UPDATE FILE FOR GYSMI 190

CONTENTS

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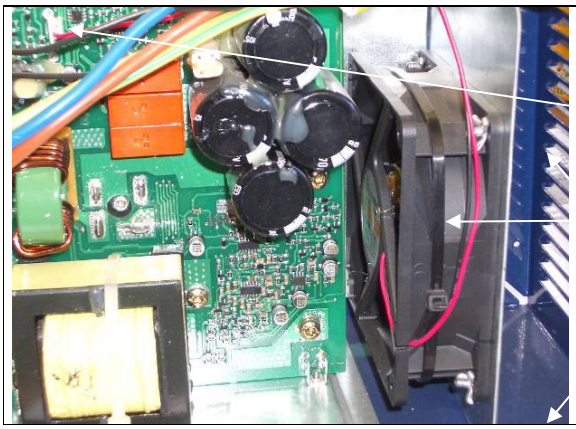
VERSION	MODIFICATIONS	DATE	AUTHOR
1.0	CREATION	27/10/2006	
2.0	PARAGRAPH 5) ANTISTICKING ADDED	25/05/2007	BRUNO BABLEE

1) Replacement of defective fan

You must modify the fan for machines manufactured before September 2005.
Check if there is some glue on the fan circuit : if there is no glue follows this procedure.

a) BURNT FAN CIRCUIT



Disassembly of the fan :

- remove the fan connector

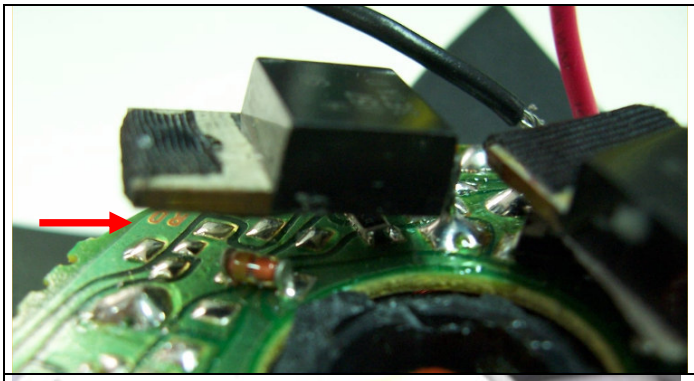
- cut the plastic collar which holds the fan to the aluminium plate

- remove the 4 rivets from the aluminium plate

- change the fan ref : 51021

b) MACHINES MANUFACTURED BEFORE 09/2005 IN WHICH THE FAN TURNS CORRECTLY (burn risk)

Modification of the fans 51021



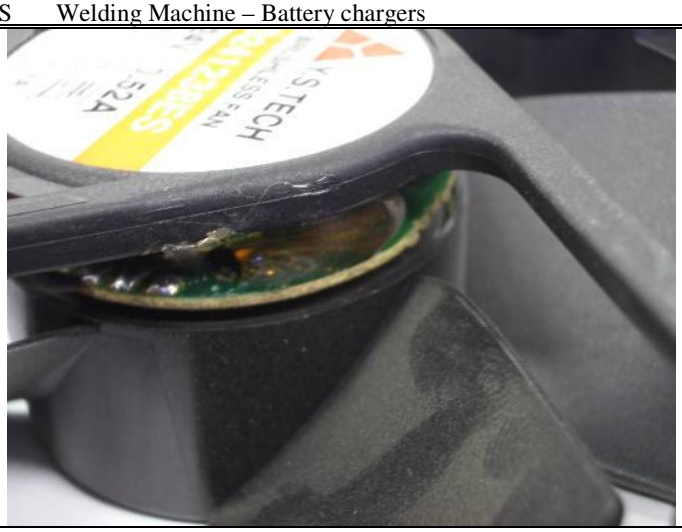
There is a risk of short circuit between the transistor metallic part and the components below.

To eliminate this risk, insert some glue between the transistor and the PCB.

Remove the fan connector

Cut the plastic collar that holds the fan to the aluminium plate

Raise delicately the transistor with a screwdriver or other tool to separate the component from the fan circuit. Do the same for the other transistor located on the opposite side.

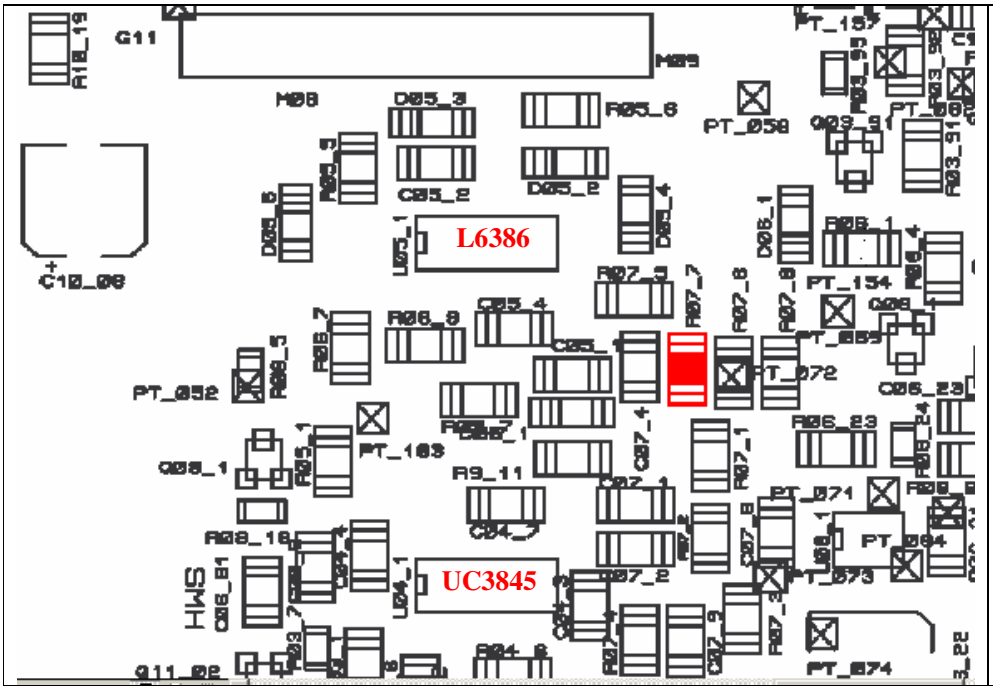


Insert some glue between the metallic part of the transistor and the fan PCB.

Reassemble everything the opposite way.

2) Update to limit the short-circuit current

PCB INDEX IMPACTED BY THIS MODIFICATION :PCBs manufactured before May 2006.

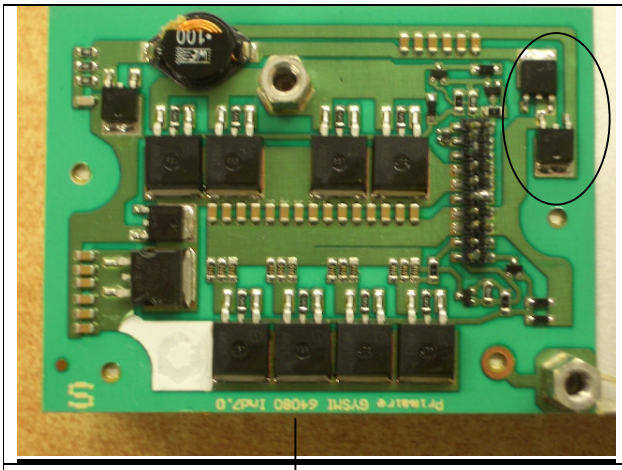
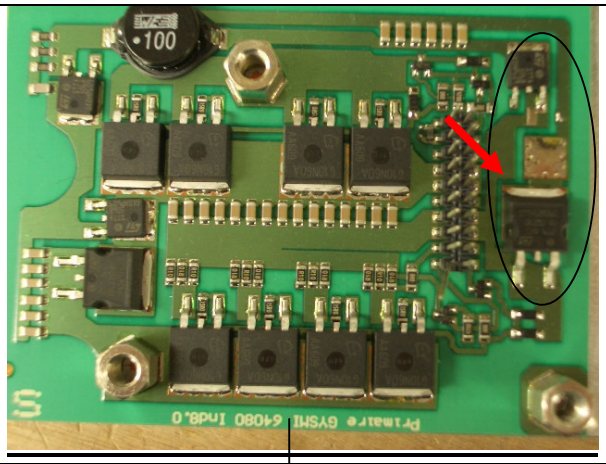


In the PWM generator area, R07_7 is located close to the UC3845 and L6386 components.

Remove this 220 Ohm resistor in order to limit the short circuit current on the product.

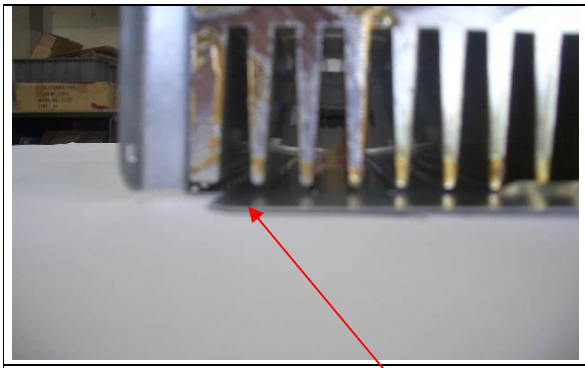
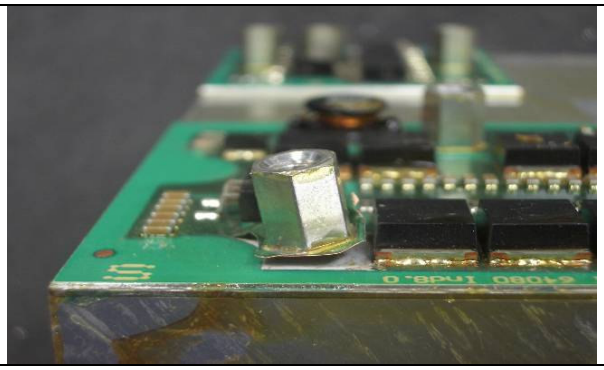
3) Diode of demagnetisation on power block

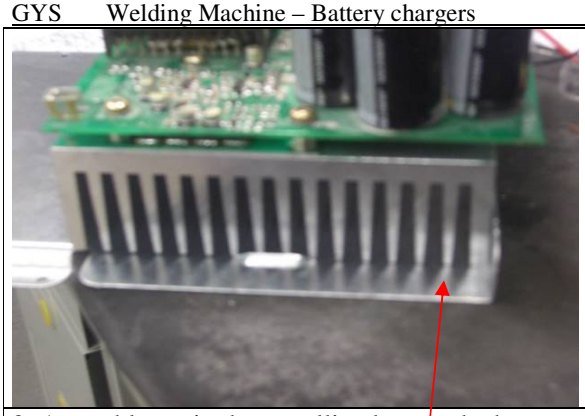
PCB INDEX IMPACTED BY THIS MODIFICATION : PCBs manufactured before May 2006..

	
When you have a gysmi 190 product with this version of IMS Module (little diode), you **MUST** change the power block. SMI version < ind.8 If the power block is burnt and is from this version refer to technical assitance ANNEX 1 in order to have the list of the components to change on the main PCB.	This version is the new version, the only difference is the demagnetisation diode with a bigger box. SMI version ind.8 This version of the SMI is assembled on our machines since May 2006.

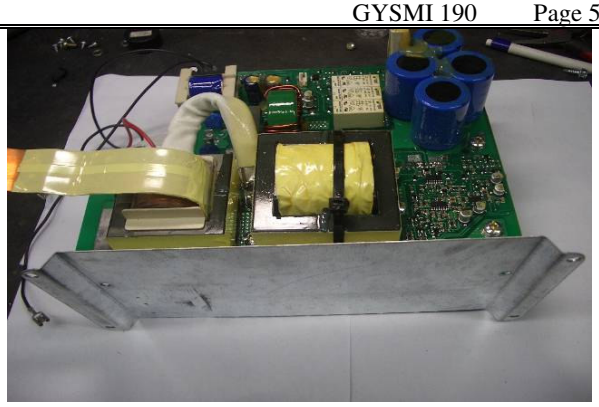
4) How to reassemble correctly the PCB in the metal case

PCBs IMPACTED BY THIS MODIFICATION: PCBs manufactured before October 2006.

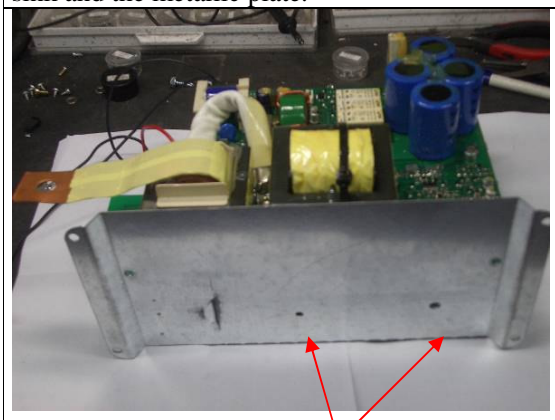
		
1. There is a space between the heat-sink and the metallic plate.		2. Consequently, the mechanical strains breaks the tracks where the bolts are soldered.



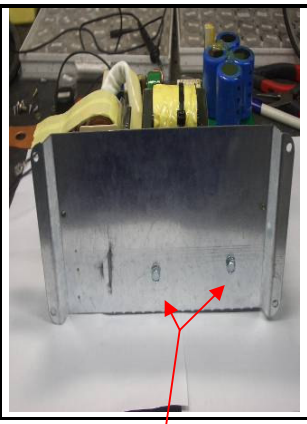
3. Assemble again the metallic plate on the heat-sink : make sure there is no space between heat-sink and the metallic plate.



4. Fold up the bottom metallic plate, keeping the heat-sink in contact with the metal plate.



5. Drill two holes through the bottom metallic plate and through the heat-sink.



6. Screw the bottom metallic plate on the heat-sink with self-tapping screws. Do not put back the original screws.

5) Power transformer in short circuit

Products manufactured end of 2005 and beginning of 2006 are potentially impacted by this failure.

We have identified several batches of transformers which can be defective. Here are the references of the defective batches :

- 532
- 539
- 545
- 603

GYS Reference : 64142
This update is mandatory for transformers from this batch.

How to detect it ?

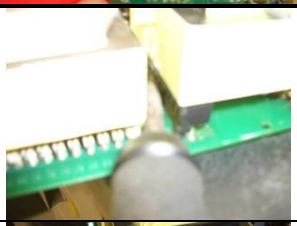
- apply 60V on the electronics board and measure the current consumption. If the current consumption is 0.04 A during the first 2 seconds, and then a peak of current is observed (well above 0.10 A), then the primary transformer is in short circuit.
- or measure the transformer inductance

How to change it ?

- *disassemble the power block in order to unweld the transformer*

If the power block is defective, refer to « change the power block » on GYS website and follow this procedure		Cut the pins and break those that are near the self
		- Put the transformer in position - Weld the transformer pins - Put the power block in position - Put the bolts screws - Weld the power block connector
If the SMI is OK, take a welder with a specific extremity to remove the power block without breaking the connector		Put some tin on the connector, take off the power block after removing the screws and separate the diode bridge from the aluminium block
		refer to the precedent procedure

- *By cutting the pins of the transformer*

The difficulty of this solution is to weld properly the pins without damaging the components around and the PCB		Cut each pin of the transformer
		- Clean the PCB - Put the new transformer - Remove the screw from the secondary self - Weld the pins by the top of the PCB and by the bottom when it's possible
		

6) Improvement of the Anti-Sticking function

In order to improve the anti-sticking function on all the GYSMI 190 products, it is recommended to apply the following update. This update is applied in production since middle of May 2007.

In the PWM generator area, replace R06_3 (15K) by a 7.5 K resistor.