



***Ducted Systems
Technical Services
Service Letter***

Letter: **YS-004-2019**

Date: April 16, 2019

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

Subject: **16 SEER Heat Pump MOC (Fan Drive) Control Board Failure**

Product: **Residential YHM, CH16 & TH16 16 SEER 3 ton Heat Pump models**

Effective: **April 16, 2019** Expires: **April 16, 2021**

Summary: **This service letter provides information regarding the IGBT failures that have been reported on the MOC (fan drive) control board of the inverter drives on the 16 SEER 3 ton heat pump models listed above.**

This service letter serves to announce the availability of the new two-sided MOC (fan drive) control board that is now available as a separate repair part in lieu of replacing the entire inverter drive. The IGBT (isolated gate bi-polar transistor) failure mechanism on the existing control board has been determined from field returned drives and replicated through internal testing. Based upon this analysis and testing we are changing the design of the MOC fan drive board to the two-sided style that is used on the 4 and 5 ton models. To date, we have not received any reports a similar failure on the two-sided MOC fan drive control boards used on the 4 and 5 ton models.

While working with the vendor to set this new MOC control board up as a separate repair part to address field failures on the 3 ton model, we also had them set up the 2, 4 and 5 ton MOC boards as separate repair parts also. The part numbers for the respective MOC control boards by tonnage are listed below.

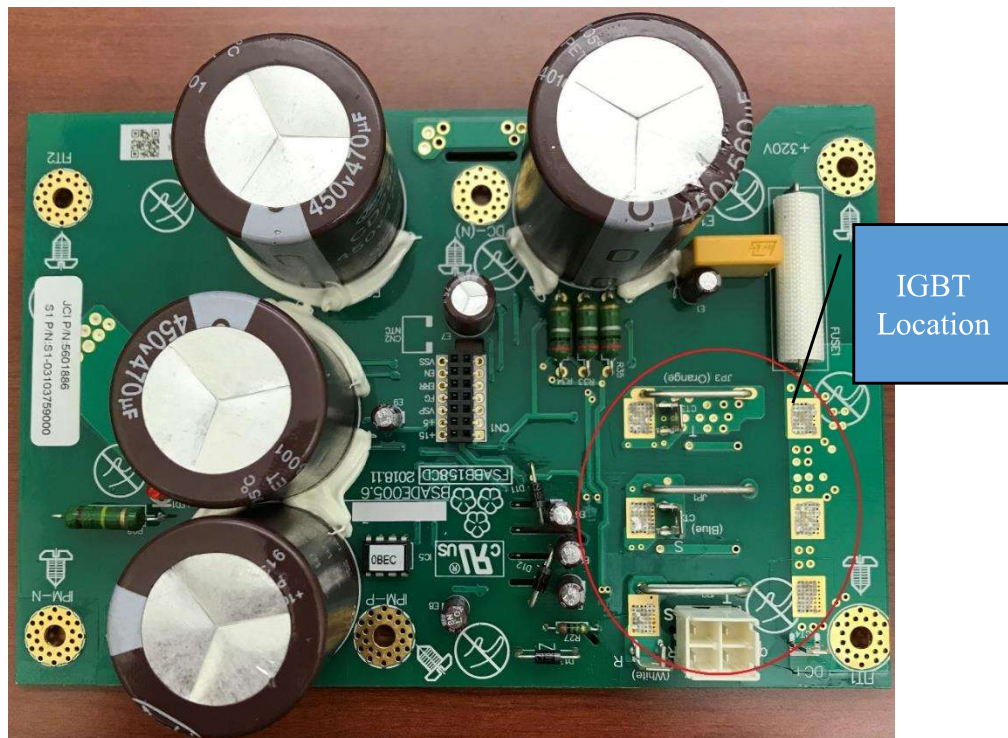
2 Ton Model	S1-33103758000
3 Ton Model	S1-33103759000
4 Ton Model	S1-33103760000
5 Ton Model	S1-33103761000

We will publish separate announcements regarding reworking current units in Wichita inventory under separate cover. This letter is only intended to provide an update on the change made to the MOC (fan drive) control board.

To help identify the new double sided board from the original single sided board, see photos below.



Original Single Sided Board



New Double Sided Board

The pictures above show the location of the IGBT's which are actually located on the back side of the control board, but the physical difference between the two boards is visible from the front. Note the elimination of the slots through the control board as well as the difference in the mounting pads for the IGBT's.

Field Installed Units

For any 3 ton models listed above that are installed in the field and produced prior to April 2019, this service letter provides a one and a half hour labor allowance to replace the MOC control board. Make sure the dealer references this YS service letter number when filing their claim. A copy of the installation instructions for the MOC control board replacement are attached for your reference.

Distributor Inventory

This service letter authorizes you to rework your inventory by replacing the MOC control boards on any of the 3 ton models listed above. Note that returning your inventory to Wichita will not be authorized or approved at this time.

We will reimburse you a fair and reasonable allowance for time and expense to implement the rework. Once completed, submit a spreadsheet indicating the model and serial numbers of the units reworked to Mark Freund at mark.w.freund@jci.com. Make sure you provide the amount of time spent performing the rework, your labor cost and any associated charges. Upon review and approval, we will issue a lump sum credit to your account to cover the labor expense and your cost of the MOC control boards.

Repair Parts

If you have any of the S1-33103502000 3 ton inverter drive kits in your repair parts stock, this service letter authorizes you to rework them as well by replacing the MOC control board with the new two-sided version referenced above. Please include the labor charges as spelled out above for distributor inventory rework.

You will need to order the appropriate number of MOC control boards from Source 1 to address both the field installed units in your territory as well as any units in both your finished goods and repair part inventory.

We do not want any replaced MOC control boards returned. MOC control boards that have been replaced can be field scrapped.

Please feel free to contact the undersigned or anyone in the Residential Technical Support group at 877-874-7378 if you have any questions.



Mark Freund
Sr. Manager, Residential Field Service
Johnson Controls Ducted System



Shawn Hern
Engineering Manager, Advanced Systems
Johnson Controls Ducted Systems