

SERVICE BULLETIN



Carrier Corporation

North American Operations

Title: Benshaw PIC II software problems

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Models Affected: 19XR chillers with PIC II controls
and Benshaw solid state starter

Purpose:

To inform the field of software programming errors in Benshaw REDISTART MICRO™ solid state motor starters with PIC II controls (see Service Bulletin C9831) shipped from July 1998 to July 1999.

Information:

Recent field failures have uncovered software programming errors in the PIC II Benshaw unit mounted and free standing motor starters (Benshaw EPROM part number 810001-01-05 located on the BIPCM1CPU Computer Card). Two faults may occur. One, when the remote contact option is enabled (OPTIONS screen) and the remote contact is closed the Benshaw starter may shut down randomly. No alarms are reported and soon after the 15-minute start-to-start timer in the Carrier PIC II controls expires the chiller will restart. The second fault is the Carrier PIC II controls may record a PROTECTIVE LIMIT: SPARE SAFETY DEVICE alarm (state 237) and shut down. This fault may occur when the factory installed wire jumper is present on terminals J2 1&2 on the BIPCCPIO Input/Output card in the Benshaw starter. This alarm will require a manual reset at the CVC (Chiller Visual Controller).

Both of these fault conditions are caused by the Benshaw software incorrectly reporting the status of the inputs on the Input/Output card (terminal J2) when the Carrier PIC II controls call for an update (through communications from the CVC to the REDISTART MICRO™ controls). These inputs are discrete inputs (either open or closed) and an open status is incorrectly reported by Benshaw when the contacts may actually be closed.

Solution:

Corrections to software programming errors described are currently under development. After the corrections have been thoroughly tested Benshaw will ship the corrected software (EPROM part number 810001-01-08) to service offices that have the subject starters. Contact CSS Service Engineering if problems are experienced before the revised software is received. Preliminary software is available for problem jobs.