



Ducted Systems Technical Services Service Letter

Letter: **YS-005-2019**

Date: April 17, 2019

To: Ducted Systems (Factory Direct) S1 HVAC Branch Service, Sales, Warranty Managers
Ducted Systems (UPG/Applied) Distribution Service, Sales, Warranty Managers

Subject: **Direct Spark Ignition (DSI) Control – Indoor Blower Motor Operation**

Product: PCG6, PHG6 - **2 stage** gas model LX series residential package units

Effective: **April 17, 2019**

Expires: **April 17, 2021**

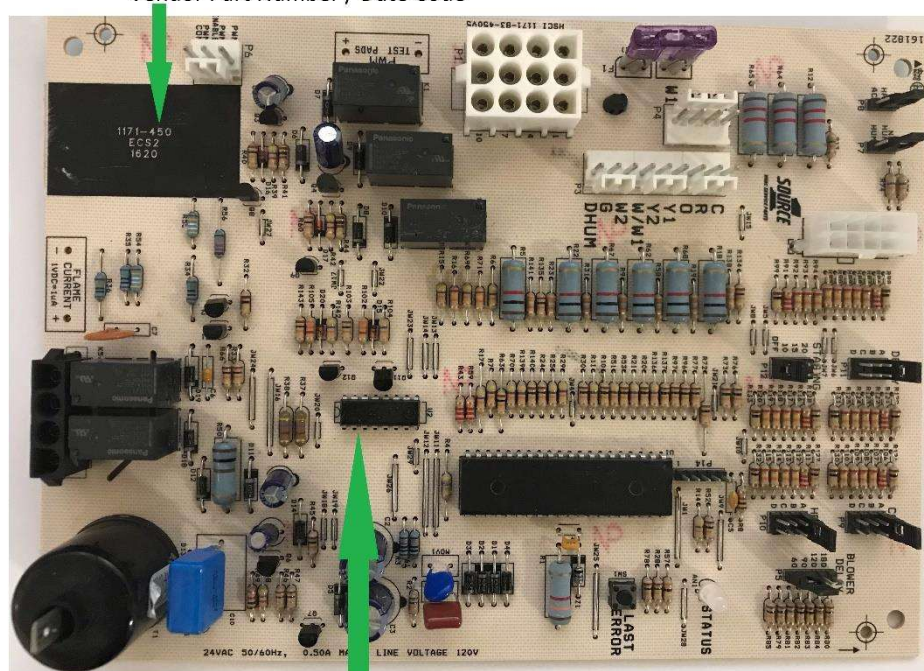
Summary: **This letter provides explanation and resolution for possible erratic indoor blower motor operation during HIGH HEAT (W2) mode.**

Multi-stage LX series gas model 16 SEER package units contain an “enhanced ECM” indoor blower motor. The blower motor is controlled via a Pulse Width Modulation (PWM) signal generated by the Direct Spark Ignition (DSI) control board.

We have received a few complaints of erratic indoor blower motor operation on recently installed multi-stage PCG6 model package units. During HIGH heat (W2) operation, the PWM signal sent from the DSI control board to the blower motor can fluctuate causing the indoor blower motor to ramp up and down.

An image of the DSI control board is shown below.

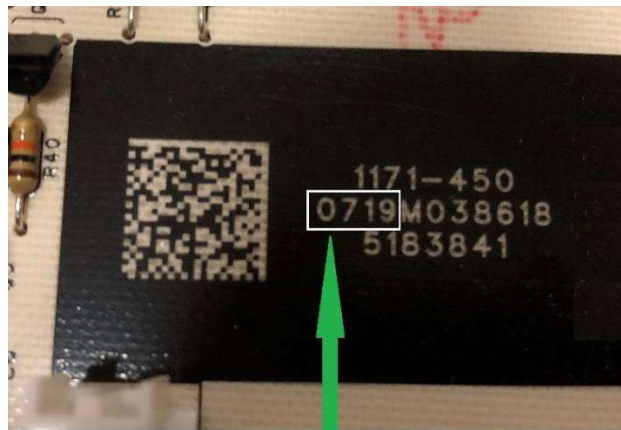
Vendor Part Number / Date Code



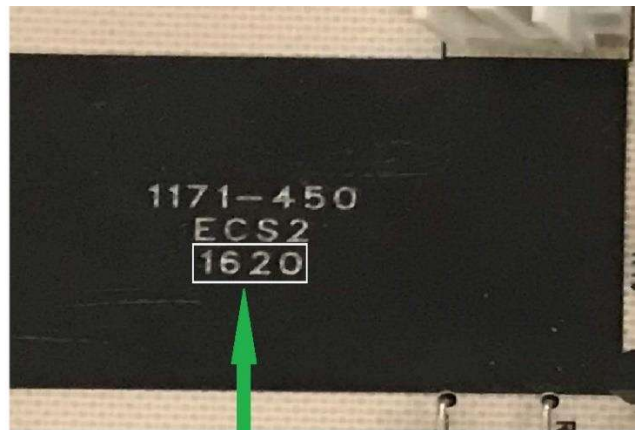
PMW Signal Micro-processor

It was discovered that the DSI control board vendor used an alternate PWM micro-processor component supplier without our testing or approval. The original control design used a component manufactured by STMicroelectronics. If the control board contains the alternate PWM micro-processor, erratic indoor blower motor operation **may** occur during HIGH heat (W2) operation. Suspect control boards were manufactured between December 2017 and March 2019. Controls within this date range may contain either PWM micro-processor. Due to this fact, a DSI control manufactured within the date codes listed above does **not** mean it is defective. The component manufacturer is marked on the face of the PWM micro-processor. PWM micro-processors manufactured by STMicroelectronics have “ST.” printed on the face of the component and should function as designed. The marking is so small however, a magnifying lens is required to read it.

DSI Control boards have been manufactured at two different facilities. Depending on which facility the board was manufactured at, the date code nomenclature is different. Below is an image of both versions of date code nomenclature.



Date Code WEEK / YEAR



Date Code YEAR / WEEK

Suspect DSI control board date codes will read 4817 through 1019 or 1748 through 1910 depending on date code nomenclature.

Suspect unit serial numbers are W1N7 – W1C9 for 208-230 VAC single and three phase models. 460VAC 3 phase models **ARE NOT** included as they utilize a different DSI control board.

On 03/05/19 all suspect model numbers in our distribution center were placed on quality hold for inspection. All suspect control boards in our factory inventory were returned to the control board vendor. All Source One inventory has been inspected and approved as correct. For equipment repair, order control board only using part number **S1-03103514000**. If your spare parts inventory has any S1-33103514000 control board kits in stock, they should be inspected using the same date code process shown above. If you find a suspect control board kit, contact S1 for a replacement. S1 kits shipped AFTER 03/26/19 are confirmed to be good.

This service letter will allow one hour labor to be paid for replacement of the DSI control board if the equipment experiences the issue described above. This letter is to be used on a **fix-on-fail** basis only. If you have any questions on this feel free to call Ducted Systems Residential Distributor Technical Services at 1-877-874-7378 and speak with a technical support representative.


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