



# 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> |