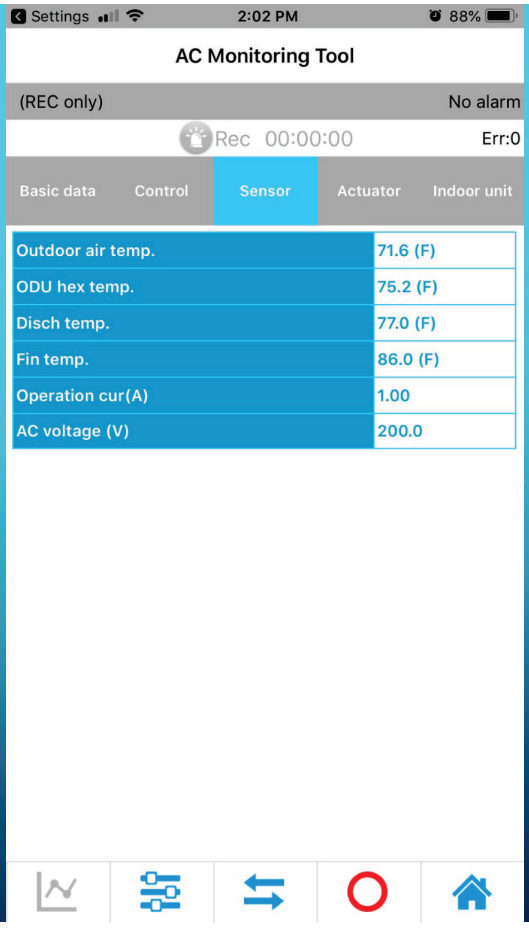
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool

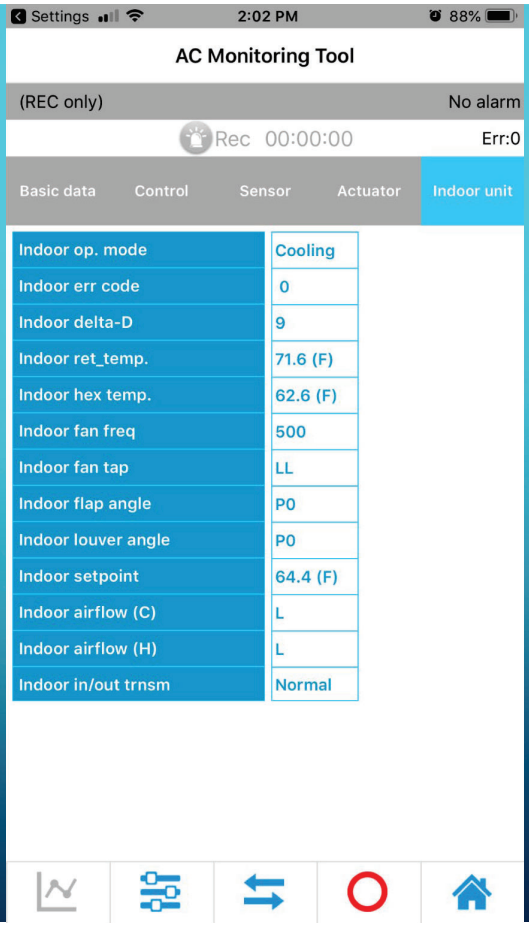
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



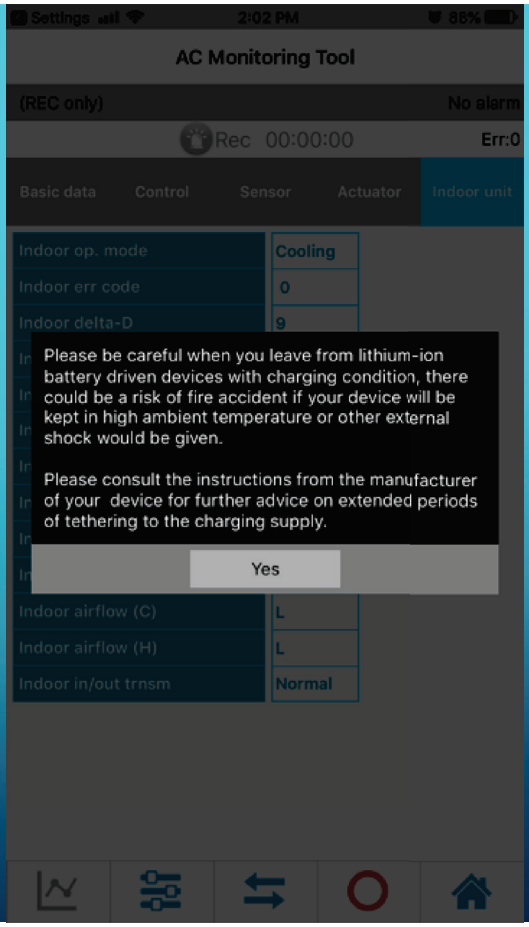
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



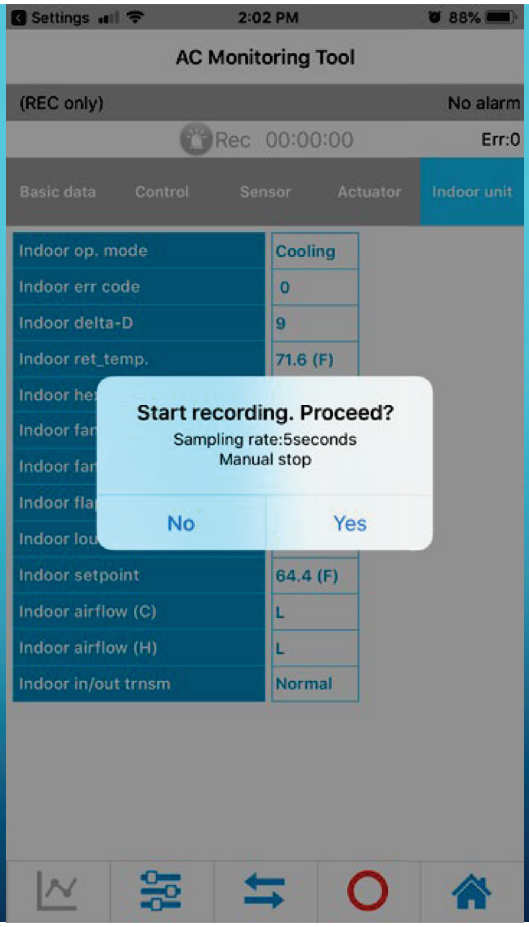
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



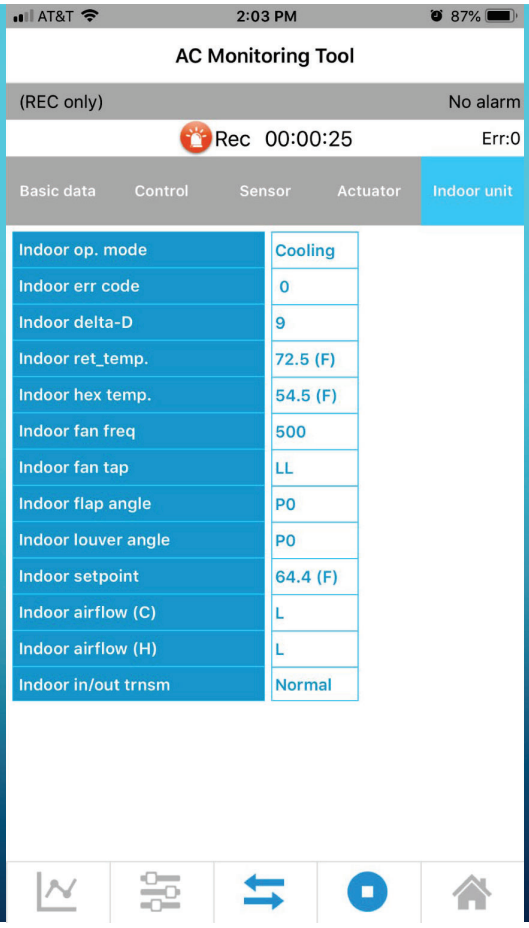
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



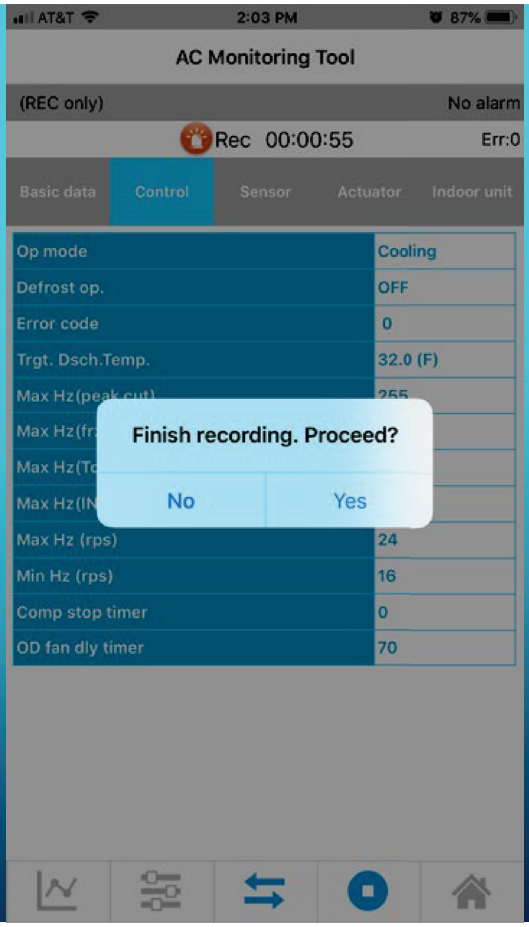
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



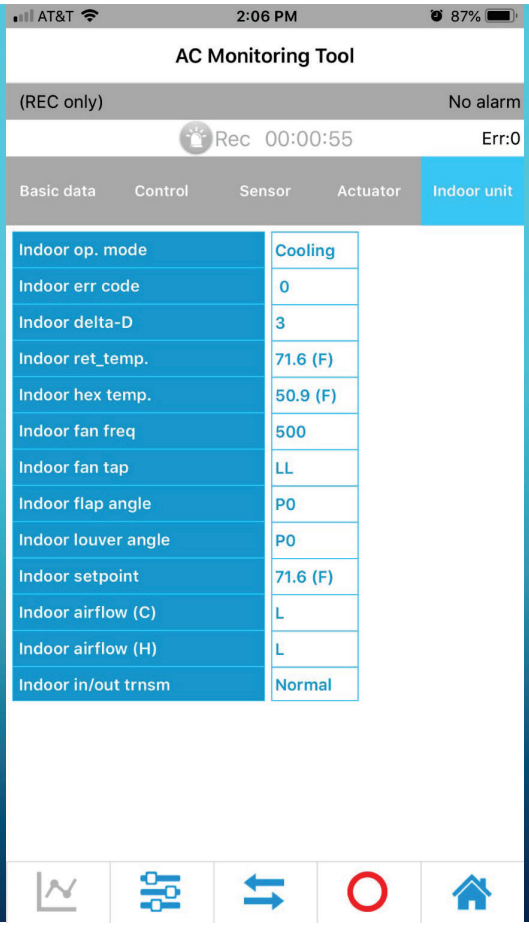
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



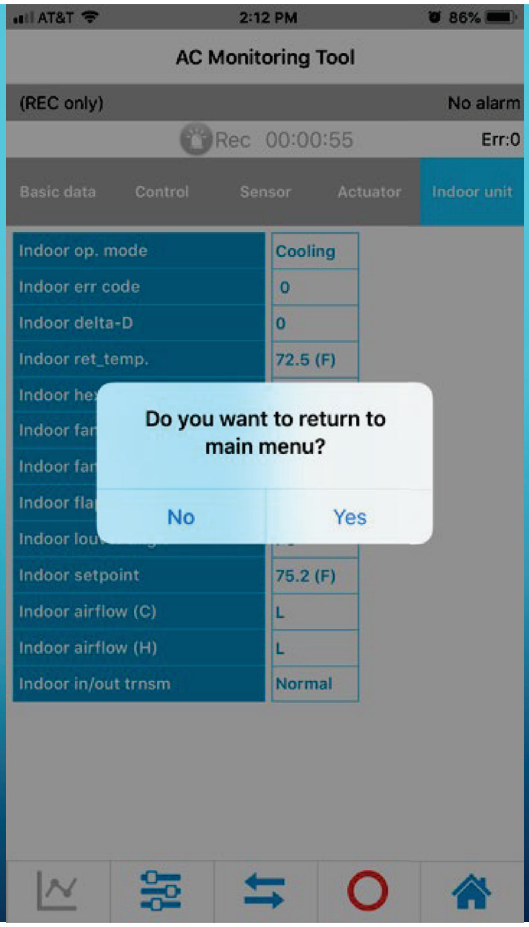
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

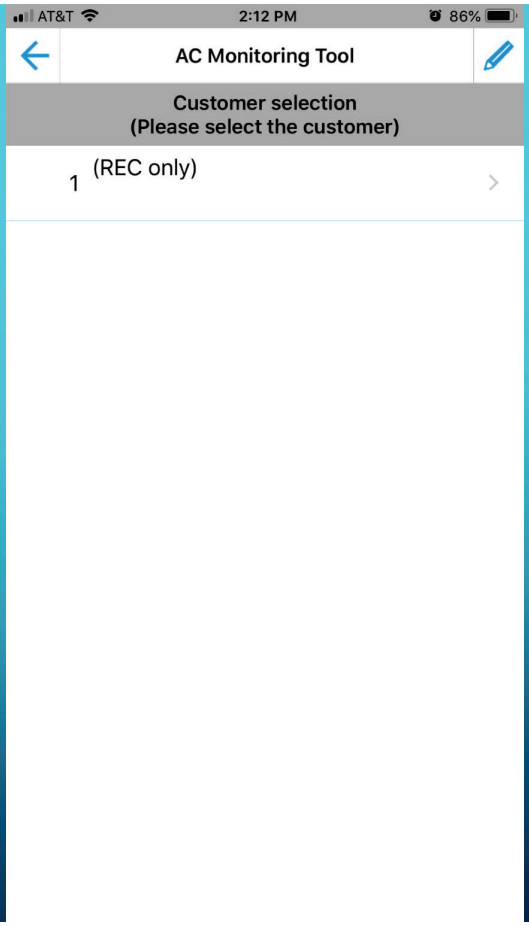
DAIKIN

Monitoring Tool

MonitoringTool

DAIKIN

AIR INTELLIGENCE™



VIRGINIA AIR

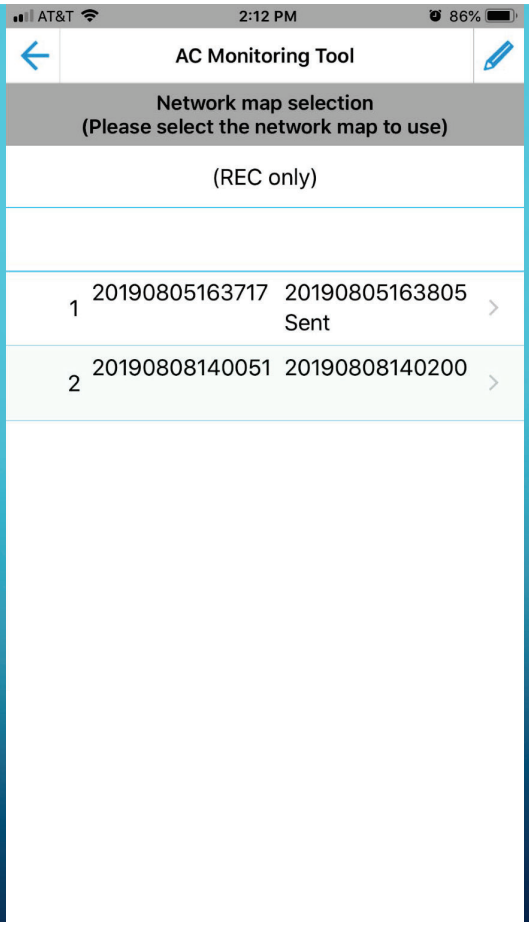
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool

DAIKIN AIR INTELLIGENCE™



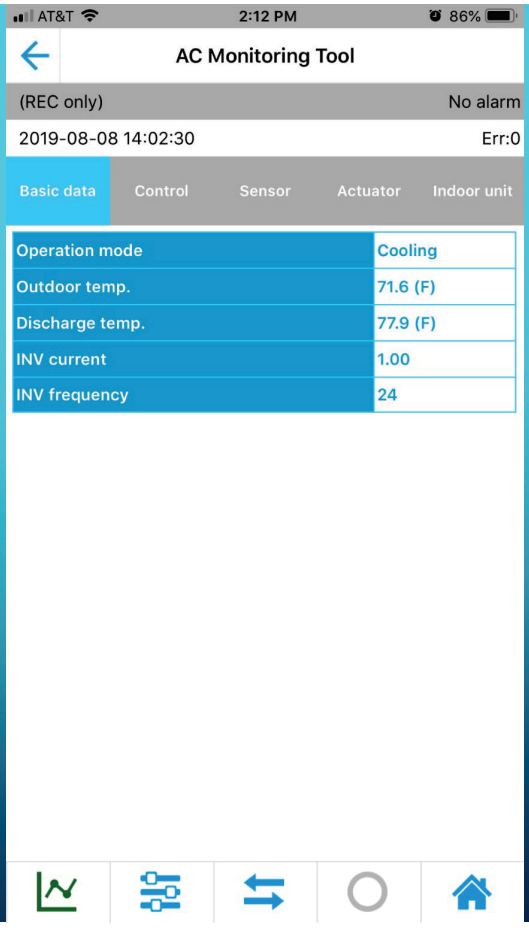
VIRGINIA AIR

VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



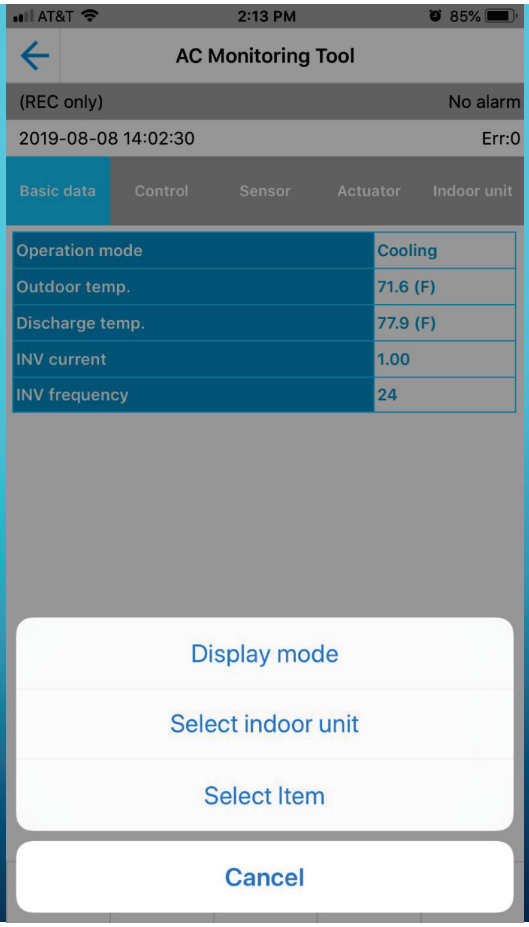
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

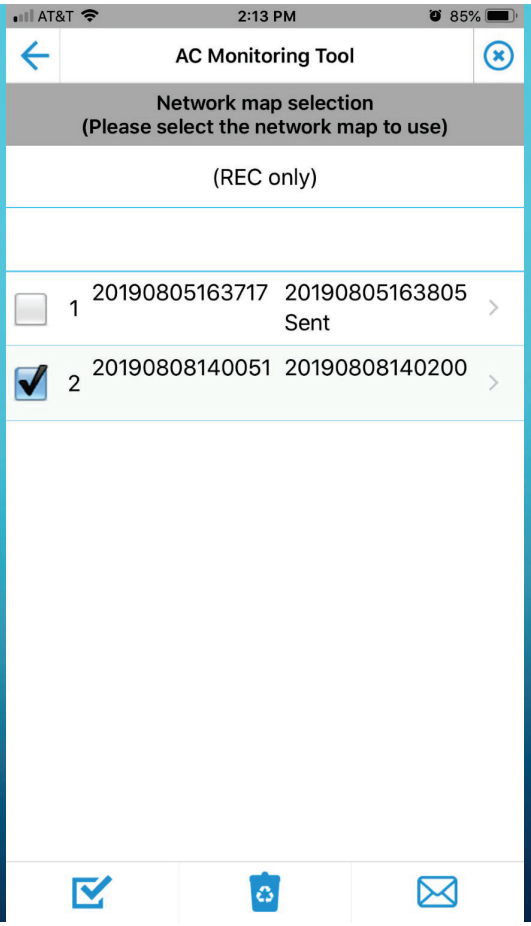
Monitoring Tool

MonitoringTool



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.



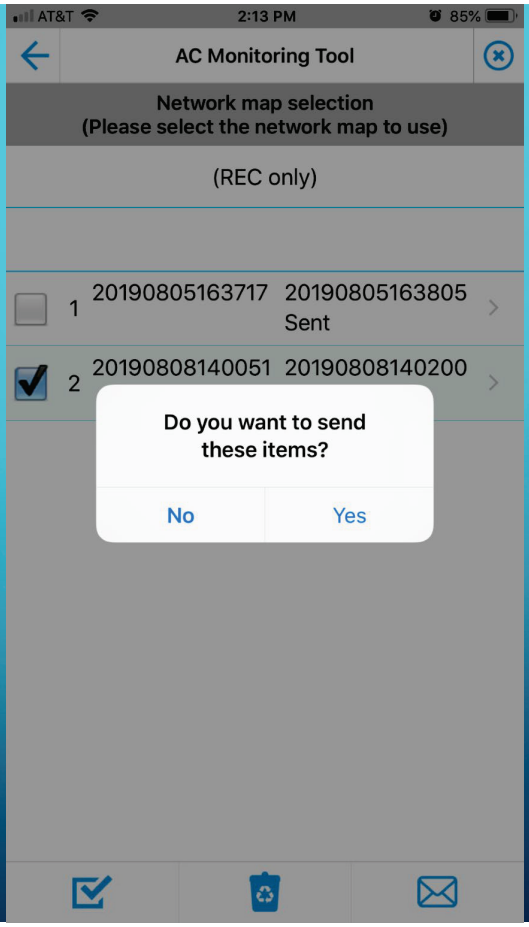
DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



DAIKIN
AIR INTELLIGENCE™

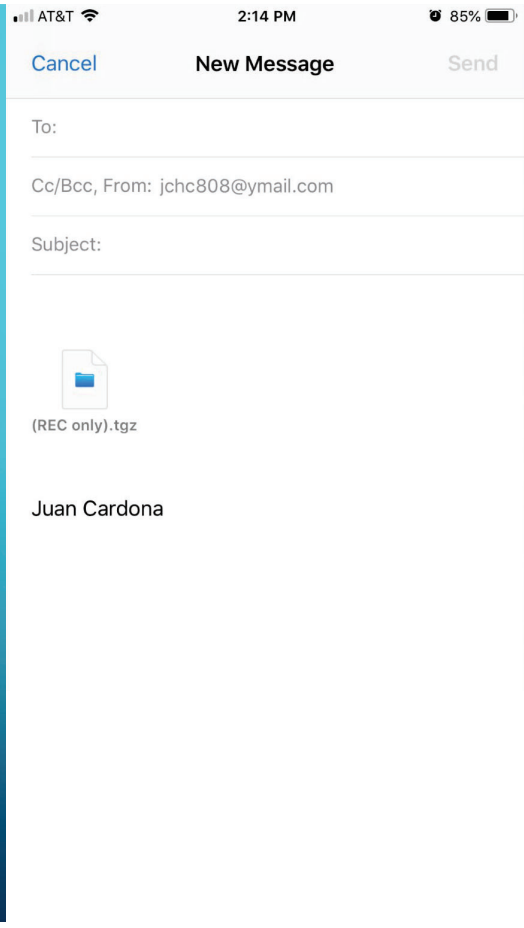
VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool

DAIKIN
AIR INTELLIGENCE™

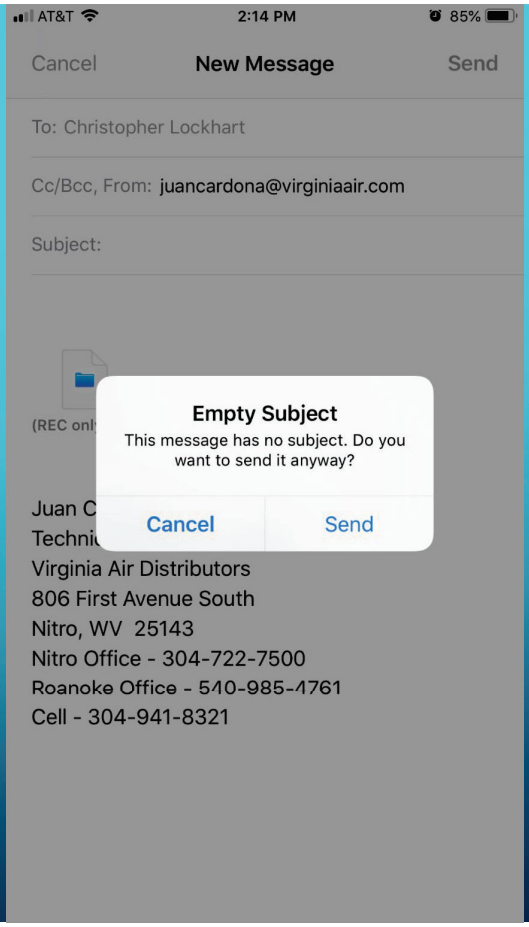


VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



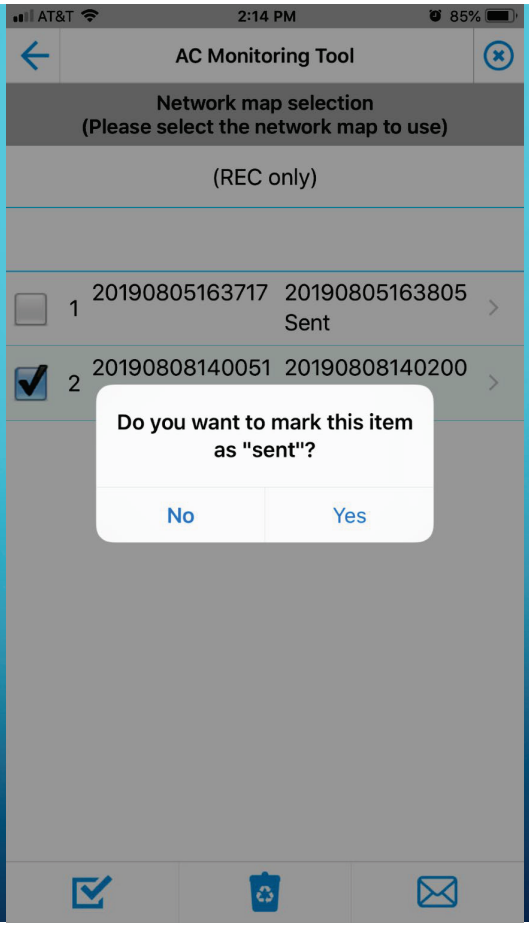
DAIKIN AIR INTELLIGENCE™

VIRGINIA AIR DISTRIBUTORS, INC.

DAIKIN

Monitoring Tool

MonitoringTool



DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

WHO IS READY FOR SOME HANDS ON EXCERCISES??

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.

END OF TRAINNG SURVEY

- Please scan the below QR code and take our survey regarding the 2-day training you just took:
- URL: www.surveymonkey.com/r/JJQFRX7

DAIKIN
AIR INTELLIGENCE™

VIRGINIA AIR
VIRGINIA AIR DISTRIBUTORS, INC.