Letter: **ST-003-2018**

Date: January 29, 2018

To: All Unitary Products Branch Service, Sales, and Training Managers
                All Unitary Products Distribution Service, Sales, and Training Managers

Subject: RRS Economizer (2EE04709324) Commercial Accessory (Field Installed Only) –
                Infinite Boot Loop Issue

Product: York (Small Sunline), Luxaire (Small Optimum), Coleman (Small Apex), JCI (Series 5),
                3-6 Ton Packaged (FJ, Champion, Tempmaster) **w/ Simplicity Lite UCB**

Summary: Johnson Controls Unitary Products has received calls recently regarding the economizer module in the 2EE04709324 economizer with regards to the economizer module infinite countdown during the initial commissioning of the unit and or after a period of sustained operation. This occurrence would render the economizer inoperable and such cause the unit not to provide cooling to the space as needed.

Johnson Controls Milwaukee Engineering and Johnson Controls Unitary Products visited job sites with contractors to collect data and determine the root cause of the reported concern. The collected data was analyzed and used to perform additional testing in a lab environment to duplicate the reported concern and provide a sustainable repair option. The result of the data collected along with lab testing revealed the reported concern to be attributed to the timing of code events with a contributing factor of low voltage levels during transitory brownout events; it was also determined power cycling of the economizer module using the blower output would increase the frequency of the issue.

The conclusion of the data collection and lab testing resulted in a new firmware version 1.0.0.0142 being developed which would harden the controller resulting in a more stable operation of the economizer module during brownout conditions, thus greatly reducing the occurrence of the issue. It was also determined a need to redesign economizer module wiring harness to provide a constant power source to the economizer module and use the blower output to signal the module to occupied status.

Production of the 2EE04709324 economizer with the new firmware and wiring harness started the first week of December 2017. It should be noted RRS has produced over 3,000 units prior to this change and the reports received by the Technical Service Team in Norman regarding this concern were higher than anticipated not all units produced have exhibited this concern.

If you have a customer who is reporting the infinite boot loop issue the economizer module and the wiring harness should be replaced, additionally the new firmware should also be acquired and taken to the job site in the event the replacement economizer module firmware is not current. It will be necessary to reinstall the factory provided jumper plug in the return air section for the UCB to provide mechanical cooling until replacement parts can be obtained. Upon completion replacing the economizer module and harness the firmware of the economizer module should be checked to confirm the new build of 1.0.0.0142 if the firmware is not build 142 it should be updated at this time.

Please see below for a current list of part numbers needed to resolve this issue.

RRS Economizer Module Basic
S1-03103645000

CP1 Wiring Harness
S1-02550535000

Firmware 1.0.0.0142
Location = UPGNET > UST and Technical services Center > Tech Services Software Updates

Instructions to check firmware version

1. Scroll down to Update using (V) button
2. Press (♩) Enter
3. Press (♩) Enter on View Version
4. Note current firmware version
5. If firmware version is not build 142 follow directions below to update the firmware

Instructions to Update firmware

1. Firmware Version 1.0.0.0142.ECOUSB.PKG should be saved to USB drive (format FAT 32 and no larger than 8 gig)
2. Install USB drive on economizer module
3. Press Enter Button (♩)
4. Use (V) arrow to scroll to Update
5. Press Enter button (♩)
6. Use (V) button to scroll to Load Firmware
7. Press Enter Button (♩)
8. Display should view Firmware Version 1.0.0.0142.ECOUSB.PKG
9. Press Enter Button (♩)
10. Display should view scrolling firmware version and CONFIRM
11. Press Enter Button (♩)
12. Display should view FW Update: Wait and change as update progresses
13. Upon completion of the update controller will Reboot (Display may go blank)
14. The economizer module can now be configured with desired settings

NOTE: The economizer module will need to be powered with 24vac to perform tasks

If you have any questions regarding this letter, please feel free to contact me at your convenience.

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