

# TECHNICAL INFORMATION COMMUNICATION



## Quality and Continuous Improvement

**Number: TIC2022-0006**

**Date:** 6/17/2022

**Title:** Software 4.18 Release

**Product Category:** Residential Communicating Systems

### Products Affected:

Residential Communicating Systems –B touch controls only

#### Carrier

SYSTXCCITC01-B  
SYSTXCCWIC01-B  
SYSTXCCICF01-B  
SYSTXCCWIF01-B

#### Bryant

SYSTXBBECC01-B  
SYSTXBBWEC01-B  
SYSTXBBECF01-B  
SYSTBXBWEF01-B

### Situation

Software version 4.17 was released to Bryant Evolution controls on 6/6/22 and after reports of app issues it was discovered that the communication servers used by the app were overloaded and changes were not being accepted by the control. At this point the OTA was halted and a software patch or version 4.18 was released 6/11/22. The software 4.18 is a renamed version of 4.05 and allows for app functionality and correct display. Neither version of software has impacted system operation and we are working to ensure a future software release will not create a similar situation.

### Version 4.18

- Released to mitigate 4.17 issues
- Direct copy of 4.05 software

### Version 4.17

- Updated cloud connection interface to improve the response time between mobile app and wall control.
- Added QR code generation & display support for wall control models.

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- Added QR Code feature to access consumer site and release notes directly from mobile device.
- Updated UI Help text for Quiet Mode and Capacity Limiting screens
- Added a screen where the user can set the "trip point" when a notification is sent based on their temperature and humidity max and min points selection
- Added Low humidity alert fault code 191
- Added ability to reset equipment reminders via mobile app
- Updated Filter check logic to operate based on pressure monitor status
- Addressed the issue to report consistent Energy tracking information between wall control display and mobile app
- Updates to reflect the accurate Carrier® Infinity® System and Bryant® Evolution™ Extreme 24/26 ODU configuration when installed with FE4ANF005 model fan coil.
- Updated the logic to hide Geothermal electric heat lockout selection based on presence of OAT and display OAT message as applicable for Geothermal systems.

## Version 4.05

- Fully implemented 802.11n protocol. Resolved 802.11n connectivity issue introduced with version 3.94.
- Updated strategy to distribute additional air flow caused by two consecutive limit 33 faults by fully opening dampers for zones with a heating call and distributing excess airflow required to zones based on size of the zone. Display message on System Wall Control when furnace is in an altered strategy mode (126 – Active Heat Cycle Active).



- ULN 2 Stage Furnace, created a fault 34 results in a high heat cycle lockout for one heating cycle.
- 18/19VS (5 Stage Units) with FER furnace boards, continuous fan (low and medium) now operates at the minimum CFM if requested CFM is below minimum.
- Addressed airflow limited stage downs that occurred with older 2 stage ODUs and v3.94 system control software.

## Version 3.94 (July 2021 – OTA Bryant Only)

- Updated the blower motor fault type (Code 41) from System malfunction to System fault
- Fixed issue where system could operate in the wrong mode set by the user, resulting in possible over-conditioning.

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- Energy tracking feature is updated to display daily usage values accurately in respective columns
- System Wall Control restart allows the match configuration for the 2-TON Carrier® Infinity® System and Bryant® Evolution™ Extreme 24/26 with FANCOIL model FE4ANB005
- Addressed connectivity issues with 802.11n compatible routers
- Added capability for resetting reminders via cellphone app.
- Track the cycle and hours of the variable speed operations
- Displaying run time hours and Cycles for supported IDU and ODUs is implemented.
- Wall control not clearing the root cause diagnostics on a reset to factory defaults
- When the last 10 faults are specified to be factory reset, the last 10 faults and root cause faults recorded will be restored to factory defaults.
- Displaying run time hours and Cycles for Modulating furnace is implemented.
- Addressed the issue to report valid ODU model upon new system installation
- Low/High Temp and high humidity conditions should be configurable for the user
- Added feature to configure Low/High Temp and high/low humidity alerts.
- If a utility event with offsets is received, then UI notification will show the actual offsets by which setpoint is being changed.
- Missing parameter log files on cloud
- Updated the dehumidification airflow logic so that the dehumidification airflow matches the expected airflow.
- Wall Control software has been updated so that old faults having same fault code number will not be shown as active on UI Screen and equipment events packet
- Account registration with mobile app using QR Code on GUI
- Displays a QR code on the registration info screen. The QR code contains the S/N number, MAC address, and pin number delimited by commas. The code reflects the current screen values. Note: This feature requires the new mobile app, available soon.

## Changes specific to Series B Carrier® Infinity® System and Bryant® Evolution® Connex™ Control:

- Enhancement: PCM and VFD display - suggest showing "current" and "update"
- System Control software has been updated to display fault strings with both base code and expansion codes from PCM.
- Change the system control defrost behavior in response to PCM changes
- Removed the 5 minute post-defrost shutdown timer for ODU systems to match with an update in behavior on the PCM side.
- Support Stator Heat changes for ODU
- Added new CESR Number / File name combos to the lookup map to add support for new ODU class B software

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- The furnace shall shutoff as soon as ODU gets out of the defrost state without triggering the 2-minute cooldown timer.
- Add new VFDs for ODU OTA update
- Added support for the new VFD models with Stator Heat in system control equipment firmware update.
- OST and suction superheat for ODU are displayed for both AC and HP

## **Version 3.62 (December 2020)**

Fixed issue that prevents Wi-Fi connection to certain 802.11n-only routers, and a small subset of routers running in a “mixed mode” (802.11b/g/n). Solution is to enable the High Throughput Rates so the control can communicate via 802.11n.

***If you are not experiencing connectivity problems, then there is no need to install this update.***

## **Version 3.61 (October 2020)**

Reduced the Maximum Transmission Unit (MTU) to resolve connectivity issues with certain Internet Service Providers. ***If you are not experiencing connectivity problems, then there is no need to install this update.***

Instructions for the software download and updating the UI control can be found online in the Series B Control Version 3.61 Release Notes. Use the download link provided in the EULA document and then follow the instruction in the following pages to set up a TSTAT folder on an SD card and install the software on the UI control.

## **Version 3.60 (September 2020)**

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- Some users experienced 3.40 OTA update leading to the screen going blank; wall control then recovers to v3.00 upon forced reboot. *The primary cause has been corrected; but additional analysis is in progress to ensure this will not happen in the future.*
- False G-terminal Alerts could be triggered during learning process check if the system control reads the status inputs from furnace and fancoil before they have been set properly.
- Fix provided in system control; G-terminal status is updated only after reading the control inputs status event from indoor control boards.
- Revised the Capacity Limiting logic to allow for duty cycling the Carrier® Infinity® System and Bryant® Evolution™ Extreme 24/26 to emulate a capacity lower than the set minimum.
- Resolved issue where cooling demand took a long time (~30 minutes) to start.
- Improved Fault Code handling for Carrier® Infinity® System and Bryant® Evolution™ Extreme 24/26
  - Fault Codes with differing expansion codes are now considered to be different codes and show up as separate entries in the Last 10 Events screen.
  - Now storing fault description messages in permanent memory to prevent incorrect messages displayed after a wall control reset.
  - If an active 127-EQUIPMENT UPDATE FAILURE fault occurs, it will be cleared after the next successful firmware update.
  - Fixes for mismatched fault code and fault description combinations in the Last 10 Events screen.
  - System control software has been updated to handle empty fault strings on status screens and refrigerant charging screens.
- The defrost on Carrier® Infinity® System and Bryant® Evolution™ Extreme 24/26 can run longer than 15 mins and will not cause a system malfunction so that heat demand could run afterwards.
- Removed warning for LLV open on Charging screen.
- Help text for cycle counters and run times screens are added for both Air Conditioner and Heat Pump
- Utility Curtailment feature when active will get recorded in Last 10 events screen
- Refrigerant charging - pump down statuses were incorrectly displayed. Changes in pumpdown state typically take 5 seconds to reflect the actual state from the outdoor unit; in rapid state change from the Carrier® Infinity® System and Bryant® Evolution™ Extreme 24/26, It can take 10 seconds to reflect that state change.
- Fixes for range and toggle button related issues for capacity limiting screens have been made in the system control.
- Corrections to Capacity Limiting minimum demand calculations; now applies the minimum demand limit as a part of the capacity limiting feature as opposed to the previous behavior where a minimum would not be imposed.

## Version 3.40 (June 2020)

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- Fixed installation (system learning) issue in which the system control did not recognize the 2 Ton versions of the AC/HP equipment models, in combination with the FE4ANF002 fan coil: Corrected with Version 3.01 patch
- Energy Estimate calculation issues, causing. Energy estimates to appear to be much higher than expected.
- The system control could update the outdoor unit to the same software version if the SD card was not removed after a successful update.
  - Added a periodic check of the SD card contents to see if the files are still valid for update.
- Service Valve Subcool Value – changed to display accurate value.
- Operating status on the home screen is now aligned with the actual equipment operation.
- Blower RPM now shows actual RPM value when the IDU blower is operating.
- During system installation (learning), system control did not correctly discover the 24VNA624 ODU + FE4ANB005 fan coil combination.
- During checkout mode, received message "Info 104 - Low Indoor Temp Zone 2 Aux Heat" on HP's and AC's, cooling and heating mode. Message updated
- Discharge pressure is shown as "----" in AC Status/HP Status screen when the Discharge pressure is valid.
- When running heat demand for fan coil and Infinity / Extreme HP combination, the wall control was showing "HP + Electric Heat" even when fan coil is being used to fulfill the demand.
- System control was showing improper stages and empty values on the "Cycle Counters" and "Lifetime Hours" screens for a 1 Stage ULN furnace.
- Demand calculation not being sent to Infinity / Extreme HP/AC.
- Outside Air Temperature (OAT) value is always -12 F and not able to change in capacity limiting Heating screen.
- Update equipment run-time parameters in the checkout mode.

## **Version 3.01 (June 2020)**

Version 3.01 software includes the following updates to the Series B Carrier® Infinity® System and Bryant® Evolution® Connex™ Control:

- Fixed installation (system learning) issue in which the system control did not recognize the 2 Ton versions of the following AC/HP equipment models, in combination with the FE4ANF002 fan coil:

Major updates:

Fixed installation (system learning) issue in which the system control did not recognize the 2 Ton versions of the following AC/HP equipment models, in combination with the FE4ANF002 fan coil:

- Carrier® Infinity® and Bryant® Evolution™ Extreme 26 Air Conditioner
- Carrier® Infinity® and Bryant® Evolution™ Extreme 24 Heat Pump

## **Version 3.00 (April 2020)**

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Version 3.00 software includes the following updates to the Series B Carrier® Infinity® System and Bryant® Evolution® Connex™ Control:

- Supports new AC/HP equipment models:
  - Carrier® Infinity® System and Bryant® Evolution™ Extreme 26 Air Conditioner
  - Carrier® Infinity® System and Bryant® Evolution™ Extreme 24 Heat Pump
- Key features for new AC/HP equipment:
  - System Integration
  - Firmware Update of PCM & VFD via BING (OTA & SD Card)
  - Enhanced Fault Communication
  - Enhanced HP/AC Status Screen
  - Refrigerant Charging Update
  - Parameter Data Logging
- Improvements to Wi-Fi and connectivity long-term stability.
- Fixed various minor faults
  - Energy tracking and ENERGY STAR improvements
  - Minor GUI corrections and improvements
  - Fixed Geo HP integration configuration
- Multiple causes of Reboots found and corrected.

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