



INSTALL CONFIDENCE

Johnson Controls Unitary Products
5005 York Drive
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Date: November 19, 2015

YS-022-15

To: All York Service Managers
All York Distribution Service Managers
All Regional Managers

Subject: Blower Initiation Failure in NON-Heat Pump Electric Heat Applications in Packaged Unitary Commercial Models, EXCLUDING 15-25 ton, and 108kw Millennium.

Affected Units: This failure may occur in units equipped with the SSE control board noted by model generation as listed below:

- 3-12.5 ton CDR-Prestige---gen 2
- 3-6 ton SMALL Sunline---gen4 (must verify presence of SSE control)
- 3-12.5 ton Predator---gen 7
- 25-40 ton Millennium---gen 5 (excluding 108 KW only)

A limited number of field reports have been received involving the SSE control in affected JCI/UPG models that include electric heat where heating hard lock-outs have been experienced. Heat pump models are NOT affected. The failure mode results from damage to the control board on the MV input which then fails to initiate blower function during an electric heat call. This results in a limit trip event from the heat kit limit device which terminates the heat output and brings on the blower. Once the limit resets the heat call may re-initiate. A hard lockout will occur if the control sees 3 limit trips within 2 hours. This will result in loss of all heating function until the power or heat call is cycled.

Investigation into these reports revealed that a voltage spike generated at the end of a heating cycle can create a pulse thru the MV terminal on the board causing premature failure of components on the SSE control board. The resulting damage occurs to electronic components associated to the MV input of the SSE control board, rendering this circuit path as "open". Reported failures are random and only involve the subject product families listed which were built with factory installed electric heat or field installed electric heat accessory kits.

Failure of the MV terminal on the SSE control board will require replacement of the SSE control board and upload of the control software version 3.0.0.1124 at the time the new control board is installed. See attached instructions for proper control replacement and software update sequence. It is important that the re-flash is conducted at the unit with the new board completely installed.

Notes:

- 1) Units previously installed which have not experienced the failure mode or units planned for installation which include an electric heat application will require re-flash of the control board to the newer control software version 3.0.0.1124.
- 2) Additional parameter configurations and wire removal from the MV terminal are required to protect the control board as outlined in the instructions.

Production of the SSE control with software version 3.0.0.1072 will continue through December, 2015. Phase in of SSE control boards with updated software version will occur at that time and will be communicated when implemented.

As mentioned previously, a software revision instruction has been developed as an attachment to this letter, which explains the field re-flash and additional configuration procedures. The software version update can be found and downloaded from UPGNET. This is a password protected website. Dealers may be granted access by contacting their respective distributor. After accessing UPGNET, navigate to the "UST and Technical Services" tab. Select "Tech Services Software Updates" where you will find the version 3.0.0.1124secusb.pkg file. This file can be downloaded to a clean flash drive for use with the re-flash instructions. This file is NOT to be used in a "zipped" configuration. For those technicians who do not have access to UPGNET, the distributor can download and email the file.

Distributors should identify their equipment sales that may have included electric heat applications in units equipped with the SSE control board. In these specific application instances, it is recommended that each of these sites/units be visited to implement the advised software upgrade, along with the required steps noted in the attached instruction to this YS-Letter.

Control board failures due this failure mode will be covered under the terms of the standard limited warranty. A 1 hour labor allowance will be provided.

Proactive upgrade procedures to *installed* equipment will be provided with one (1) hours travel allowance plus an additional 30 minute labor allowance per unit to implement the upgrade in each unit.

Proactive upgrades for *new* installations will be provided with a 30 minute labor allowance per unit to implement the upgrade in each unit at start-up.

Please note this YS bulletin number on each claim submitted to obtain the referenced labor allowance as noted. File all warranty claims in accordance with the published warranty policy.

We apologize for the inconvenience involved, please advise any questions or comments to Johnson Controls Unitary Products Technical services at 877-754-7378.

Bruce Porter
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Johnson Controls Unitary Products

Hank Edmunds
Director Commercial Engineering
Johnson Controls Unitary Products

Attachment: Field Re-flash Instructions for Electric Heat Equipped Models with SSE Control.

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**Procedure to re-flash SSE control for NON-Heat Pump Electric Heat Applications.
(15-25 ton models, 108kw Millennium, NOT applicable)**

- 1) TURN POWER OFF TO THE UNIT Follow all personal safety procedures**
- 2) Physically REMOVE the WIRE From the “MV” P3 Plug at the SSE Control**
 - a. Use a diagonal cutter and clip the wire from both ends, at the P3 plug and where it mates with the H1 wire.
 - b. Remove MV wire entirely from the unit. Use care not to damage other wires.
 - c. Replace zip ties that may have been cut during this process.
- 3) RESTORE POWER TO THE UNIT Follow all personal safety procedures**
- 4) Using a pre-loaded flash drive holding the SSE version 3.0.0.1124.secusb.pkg
Insert flash drive into the SSE board USB Port**
- 5) Create a Backup File For Later Use**
 - a. Navigate to the “>Update” field of the SSE.
 - b. Push the joystick down until the display is showing: >**Backup**
 - c. Push the "ENTER" button. Wait until the top line says "**BKP: OK**" and the second line says **100%**
 - d. Push the Cancel button. The display should now show: >**Update**
- 6) Proceed to Load 3.0.0.1124 Firmware**
 - a. Push the "ENTER" button. The display should now show: >**View Version**
 - b. Push the joystick down. The first line should now display: >**LoadFirm**
 - c. Push the "ENTER" button. The top line should display: >**3.0.0.1124.secusb.pkg**,
If not, push the joystick down (or up) so the arrow (>) points to the appropriate file

d. Push the "ENTER" button. Push "ENTER" again to Confirm. The UCB and economizer will now be reprogrammed with the selected software. Wait until everything is complete, and the control has performed a Reboot. (The upgrade process may take 15-25 minutes, be patient)

Note: If the software update fails, cycle power to the unit and perform upgrade again

7) Proceed to Restore Backup file

a. Navigate to the ">Update" field of the SSE

b. Push the "ENTER" button. The first line should now display: >**View Version**

c. Push the joystick down until the display is showing: >**Restore**

d. Push the "ENTER" button

e. Push the joystick down until the display line starts with: >**RTUxxxx and ends with .csv (the file name may list the unit serial number)**

f. Push the "ENTER" button. Push "ENTER" again to confirm

g. The UCB will now read back the stored setup. When this step is complete, the control will Re-boot.

Version file 3.0.0.1124.secusb.pkg is intended for the purpose of enhancing reliability in JCI/UPG packaged equipment with ELECTRIC heat. This file should not be used as configured in any other models (NOT FOR GAS HEAT MODELS)

Task is Complete.

Should you have any questions about this procedure, contact JCI-UP Technical Services. 877-874-7378