



# SERVICE AND APPLICATION NOTES

C-14-02

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## Outdoor Control Random Alarm Code 431

### AFFECTED MODELS:

XP25 and XC25 with outdoor control 103686-01 (Catalog Number 98W64), software versions 1.2 and 1.6.

### WARNING

Improper installation, adjustment, alteration, service or maintenance can cause personal injury, loss of life, or damage to property.

Installation and service must be performed by a licensed professional installer (or equivalent) or a service agency.

### ISSUES

1. The code may randomly occur on the XP25 when the reversing valve is immediately de-energized when the heat pump is coming out of defrost. (Issue occurs in # 98W64 – Part # 103686-01 with software version 1.2 or 1.6).
2. Alarm Code 431 may also occur on the XC25 or XP25 when 24VAC power is **rapidly cycled** to the contactor coil or the 24VAC main power.



### FIELD ACTION

1. To prevent the XP25 moderate nuisance alarm code, Lennox engineering has implemented a software change to the outdoor control. A new four second de-energizing delay to the reversing valve was added when coming out of defrost. Order outdoor control 103686-06 (Catalog Number 14G30) which includes this new function.
2. To prevent this moderate nuisance alarm code 431 on both the XP25 and XC25 models, always wait a minimum of 2 to 5 seconds between removing and reapplying 24VAC power to the contactor coil or removing and reapplying 240VAC power to the outdoor unit.

Alert Code	Priority	Alert Text	Steps to Clear
431	Moderate / Critical	(Outdoor Unit) The inverter has detected a PFC circuit over-current condition.	<p>Error occurs when PFC detects a over current condition of 100A peak. If condition is detected, outdoor unit will stop (compressor and fan). Anti-short cycle is initiated. If condition occurs 10 times within an hour, system will lockout. To clear, wait a minimum of 2 to 5 seconds between removing and reapplying 24VAC power to the contactor coil or removing and reapplying 240VAC power to the outdoor unit.</p> <p>Possible causes are power interruption, brownout, poor electrical connection or loose inverter input wire.</p>