



RESIDENTIAL CONTROLS

Mingledorff's Technical Services / SE

03/19/2025

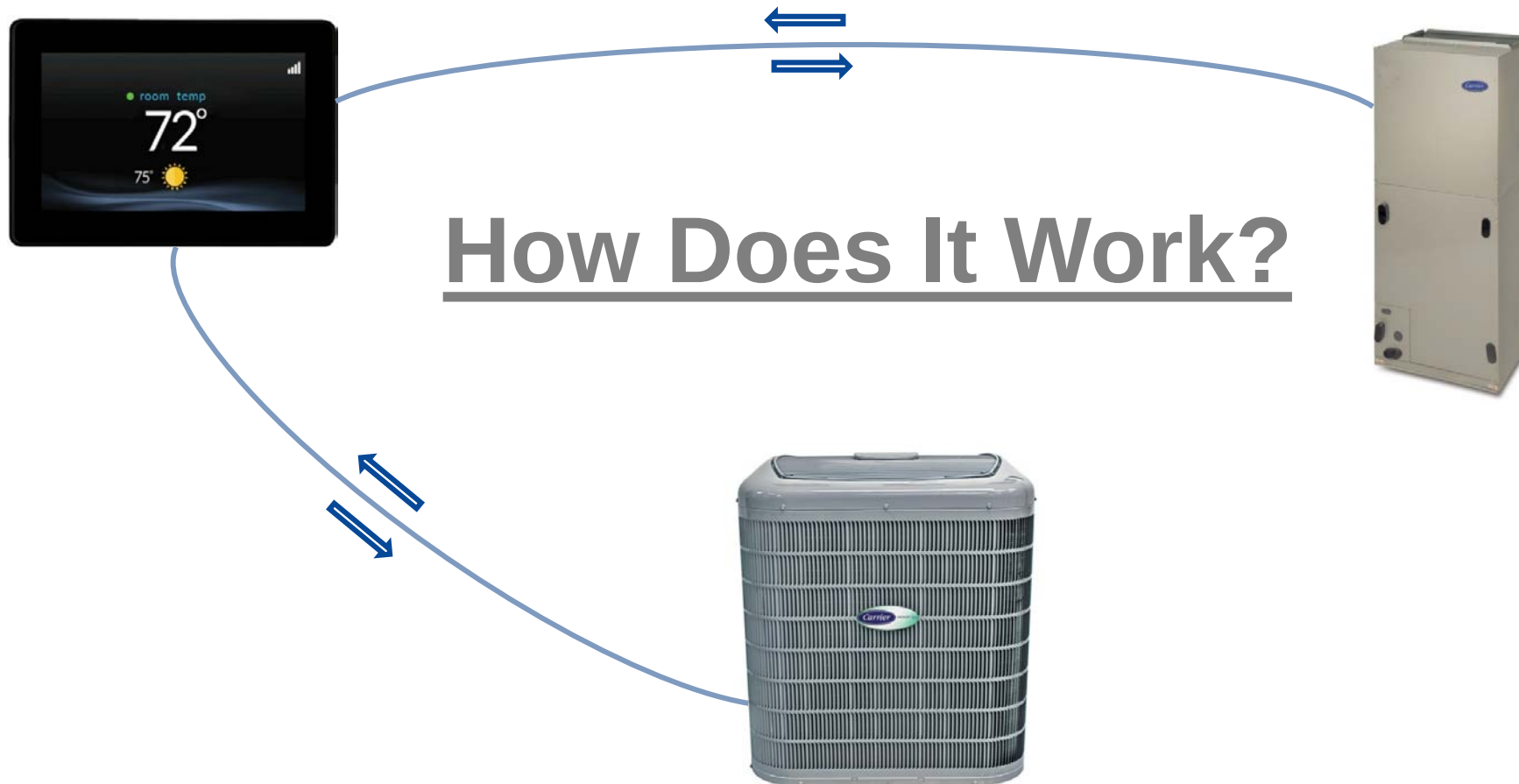
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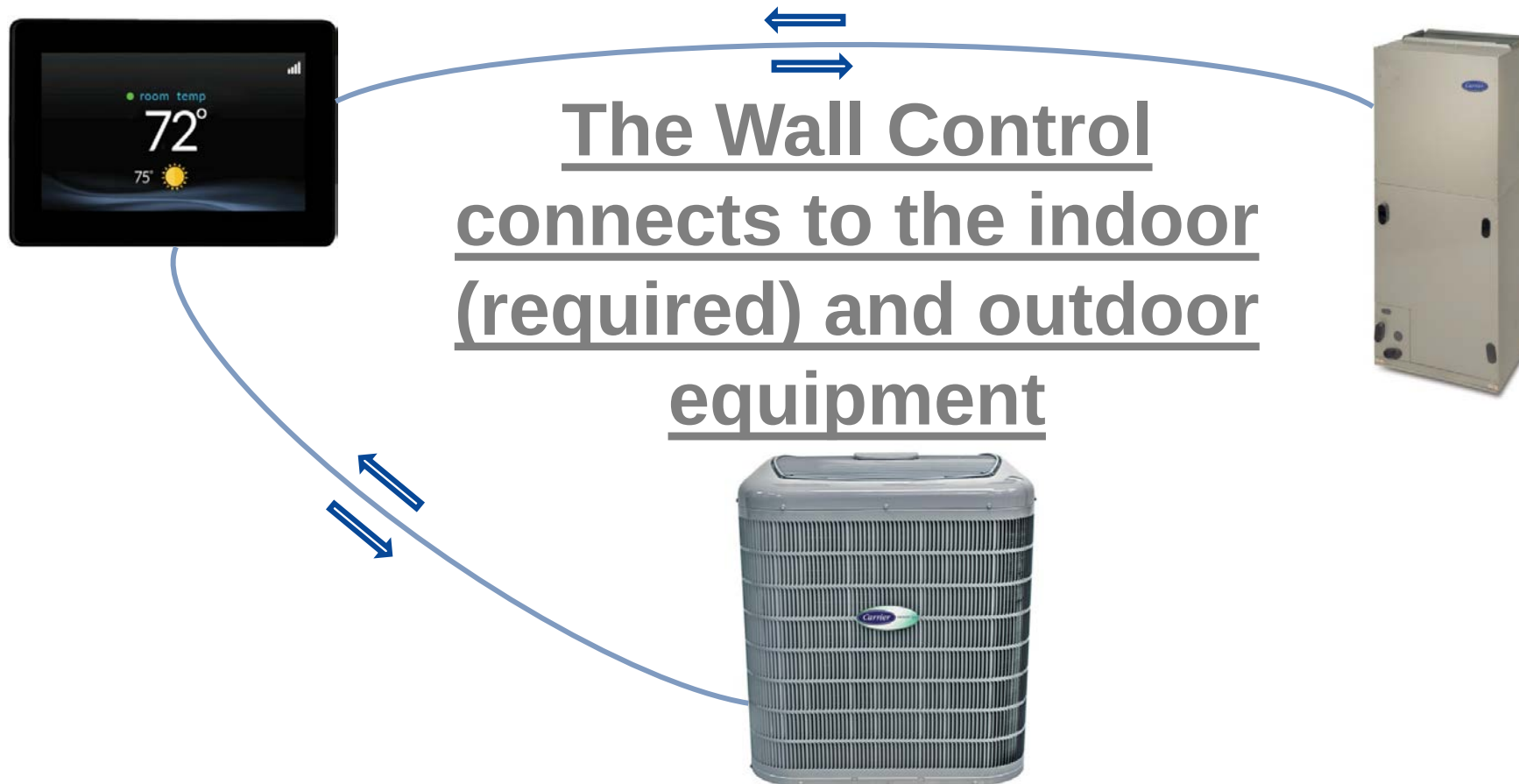
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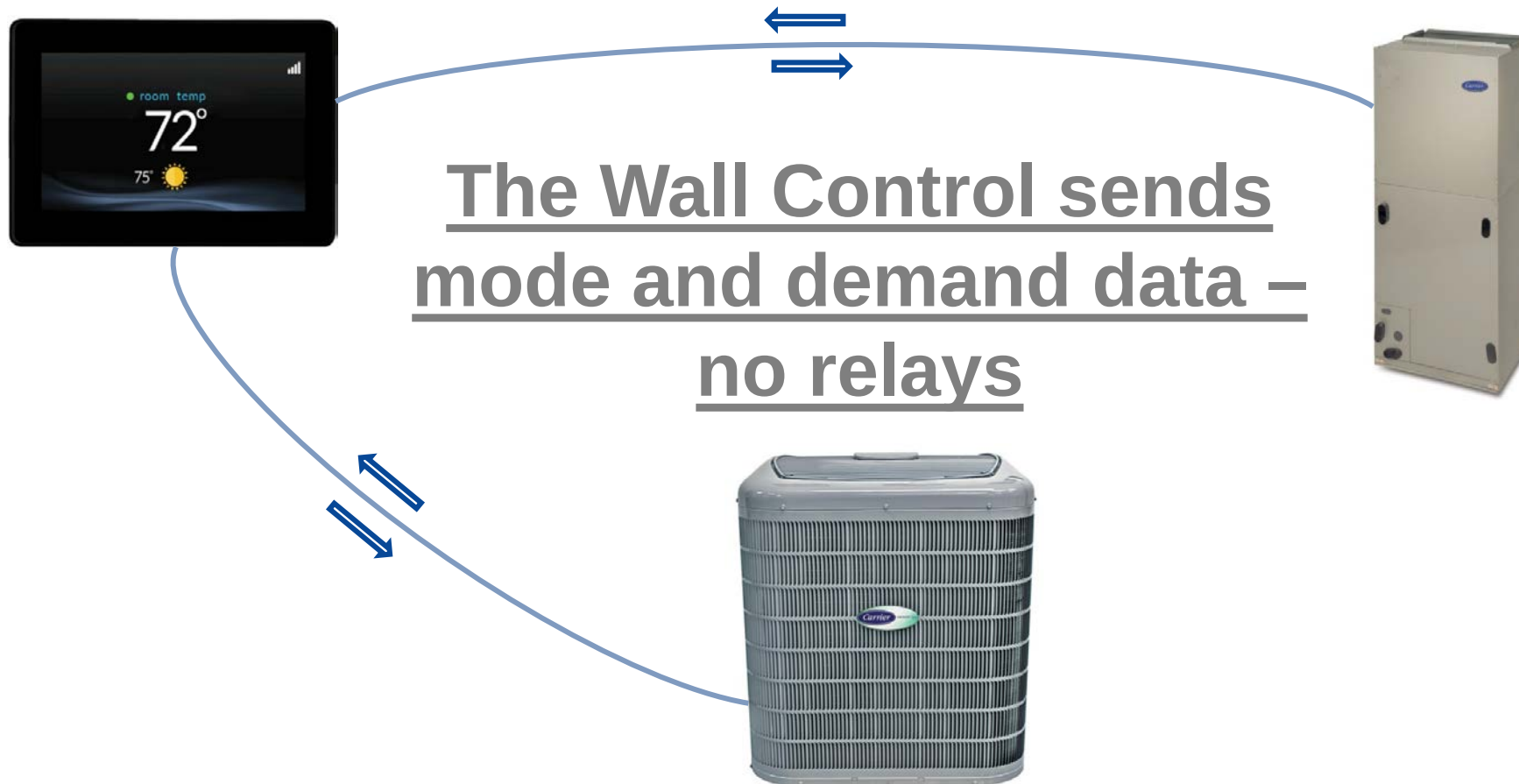
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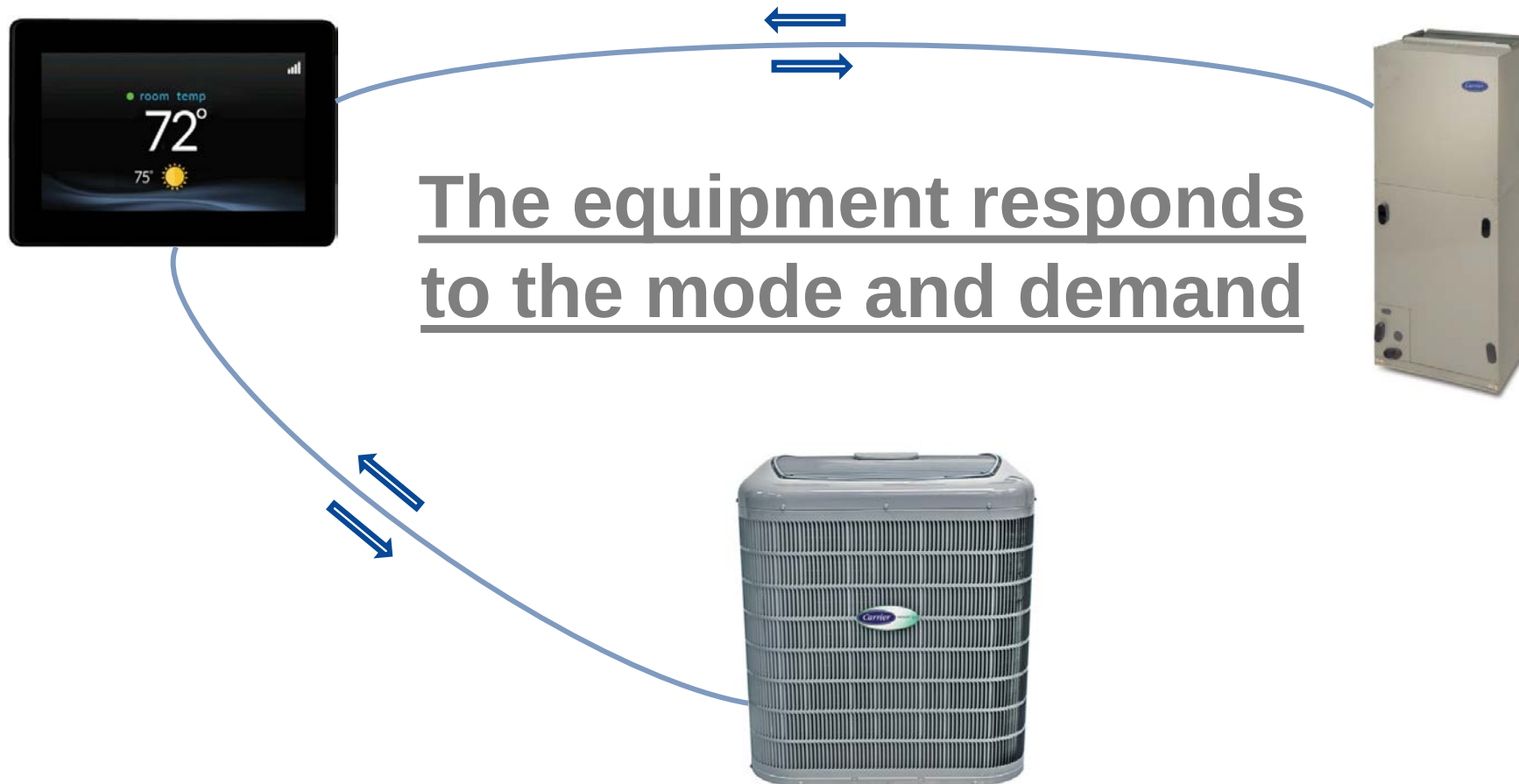
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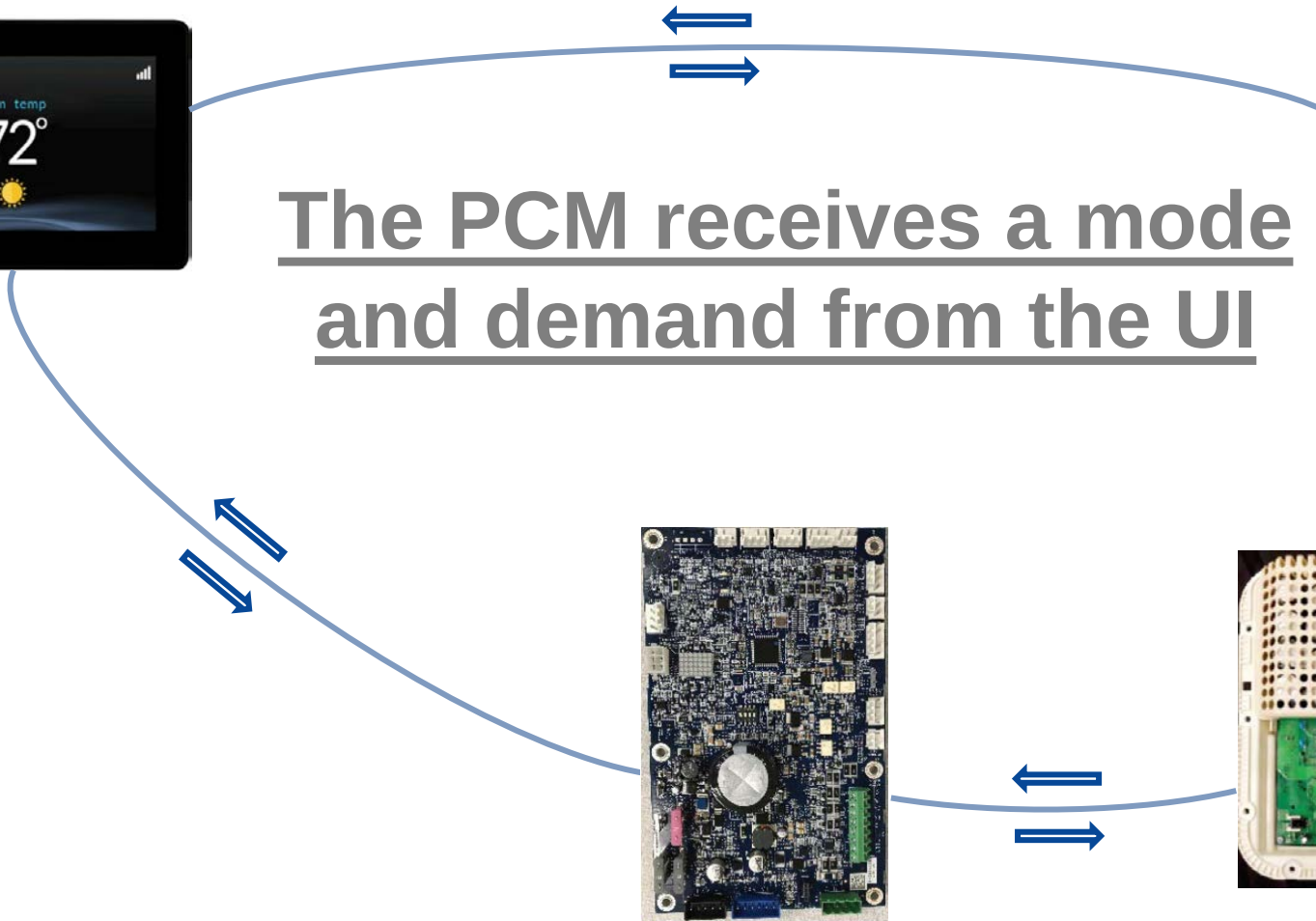






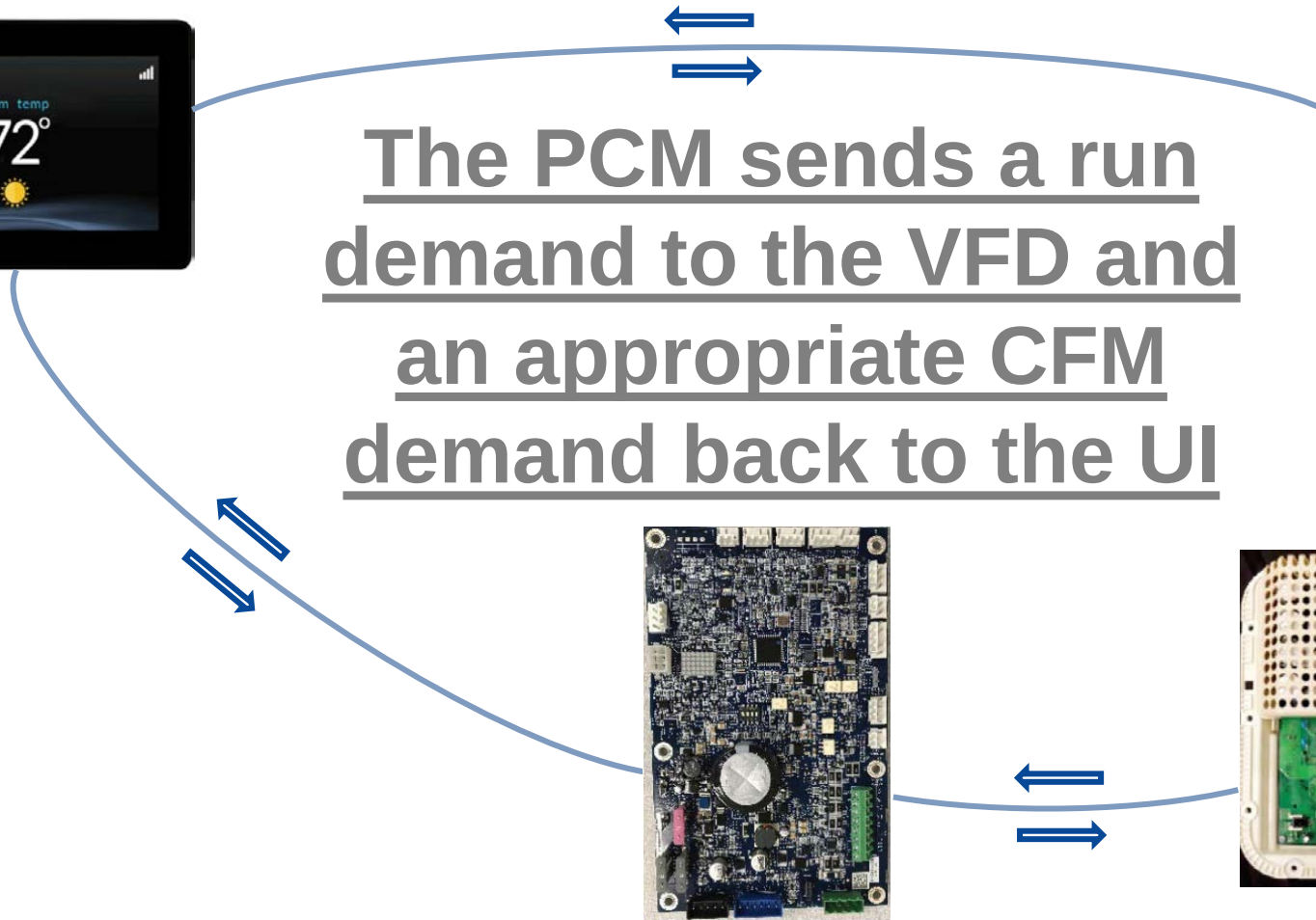
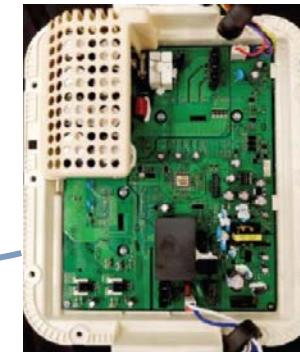
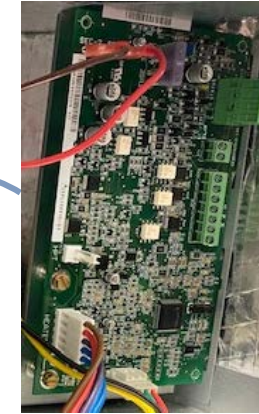


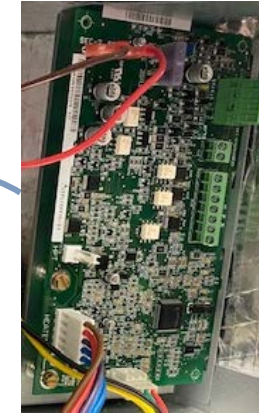
The PCM receives a mode and demand from the UI



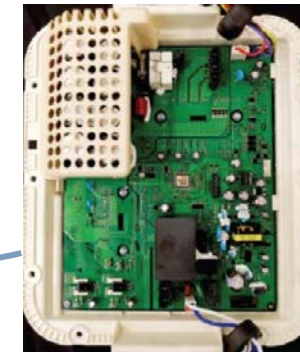


The PCM sends a run demand to the VFD and an appropriate CFM demand back to the UI



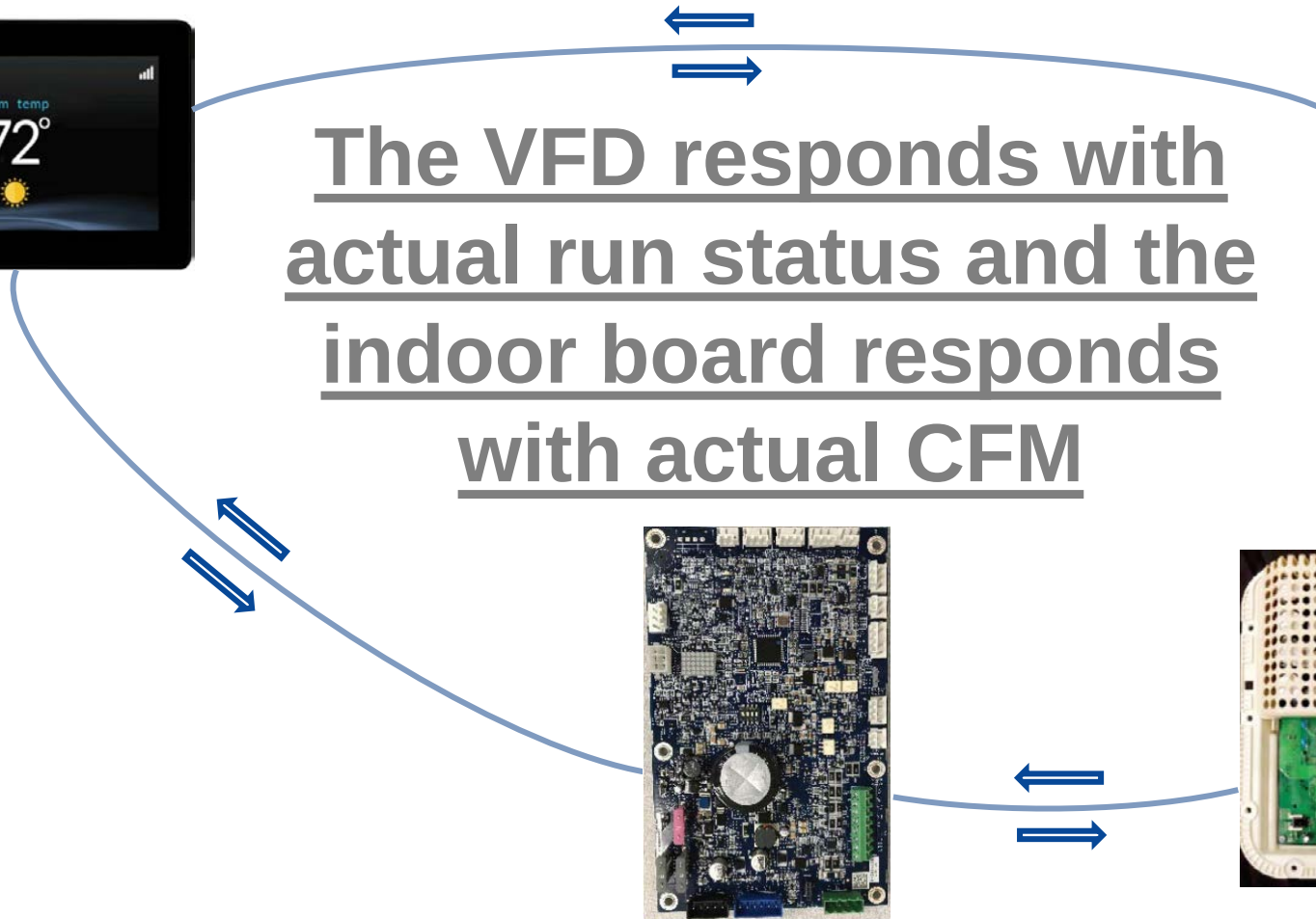
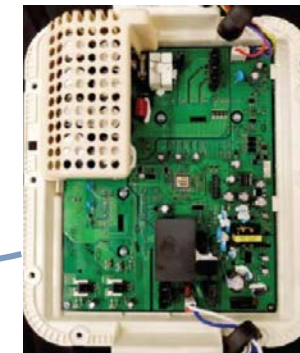
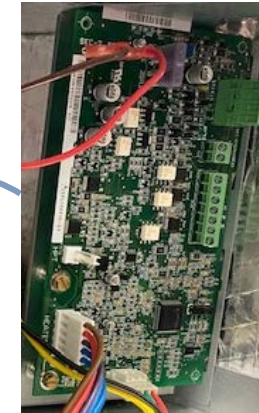


The UI passes the CFM demand to the indoor unit





The VFD responds with actual run status and the indoor board responds with actual CFM



- Software is software
 - If not updated, it will work the same as it always has
 - The UI does not contain relays like a conventional thermostat
 - If no equipment operation and the UI is requesting heating or cooling and is communicating with the indoor and outdoor boards, the issue is not the UI
 - Check the operating status screen

- Software is software
 - If the UI is requesting heating or cooling and the outdoor unit is not operating, it is not the indoor board
 - In this case, there is something keeping the outdoor unit from operating
 - Could be a condition like temperature or pressure etc.
 - May consider connecting the PCM as a conventional 24V system and see if it operates
 - Verify faults in service manual

- What voltages to expect
 1. A & B at the indoor or outdoor board with nothing connected approximately 2.5 to 4VDC
 2. A & B **wire** from the wall control and not connected to an indoor plug, no less than 2.4VDC
 3. System connected, voltages 2.5 to 4 VDC fluctuating

Series B System Control



SYSTXCCITC01-B



SYSTXCCWIC01-B

SYSTXCCICF01-B

SYSTXCCWIF01-B

Series C System Control



SYSTXCCITC01-C

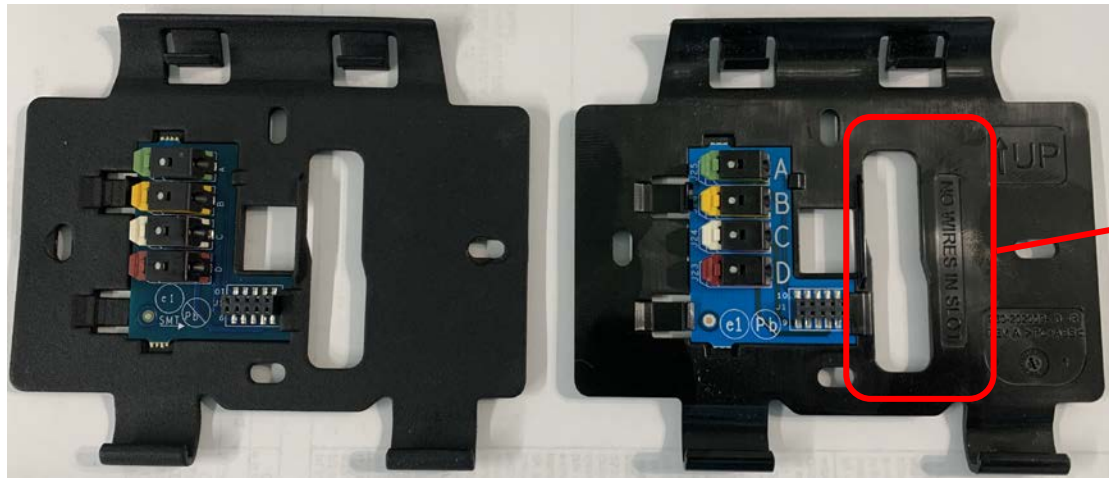


SYSTXCCWIC01-C

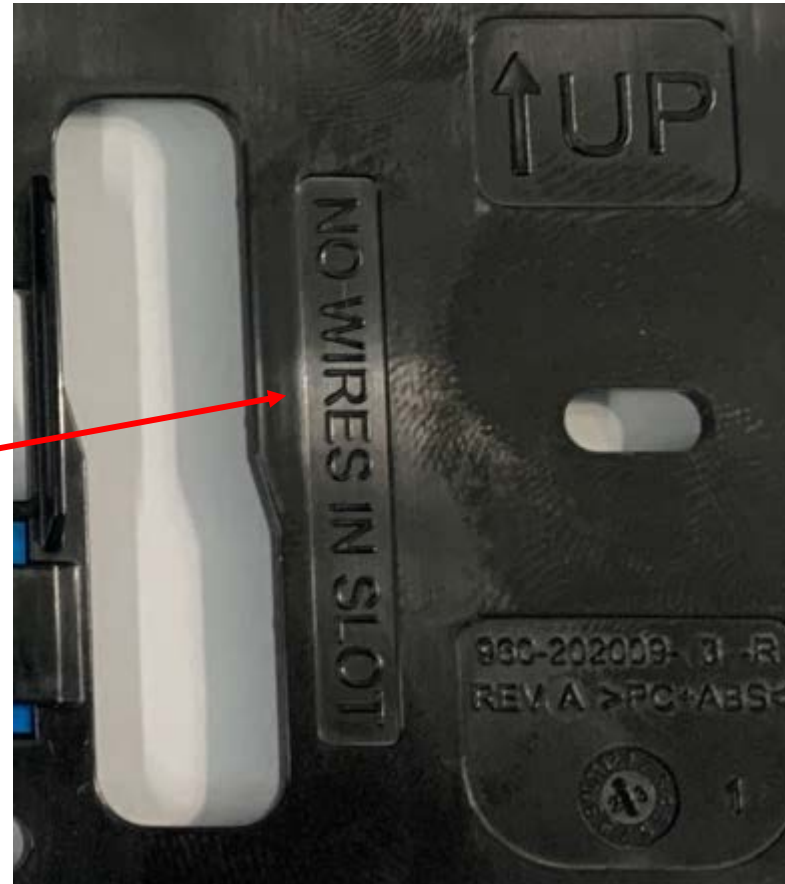
- C NEW FEATURES

- Built with the USB-C starting week 3323W 1.47 software
 - New models have W in serial number
 - New Box
 - Ambient light
 - Undercarriage lighting
 - Night Lite
- } All 3 are found under Menu then display

MOUNTING/WIRING/USB PORT



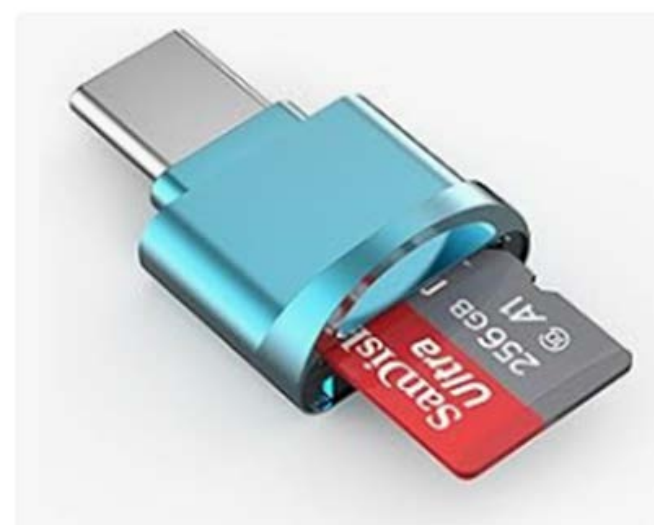
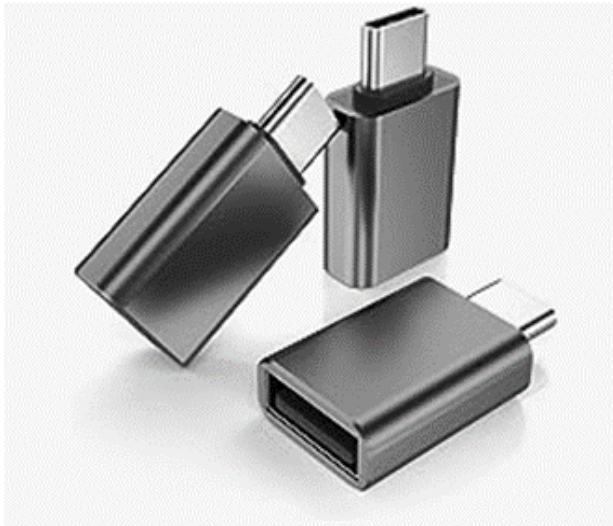
Must hook at the bottom and snap in at top



USB Port:
Lower
Right Side

-C WALL CONTROL

- -C wall control with USB-C connection allow for manual software updates.
 - USB-C connectors can support faster data transfer speeds than traditional USB connectors
 - Several adapter options
 - No larger than 32GB, 16GB preferred.



⚠ No Connection to Data Server

- Whitelisting (Security Verification) was an early cause of no connection to data server
 - Corrective action implemented 1-18-24
 - New internal process
 - Fixed cloud data on thousands of units
- Duplicate serial numbers (Both –B and –C Models)
 - Corrective action implemented 8-28-24
 - Factory Corrective Action – MES Updates
 - Field Corrective Action – SMB24-0013
- -C startup sequencing improvement
 - Corrective action implemented 11-11-24
 - Wi-Fi Chip OTA Firmware Update

Whitelist problems on controllers due to MAC address issues at Carrier Server

- Controller escaped manufacturing with multiple issues that cause MAC connectivity confirmation problems
- (15) identified issues
- Several have been corrected in last few weeks
- Balance of known issues at Carrier server planned to be resolve by end of First Quarter
- 90% Carrier Server/10% Homeowner Wi-Fi issues
- MAC address issue resolution should solve 98% of the 90% Carrier service issues

No Connection to Data Server

- New process of provisioning from factory to cloud (mimic Smart Thermostat) is in the works
 - Working Towards More Automated Data Transfer
 - Working Towards Automated Data Verification
 - Adding product traceability throughout the chain
- Service Bench/ PHDB serial numbers missing
 - Has no impact on connection to data server
 - Manually loaded thousands of missing serial numbers (January 2025)
 - Temporary serial loading process in place
 - Working towards an automated process (May 2025)

- Green Zero = Not connected to factory server
 - Could mean anyone of the above (15) identified problems
 - Future controllers to have a more specific error code to help identify specific issue for troubleshooting.

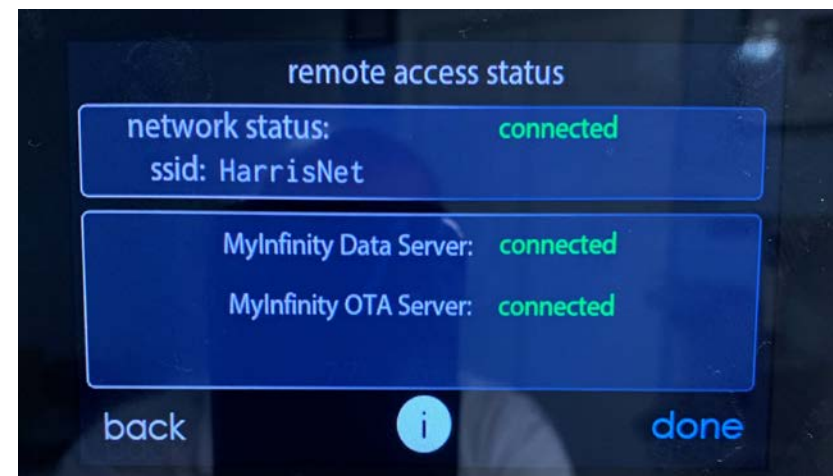
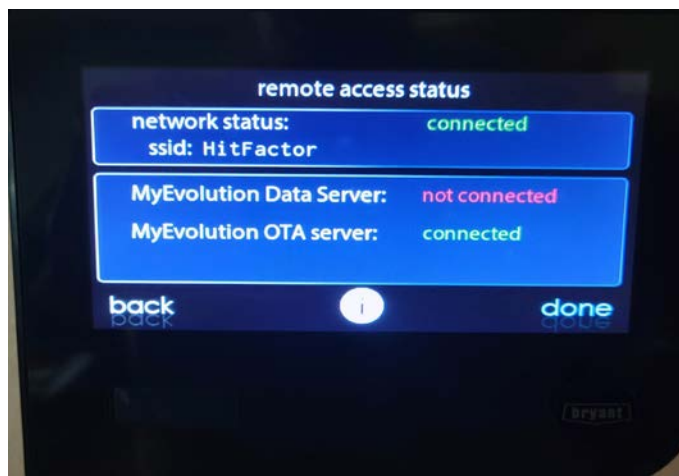
•Product Hold- System Control Connectivity

- SYSTXCCITC01-C, SYSTXCCWIC01-C
SYSTXBBECC01-C, SYSTXBBWEC01-C
- Carrier is requesting that distribution quarantine serial numbers currently impacted by missing data that prevents connection to Carrier servers.

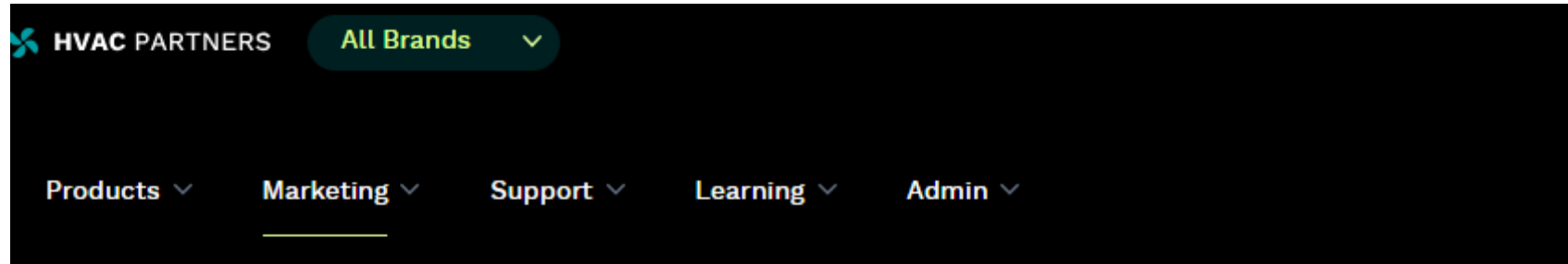
CONTROL SETUP



- Keep in mind with both –B and –C controls use only 2.4GHz band as the connection point to the local routers.
- With changes in software design and protocols a new wall control may take up to 30 minutes to provision and connect to the servers.
- RouteThis is an option
 - Last resort & must be scheduled.



INTELISENSE – CONNECTED PORTAL



Marketing / Dashboards & Portals

Connected Portal



New Connected Portal



Completely redesigned for a best-in-class experience. Gain insights with enhanced run-time reports and perform remot...



New Connected Portal

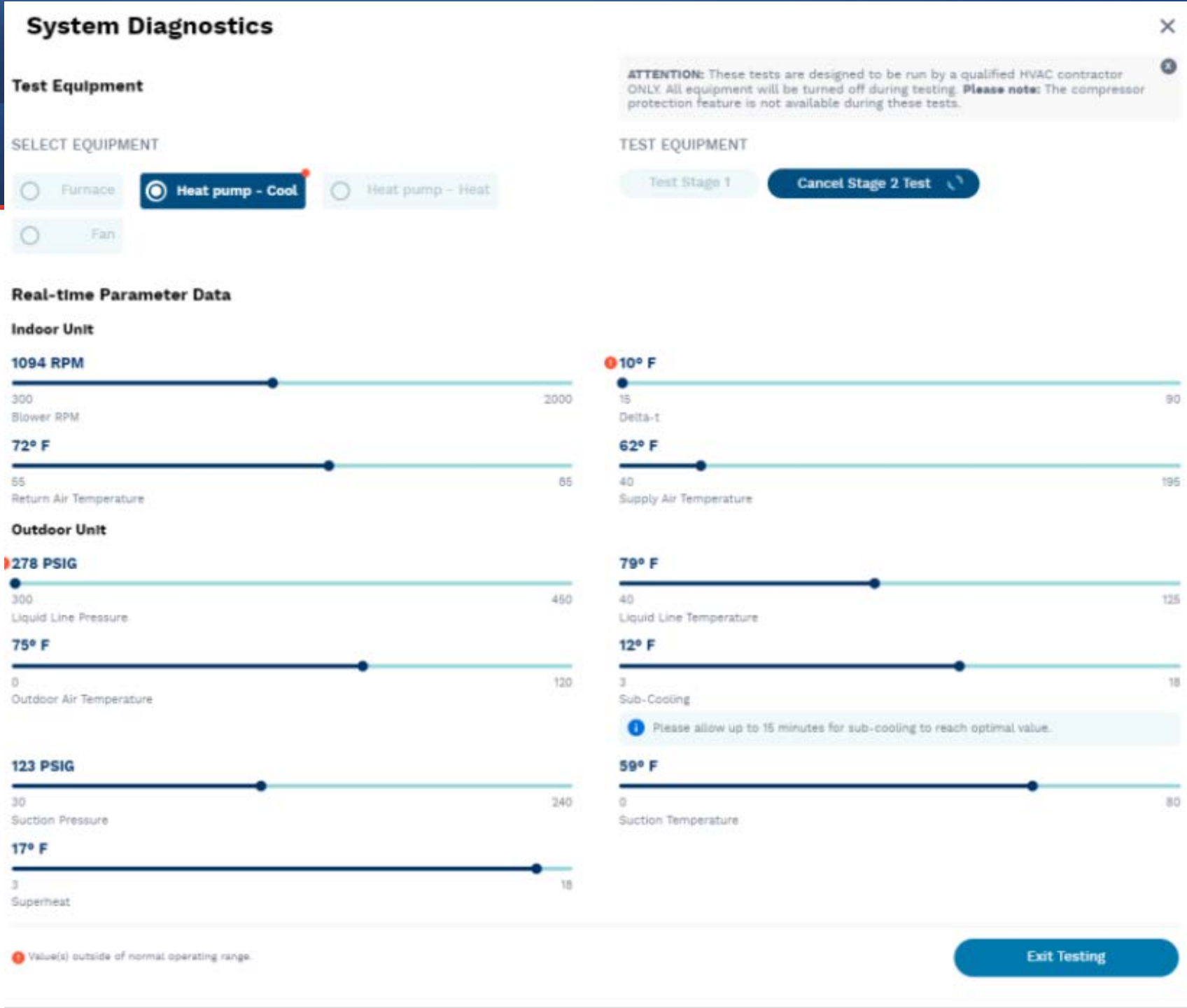


Completely redesigned for a best-in-class experience. Gain insights with enhanced run-time reports and perform remot...



InteliSense

Consumer receives notification with any changes



INFINITY / EVOLUTION CONNECTED PORTAL

Homeowners Name

PROPERTY

CUSTOMER INFORMATION

DEALER INFORMATION

Property address

Email and user ID

Dealer must
be listed

Customer system
name

Data Sharing: ☒ VIEW STATUS ☒ VIEW CONFIG ☒ EDIT CONFIG

[Notification Preferences](#)



Infinity® System Control (White)

Model No: SYSTXCCWIC01-B

Serial No:

Firmware: CESR131626-04.56

[Documentation](#)

[Product Details](#)



Infinity® 96 Gas Furnace

Model No: 59TN6B120C241122

Serial No:

Firmware: CESR131672-04

[Documentation](#)

[Product Details](#)



Multi Stage AC

Model No: 60KBTU

Serial No:

Firmware: CESR131564-11

[Documentation](#)

[Product Details](#)

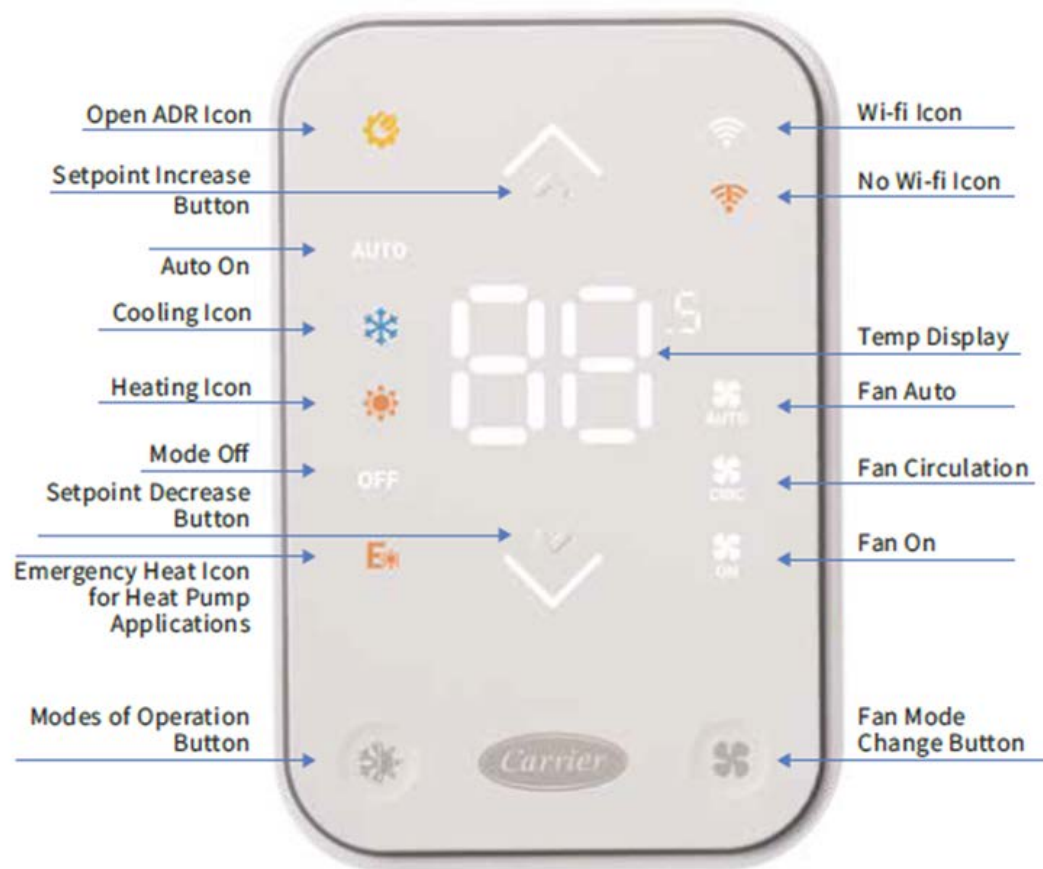
NEW WI-FI SMART THERMOSTAT



- TSTATCCEWF-01
- TSTATBBEWF-01



NEW WI-FI SMART THERMOSTAT



NEW WI-FI SMART THERMOSTAT

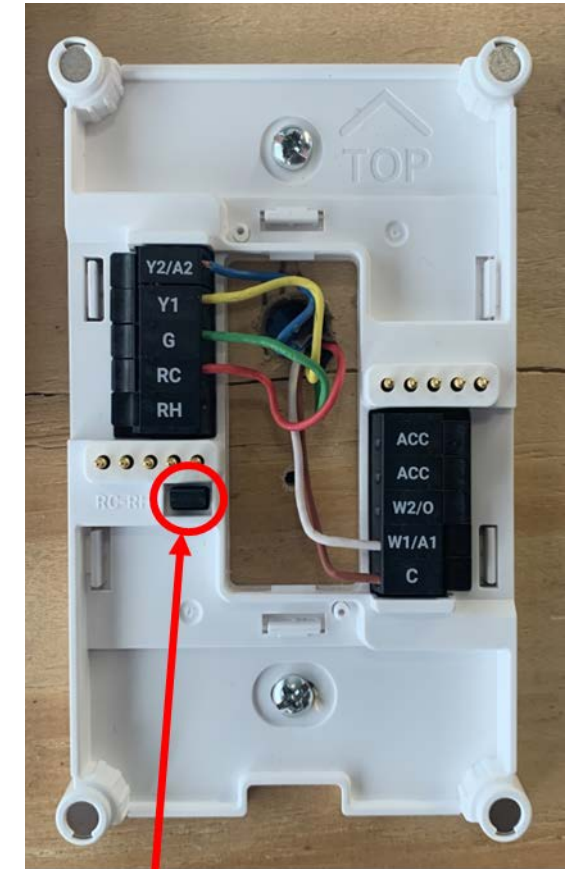
- 2H/2C Standard, 3H/2C Heat Pump
- temperature, humidity, proximity and ambient light sensors
- Programmable scheduling via the Home App
- One accessory output



Simple Wi-Fi connection to thermostat with
Bryant or Carrier Home app
Account creation
Opt-in to dealer permissions for data sharing
View thermostat data via app



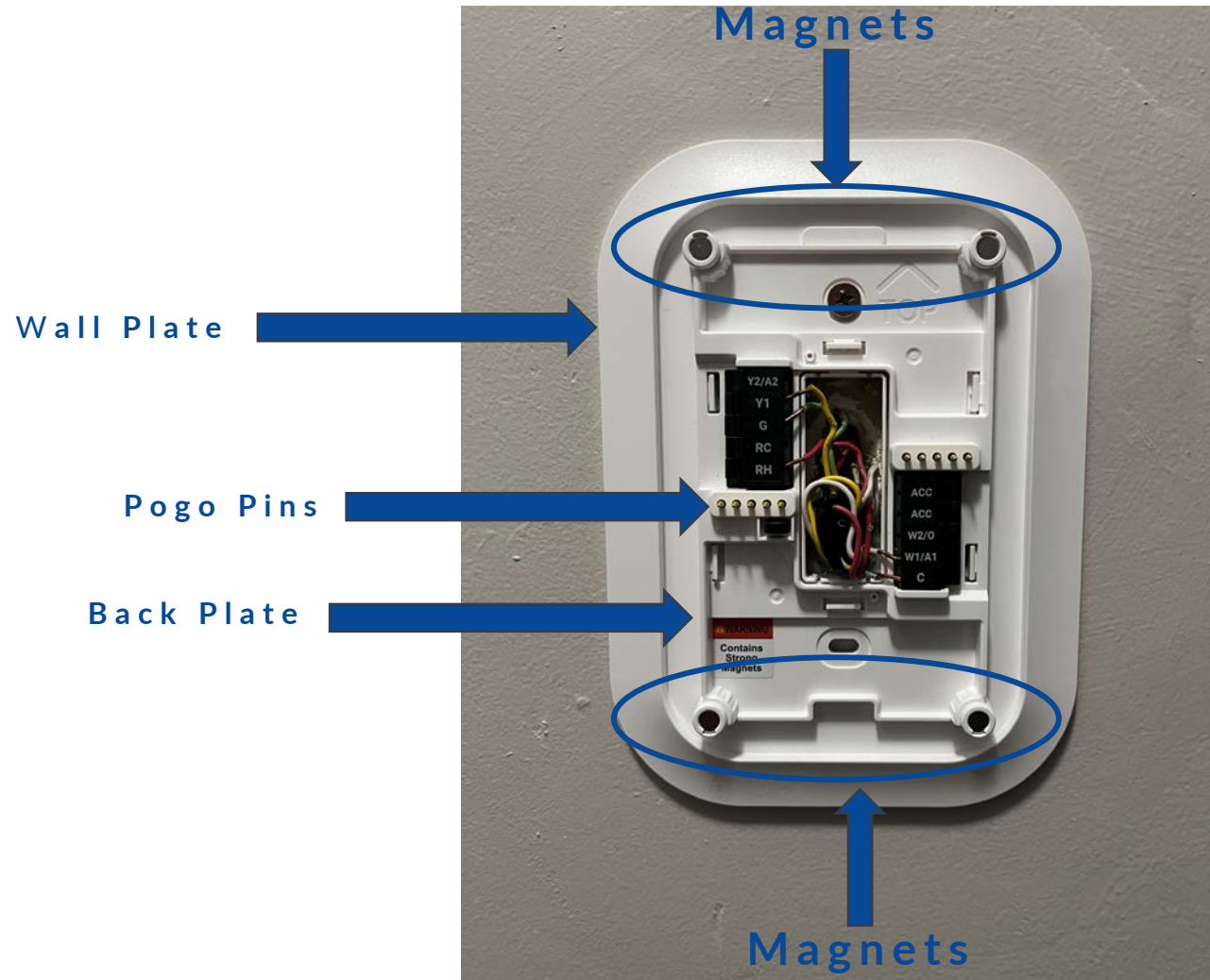
Simple BLE connection to thermostat via app
Full system commissioning via app
Test equipment via app
View thermostat data via app



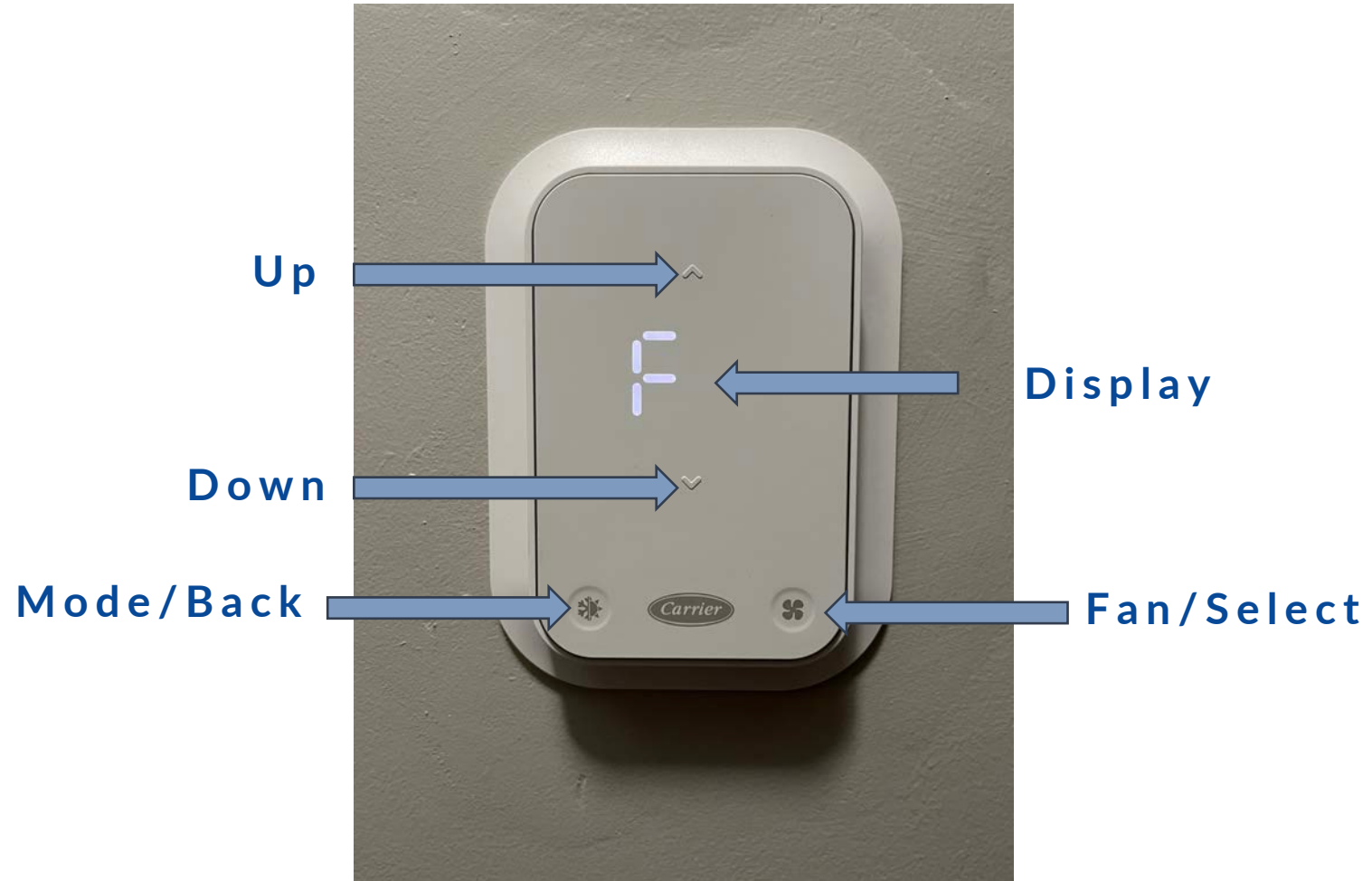
RC/RH jumper

INSTALLATION

- Must have C wire
- Thermostat connected to back plate by magnets
- Pogo pins to help line up the thermostat and maintain a good connection



MANUAL SETUP OF THERMOSTAT



MANUAL SETUP OF THERMOSTAT

- Beginning on page 16 of the installation instructions
- First, select temperature format (F or C)
- Then select the system type (L1, L2, L3)
- After the system type is selected, select the system sub-type (01, 02, 10, 11, 12, 20, 21, 22)

Manual Setup of Thermostat HVAC Configuration on the Thermostat

1. HVAC configuration can be done via thermostat display.
 - a. Use the Mode button to go back.
 - b. Use the Fan button to select.
 - c. Use Up and Down buttons to cycle through options.
2. Upon first power up display will show F for selecting temperature format.
 - a. Use Up and Down buttons to change between F and C.
 - b. Press Fan button to select format.
3. After selecting temperature format display will show L1. At this point you may begin selecting a HVAC system type. Use Up and Down arrows to cycle through different HVAC system and sub-system types. Use Fan button to select your HVAC type and sub-system type. Use Mode button to go back.
 - a. Supported HVAC system types are as follows:
 - i. **Standard (L1).**
Standard supports the following sub-system types:
 - 0 Heat 1 Cool (01)
 - 0 Heat 2 Cool (02)
 - 1 Heat 0 Cool (10)
 - If selected, you will be presented with additional choices to include Fan. Use Up and Down arrows to cycle through the two choices. Thermostat controls the fan is represented by F0. Furnace controls the fan is represented by F1. Use Fan button to select.
 - 2 Heat 0 Cool (20)
 - If selected, you will be presented with additional choices to include Fan. Use Up and Down arrows to cycle through the two choices. Thermostat controls the fan is represented by F0. Furnace controls the fan is represented by F1. Use Fan button to select.
 - i. **1 Heat 1 Cool (11)**
 - If selected, you will be presented with additional choices to include Fan. Use Up and Down arrows to cycle through the two choices. Thermostat controls the fan is represented by F0. Furnace controls the fan is represented by F1. Use Fan button to select.
 - i. **2 Heat 1 Cool (21)**
 - If selected, you will be presented with additional choices to include Fan. Use Up and Down arrows to cycle through the two choices. Thermostat controls the fan is represented by F0. Furnace controls the fan is represented by F1. Use Fan button to select.
 - i. **1 Heat 2 Cool (12)**
 - If selected, you will be presented with additional choices to include Fan. Use Up and Down arrows to cycle through the two choices. Thermostat controls the fan is represented by F0. Furnace controls the fan is represented by F1. Use Fan button to select.
 - i. **2 Heat 2 Cool (22)**
 - If selected, you will be presented with additional choices to include Fan. Use Up and Down arrows to cycle through the two choices. Thermostat controls the fan is represented by F0. Furnace controls the fan is represented by F1. Use Fan button to select.

MANUAL START-UP AND CHECKOUT

- Beginning on page 20, we can perform start-up and checkout manually
- First, hold down the Mode Key for (10) ten seconds
- Then, select which stage or mode to test (heat, auxiliary heat, cool)
- Test will display the appropriate mode icon and perimeter light for 20 minutes or until test has been stopped

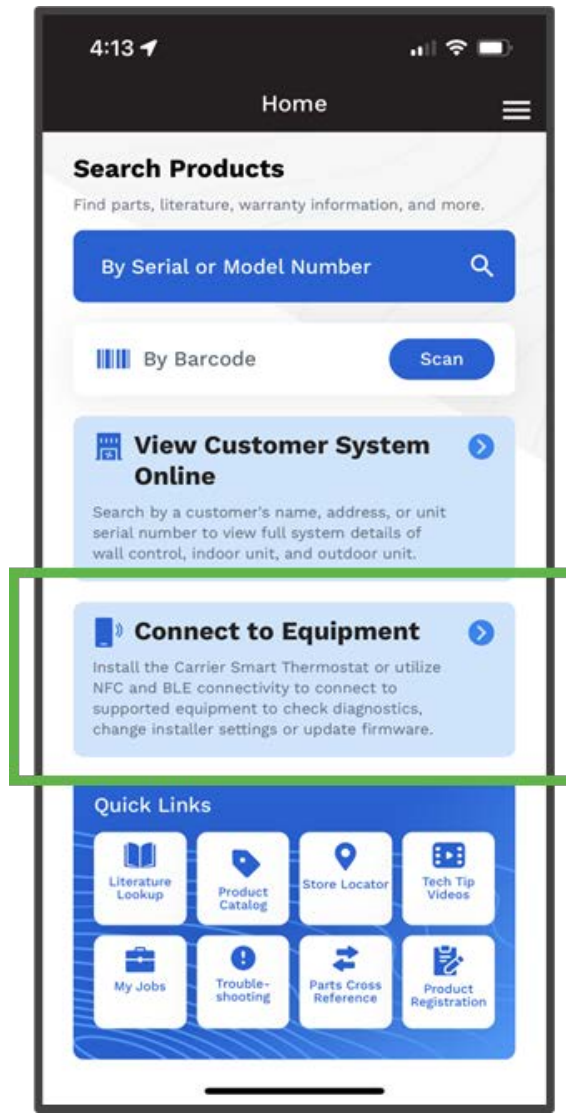
System Start-Up and Checkout

The thermostat is designed with a built-in installer test capability, Output Test Mode. This allows for easy operation of equipment without delays or setpoint adjustments to force heating or cooling. To use this feature you must first configure the thermostat HVAC type via Manual Setup of Thermostat HVAC Configuration on the thermostat or via the Carrier Service Technician app.

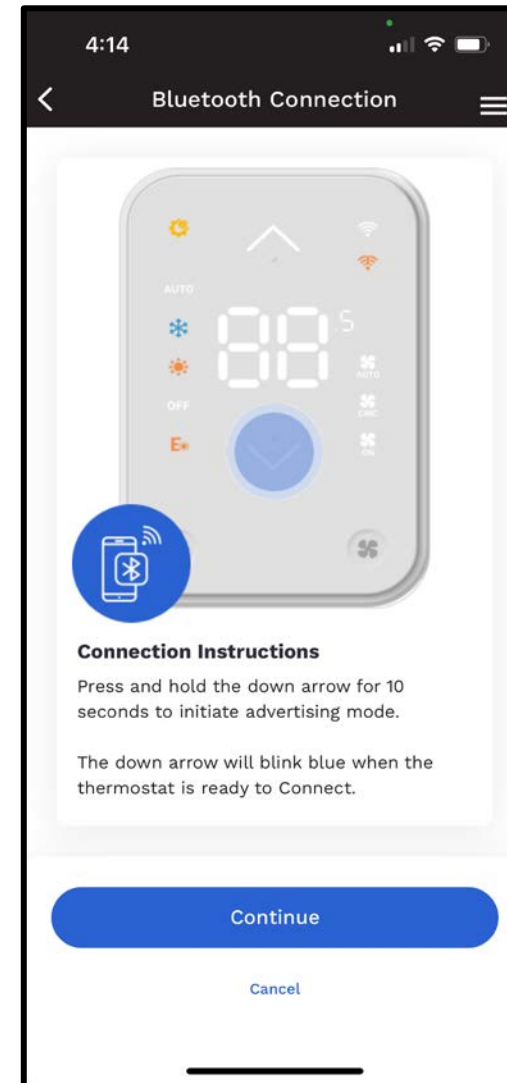
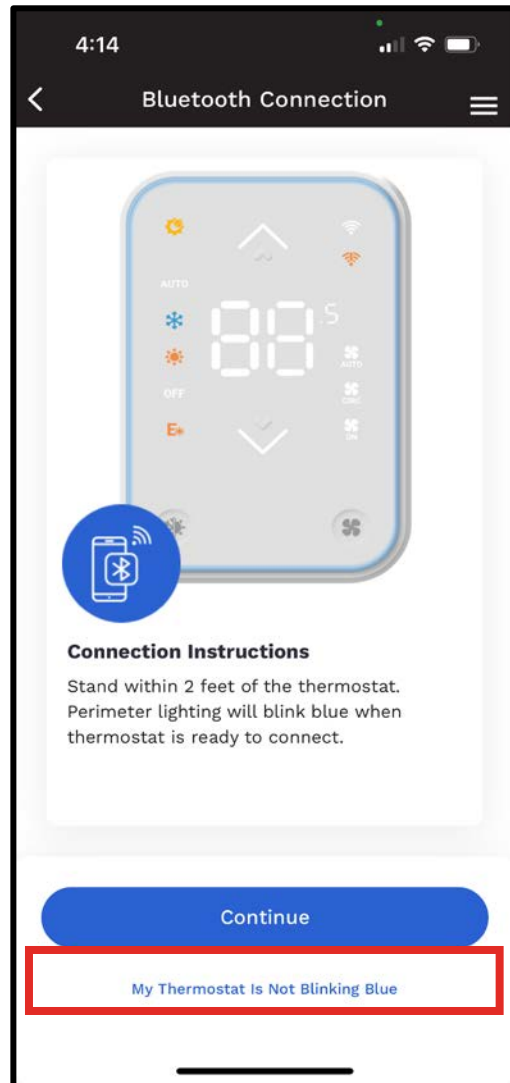
To enable and use installer Output Test Mode take the following steps: (If a test mode selection is not made within 10 seconds, the mode will timeout.)

1. Hold the Mode key for 10 seconds.
(Only works if system is configured.)
2. Once Output Test Mode is entered the thermostat will display S0.
3. When in the Output Test Mode:
 - a. Use the Mode button to go back.
 - b. Use the Fan button to select.
 - c. Use Up and Down buttons to cycle through options.
4. Stages or Modes available for test are dependent on the HVAC configuration which has been setup. Only those applicable to the selected HVAC type will be shown. The supported test types are as follows:
 - a. Test Heat Stage 1 (H1)
 - b. Test Heat Stage 2 (H2)
 - c. Test Auxiliary Heat Stage 1 (A1)
 - d. Test Auxiliary Heat Stage 2 (A2)
 - e. Test Cool Stage 1 (C1)
 - f. Test Cool Stage 2 (C2)
 - g. Stop Testing (S0)
5. Use the Up and Down arrows to cycle through the available types and press Fan to select the type you want to test.
6. After selection the test function will override temperature setpoint for 20min to test heat, cool or auxiliary heat. Test will end by selecting a new test (will start the new selected test), selecting stop testing, or 20 minute timeout. While testing the appropriate mode icon and perimeter lighting will blink until test has finished or is stopped.

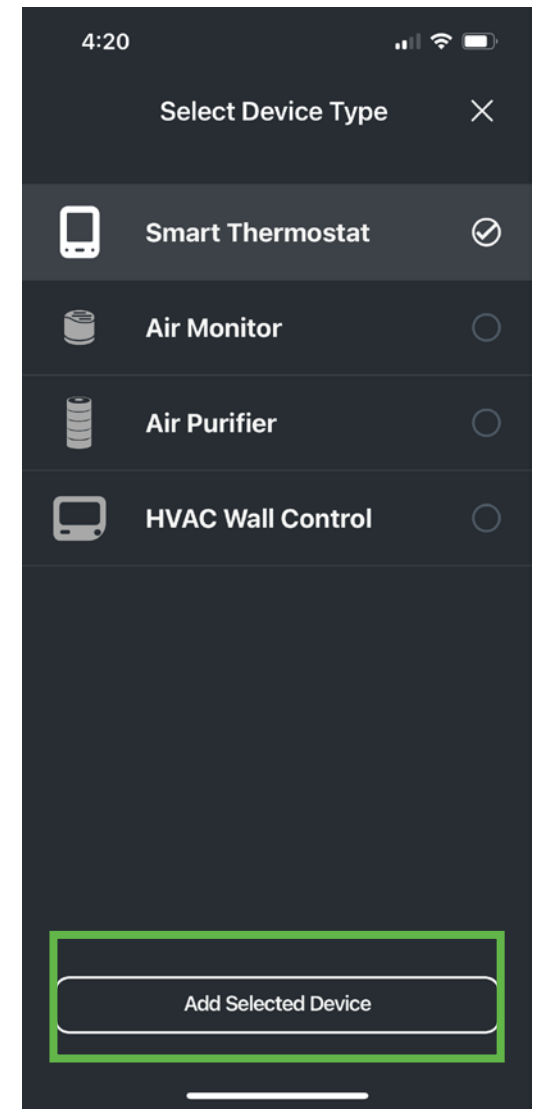
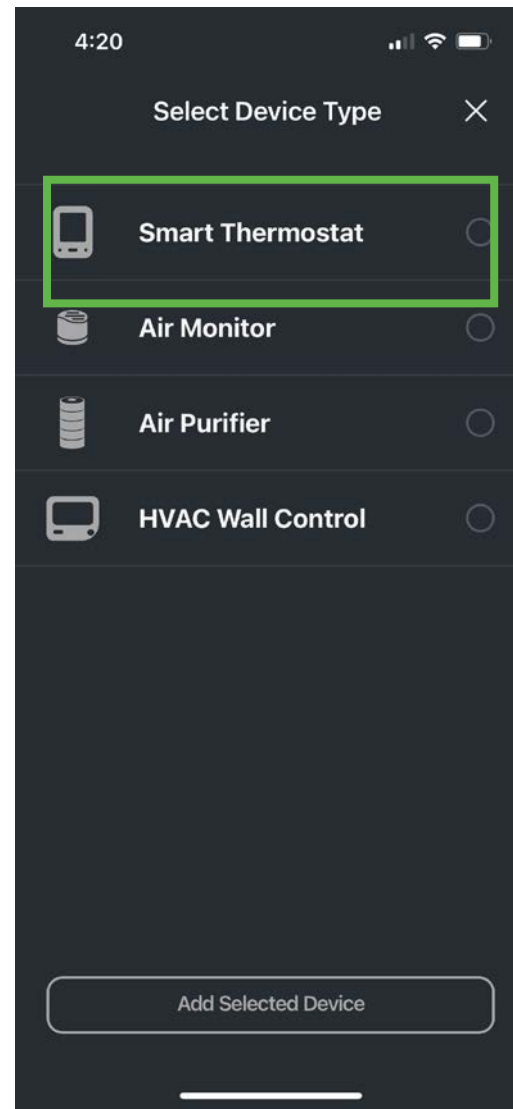
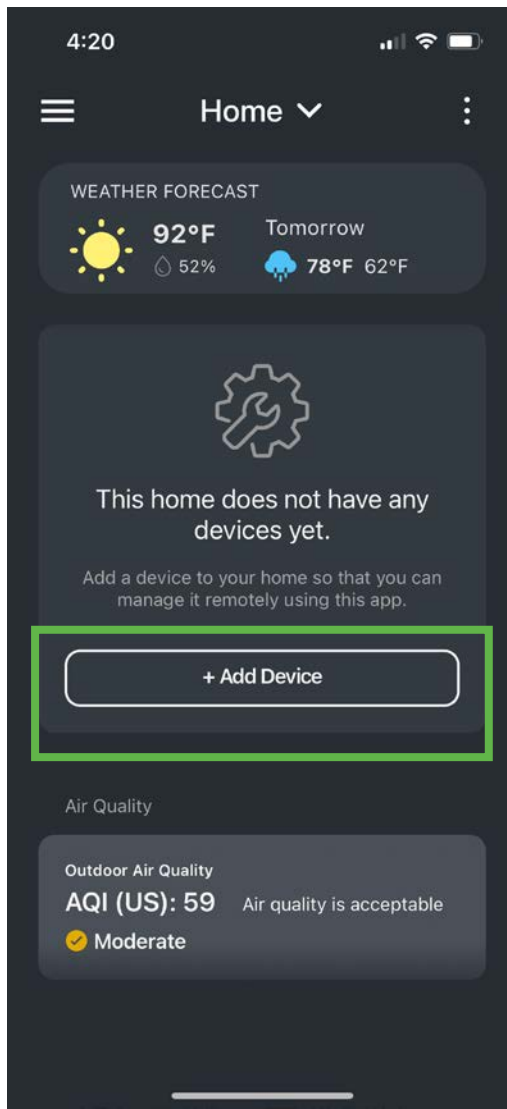
SERVICE TECH APP



CONNECTING VIA BLUETOOTH



CARRIER HOME APP (ADD A DEVICE)



Carrier/Bryant Smart Home
both are available in the app store or in Google
Play Store



OLD

OLD



NEW

NEW



NEW CARRIER/BRYANT HOME APP



Carrier SmartHome 4+

Carrier Corporation

Designed for iPad

★★★★★ 4.5 • 8 Ratings

Free



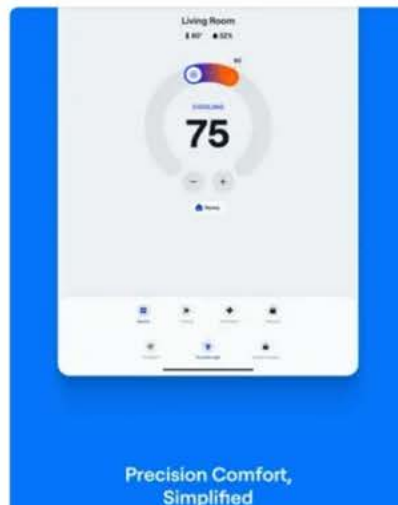
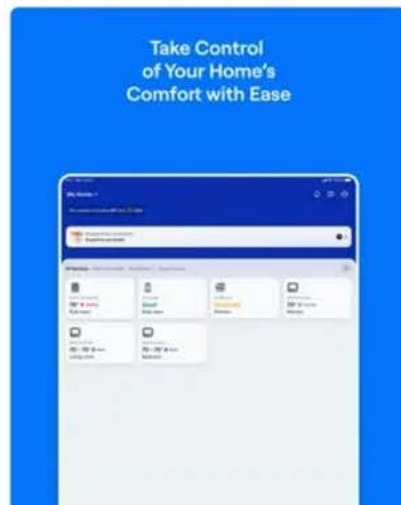
Bryant SmartHome 4+

Bryant Heating & Cooling

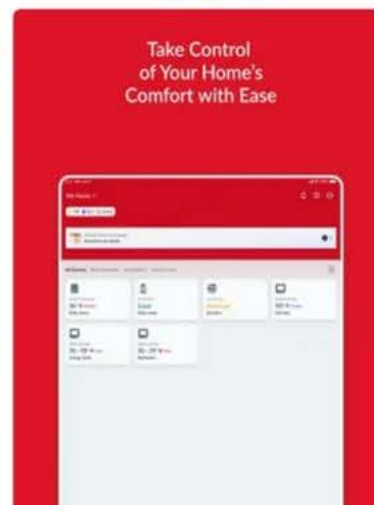
Designed for iPad

Free

Screenshots [iPad](#) [iPhone](#)



Screenshots [iPad](#) [iPhone](#)



NEW CARRIER/BRYANT HOME APP



ENTERED

Home

Profile

Help

Demo

Test C 0424W200011

60 - 80° Auto

ZONE 1

-B black return 1124W203285

50 - 77° Auto

ZONE 1

- B white 2419W103325

60 - 80° Auto

ZONE 1

- B white 2419W103325

68 - 76° Auto

ZONE 2

- B white 2419W103325

68 - 76° Auto

ZONE 3

- B white 2419W103325

68 - 76° Auto

ZONE 4

Test 5B 004701

68 - 76° Auto

ZONE 1

Test 5B 004701

68 - 76° Auto

ZONE 2

Schedule

<

Thursday

>

	12:00 AM	01:00 AM	02:00 AM	03:00 AM	04:00 AM	05:00 AM	06:00 AM	07:00 AM	08:00 AM	09:00 AM	10:00 AM	11:00 AM	12:00 PM	01:00 PM	02:00 PM
ZONE 1 Wall Controller							Home 65°-76°		Away						
ZONE 1 Wall Controller								Wake 68°-74°		Home					

The customer may be currently using:

www.myinfinitytouch.carrier.com

www.myevolutionconnex.bryant.com

If bookmarked; delete the above

And

Start a transition to:

<https://my.carrier.com>

<https://my.bryant.com>