

SBC-STAT3 Rebooting

Issue Date: December 4, 2017

Product(s): SBC-STAT3, NB-ASCe, NB-VAV Series

Summary

NB-ASCe and NB-VAV series controllers manufactured between January 2017 – October 2017 (affected date codes 0117-4217) and fitted with a ST Micro LM317 SOIC voltage regulator may cause the SBC-STAT3 to continually reboot. The frequency of rebooting worsens as the AC supply voltage to the controller is above 26VAC.

Background

Issue and Observation: The affected controllers within the identified date codes (**0117-4217**) when deployed with a SBC-STAT may, under certain overvoltage conditions, cause the SBC-STAT to continually restart. **Controllers outside the specified date codes are not impacted and require no action.**

Findings: On affected controllers, when the control voltage (typically a 24VAC power control transformer) powering the controller exceeds the recommended tolerance (22VAC to 26VAC) as specified by American Auto-Matrix in the controller User Manual, the data transmission of the SBC-STAT as read and recorded by the controller is corrupt and eventually causes the controller to reset the SBC-STAT bus. Visually, the SBC-STAT values will disappear, and then reappear when the SBC-STAT has rebooted.

To rectify affected installed controllers, American Auto-Matrix recommends the use of a 1kohm +/-5% resistor connected across the SBC-STAT terminals (SSB(1) and COM(2)) at the affected controller. Alternatively, the same resistor with an extension wire can be installed across the terminals (R and C) at the SBC-STAT itself. Either one, **but not both**, of these options will rectify the issue.

Customer Action

For any affected controllers, that you may have in stock or inventory that are still newly boxed in original packaging, please contact Inside Sales for a free warranty exchange. All shipping charges will be borne by American Auto-Matrix. For units that have already been installed and are affected as per this bulletin, American Auto-Matrix recommends the installation of a 1k ohm +/- 5% resistor across the SBC-STAT bus terminals of the affected controller as per Figure 1.

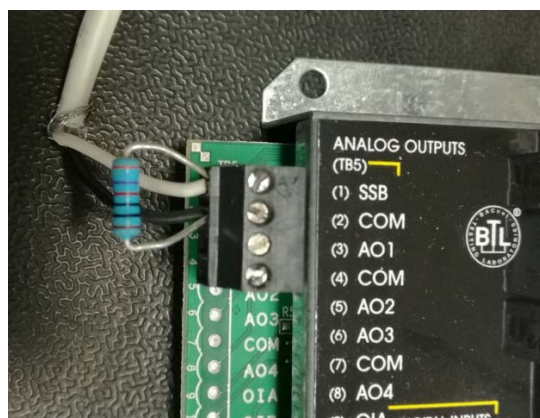


Figure 1: 1k ohm resistor installed at NB controller

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In cases where the controller is difficult to access, or the SBC-STAT is locally available, the 1k ohm resistor may be installed across the bus terminals as depicted in Figure 2. Because the terminals of the SBC-STAT are far apart, and the resistor will require a wire lead modification to reach the terminals. American Auto-Matrix has assembled an extension lead resistor for easy installation (KIT-1RK). When fitting the assembly to the Stat, it should be positioned as in the photo to keep the resistor body away from the PCB sensor board as much as possible.



Figure 2: KIT-1RK installed at SBC-STAT

American Auto-Matrix will ship free of charge to its customers the 1k ohm resistor or extended lead 1k ohm resistor (KIT-1RK) upon request. Please contact [Inside Sales \(insidesales@aamatrix.com\)](mailto:insidesales@aamatrix.com) or (724) 733-0397.