BULLETIN

Carrier Corporation

Carrier
A United Technologies Company

North American Operations

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Title:	PIC-I STARTER DIAGNOSTIC ISSUE				
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Author:	STEPHEN BAYES				
Reviewed by:	ALAN M. JOHNSON				
Dept:	CSS Service Engineering				

Models Affected: CAC: 19XL, 19EX, or 19XR centrifugal chillers with PIC I controls and SMM's
BDP:

Purpose:
The purpose of this document is to alert field service engineers of a PIC-I issue. Awareness of the following problem can save significant troubleshooting time.

Application:
Symptoms: Unit may be found with compressor shut down while LID indicates that unit it still running, with 0 amps, and no alarm declared. STATUS02 screen indicates that "Pressure Trip Contact" is OPEN. The reason for the compressor having shut down may be motor overload, 1M or 2M contactor failure, or (for 19EX) open starter fault contacts. If any of these contacts is manually reset within the starter, the compressor will restart immediately.

Indication: The connection between the 1CR circuit (from a point between the high pressure cutout switch and starter fault contacts) and SMM terminal 11 is broken or missing.

Notes: With the broken or missing connection to terminal 11, the unit will go through startup and run (because the 1CR circuit is in fact complete), although "Pressure Trip Contact" is erroneously interpreted as OPEN. This terminal 11 wiring fault is NOT indicated or detected by a software alarm or alert. While the effect of this is that the system fails to inform the user of the fault causing the shutdown, system protection is maintained.

If the STOP key is subsequently pressed on the LID, it will proceed through its shutdown routine. If, then, a normal restart is called for without the motor overload, starter fault, or starter contactor fault having been reset or fixed, the startup will be terminated, usually by a "Starter Fault" alarm.

Action:
If the above situation is observed, find the break in, and restore continuity through, the connection between the 1CR circuit and SMM terminal 11. Secondly, find and resolve the root cause behind the motor overload, 1M or 2M contactor failure, or open starter fault contacts.

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