

Statement of Work

Procedure to rework 151X1225DF01PC02 due to false De-sat

Revision History:

Rev	Date	By	Reason For Change
0.1	03/26/2012	Jianquan	Preliminary draft
0.2	03/28/2012	Jianquan	Updated step 3.4, 3.5. Added step 3.7.
0.3	04/10/2012	Jianquan	Updated step 3.6 to add labels & marking to clearly indicate unit reworked or not.
0.4	04/11/2012	Jianquan	Updated step 3.6: module label marking.
0.5	4/16/2012	G Yohe	Updated step 3.6: circuit board and module label marking.

1. Purpose

This doc is to guide “Louisville Service Center” to rework 20Nm pitch power converter for solving false de-sat issue.

Part Number:

151X1225DF01PC02 or 104W4708P002

Example:



Note:

This method (replacing C34, C35, C44, C60 with 0.0047uF caps) need to be verified at wind sites, before formal release.

2. Tools, Materials required

- Capacitor: 4 capacitors per converter: 0.0047uF, 10%, 50V, 0805 package (GE 63G3007-D47N50K, AVX 08055C472KAT2A)
- Wrench to disassemble/assemble screws
- Screwdriver
- ESD protection (Electrostatic ring, electrostatic belt, gloves)
- ESD Bar
- ESD ionizer
- Industrial alcohol
- DI Water
- Soldering equipment/iron
- Solder wire
- Cotton swab
- Conformal Coating: Humiseal 1C55

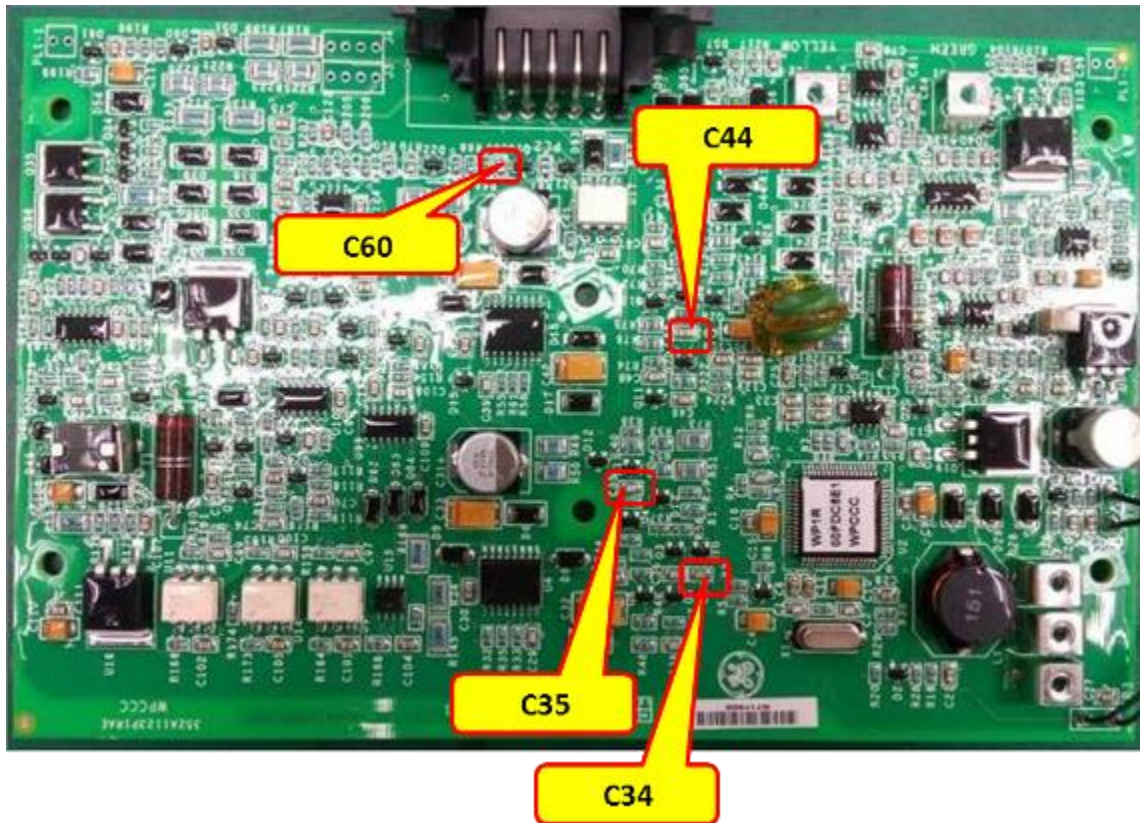
3. Work Steps

3.1 Disassemble

Remove Cover

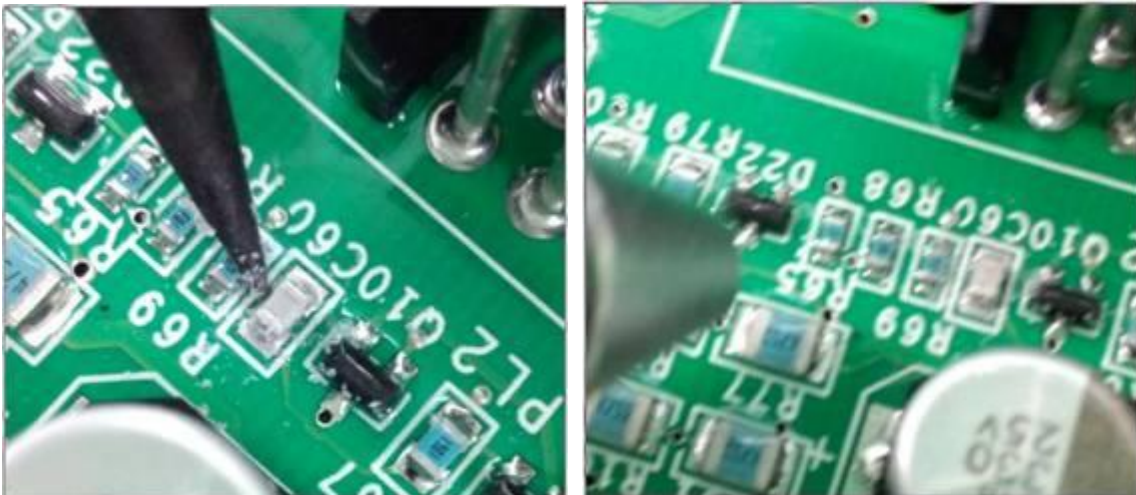


3.2 Locate Capacitors (**C34, C35, C44, C60**)



3.3 Remove coating of Capacitors (**C34, C35, C44, C60**)

Use ESD bar to scrape the conformal coating.
Clean by ESD ionizer.
Use Industrial alcohol to clean the board area.
Clean by using DI Water.



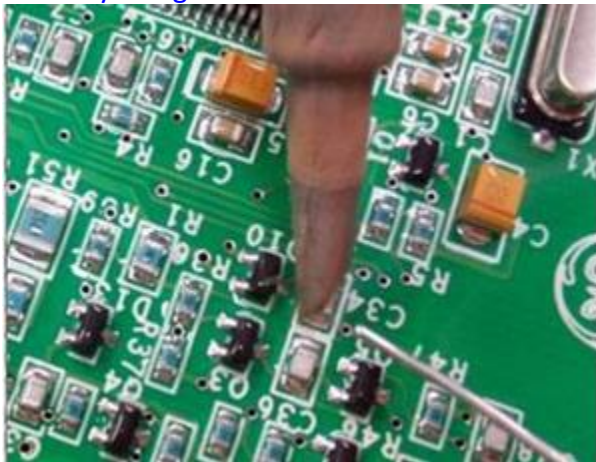


3.4 Remove Capacitors (**C34, C35, C44, C60**)

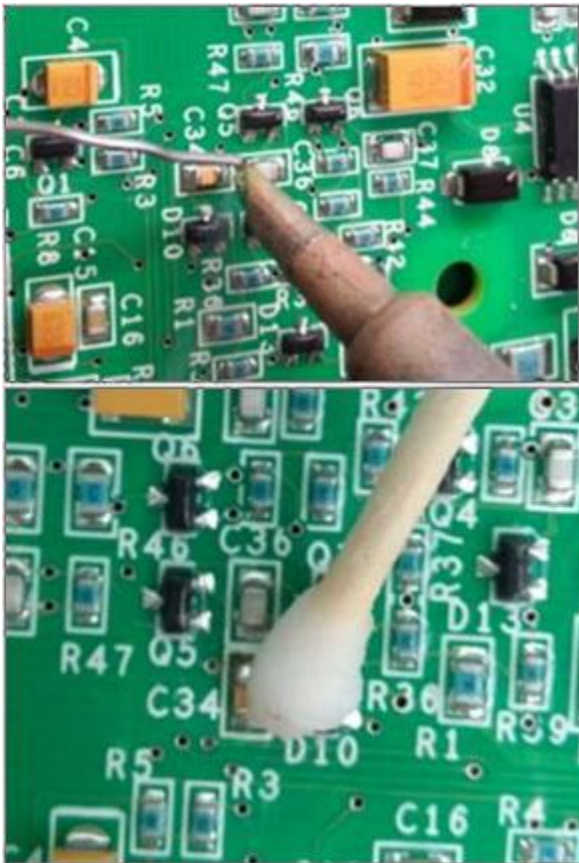
Remove capacitors by solder iron.

Use Industrial alcohol to clean the board area.

Clean by using DI Water.



3.4 Install new Capacitors (**C34, C35, C44, C60**)



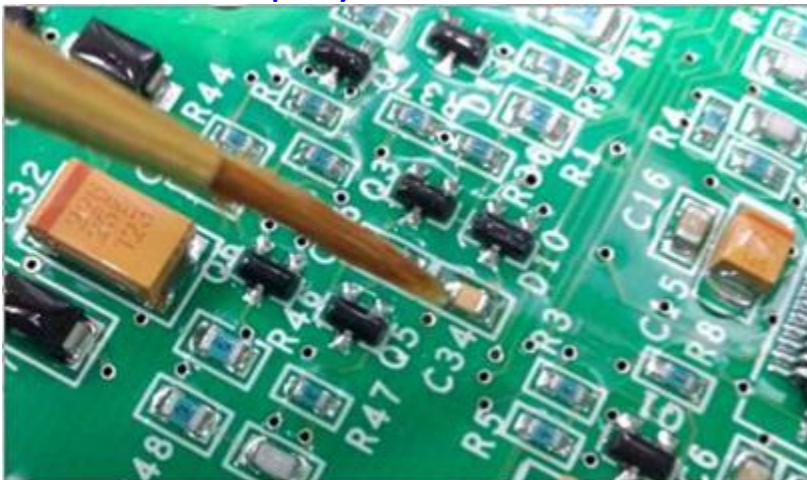
After capacitors installed, clean and dry (C34, C35, C44, C60) pads.

3.5 Conformal Coating Capacitors (**C34, C35, C44, C60**)

Use brush to coating the oil at the specifically area.

Use heat gun to heat up for coat frozen.

Note: **Do not seal impurity in.**

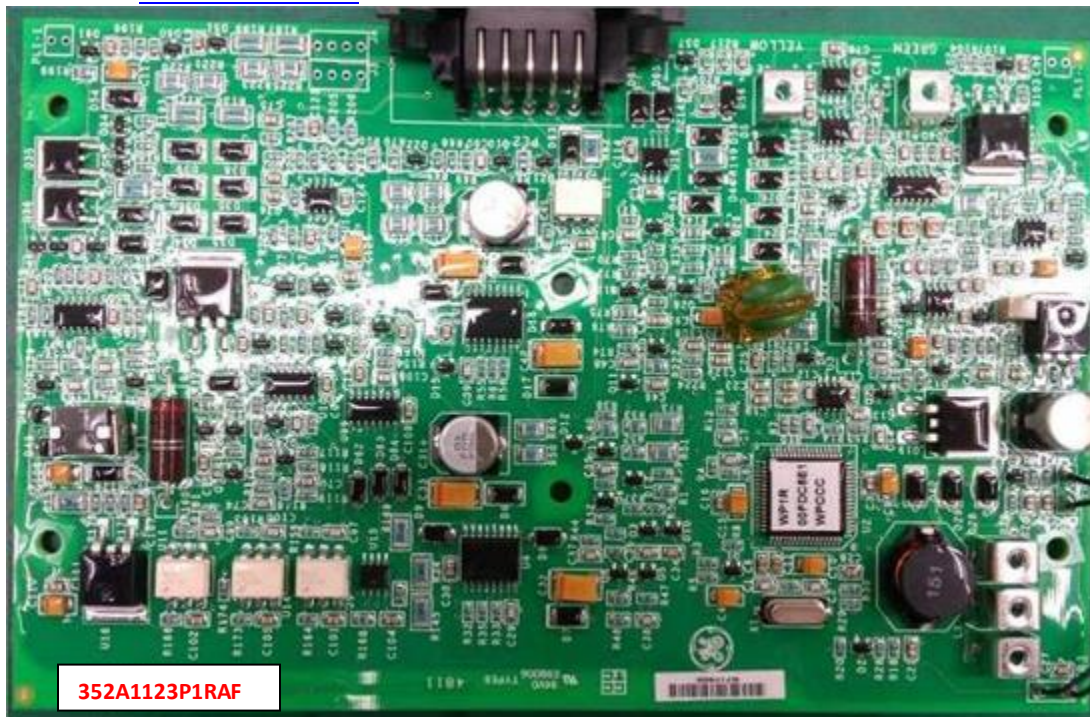


3.5 Visually re Check Capacitors (**C34, C35, C44, C60**) for defects and well installed

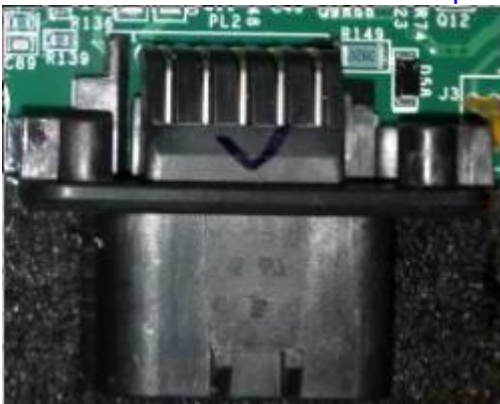
3.6 Label & Assemble

3.6.1 circuit board label after rework

Put label "**352A1123P1RAF**" to reworked WPCCC card.



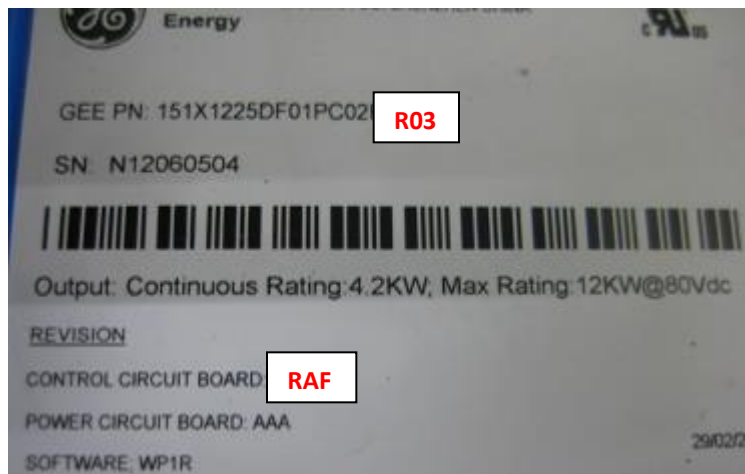
Mark reworked board with "V" on part PL2.



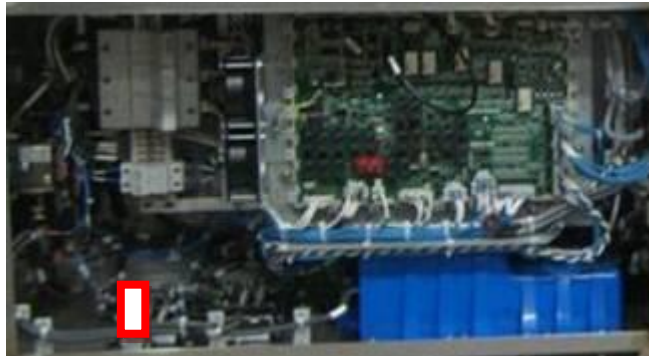
3.6.2 module labeling after rework – determining factory or service unit

a. if the 151X1225DF01PC02R0 had been energized and used for any commercial operation in the field, it is considered a service unit.

- Change module label PN marking from 151X1225DF01PC02R0 to 151X1225DF01PC02R03.
- Add label RAF on top of RAE on label area “control circuit board”
 - Add module label PN marking 104W4708R003 on the side cover.
 - Label the shipping box with 104W4708R003

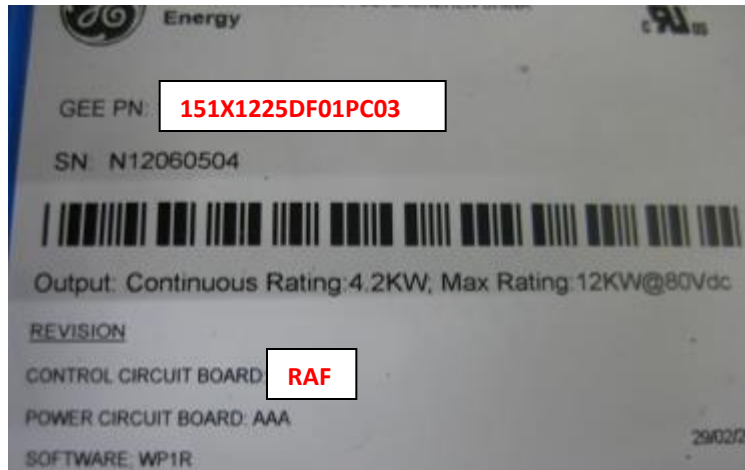


- Add module label PN marking 104W4708R003 on the side cover.

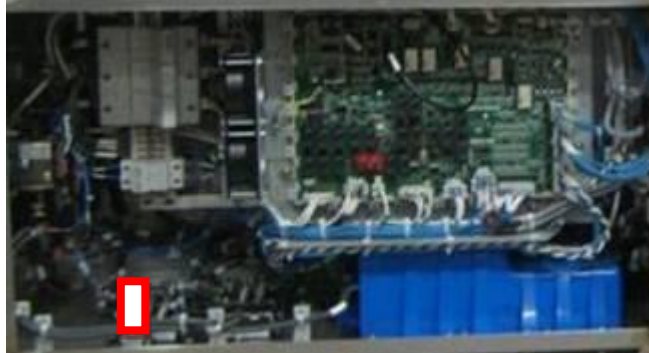


b. if the 151X1225DF01PC02R0 has not been used for any commercial operation in the field, it is considered a factory unit.

- Change module label PN marking from 151X1225DF01PC02R0 to 151X1225DF01PC03
- Add label RAF on top of RAE on label area “control circuit board”



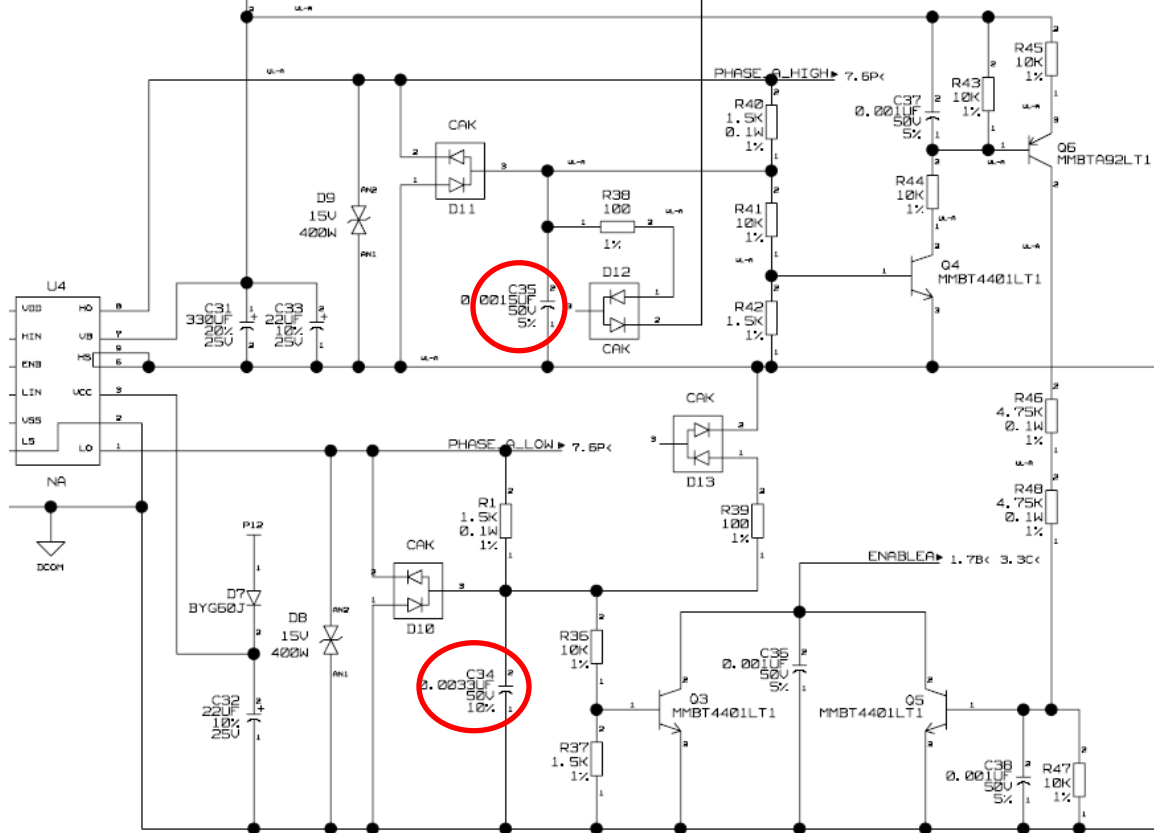
- Add module label PN marking 104W4708R003 on the side cover.



3.7 Test at pitch converter FVT

Schematic

C34, C35 in Bridge/Phase A De-sat detection circuitry



C44, C60 in Bridge/Phase B De-sat detection circuitry

