Brick v6.5.2 Optimized Reconstruction for Technicians

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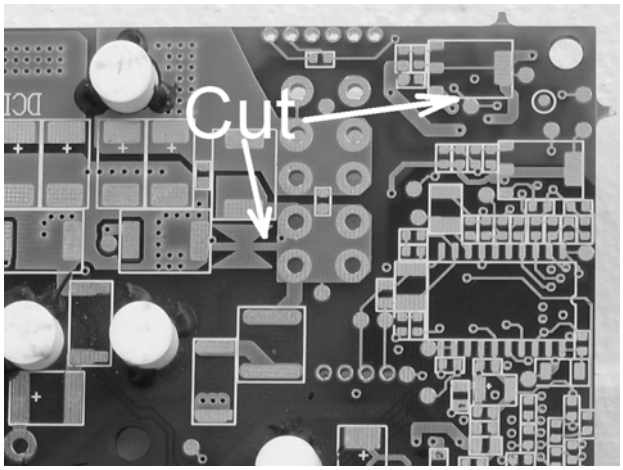
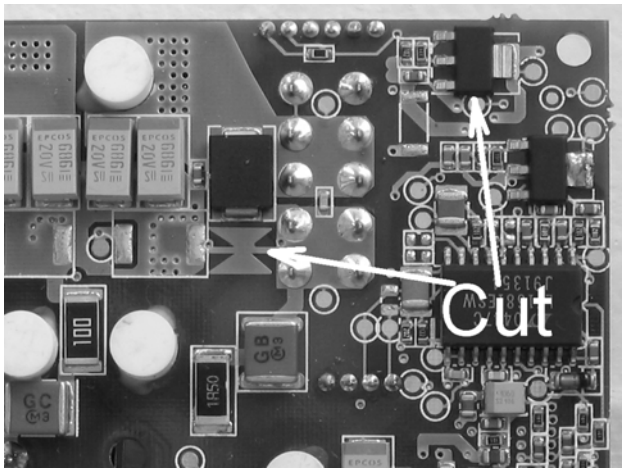
NC HEP, Minsk, CERN-LVPS

21.11.06

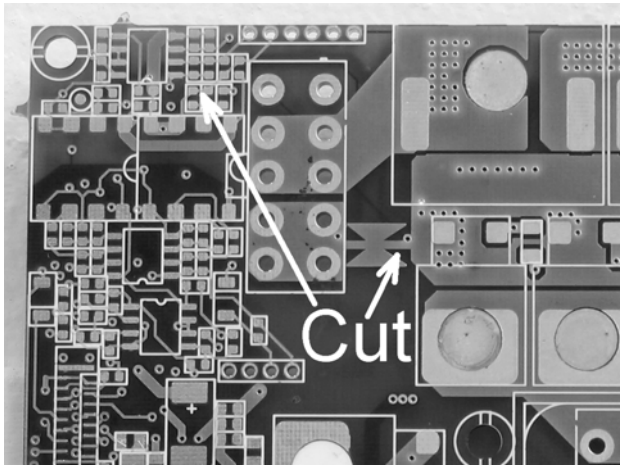
1. Cutting PCB wires:

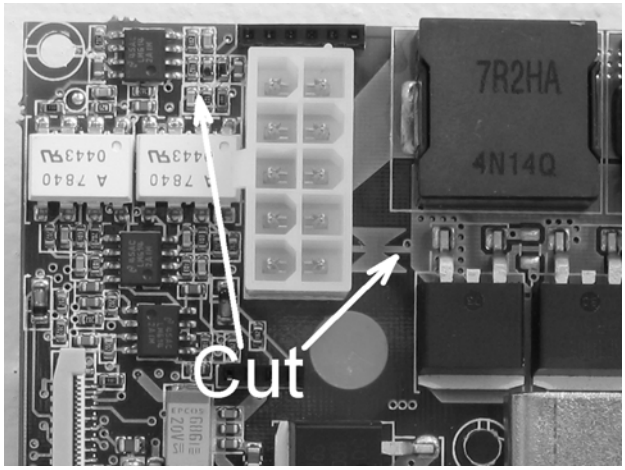
– between T15 and pin 1 of U13, “Butterfly” on top side.



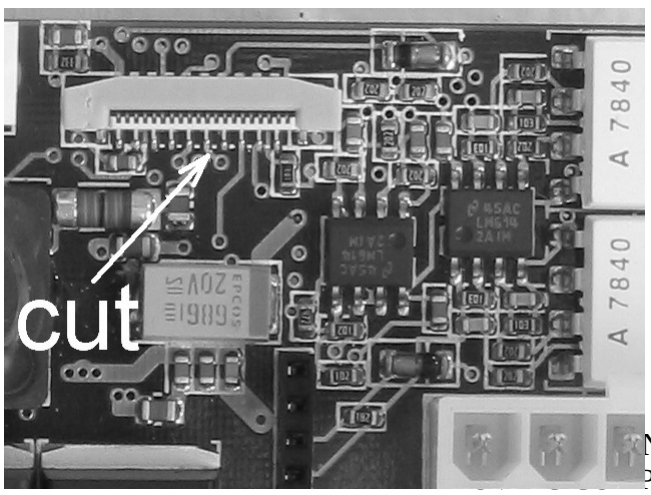


- between GND pins R71 and C80, “Butterfly” bottom side.

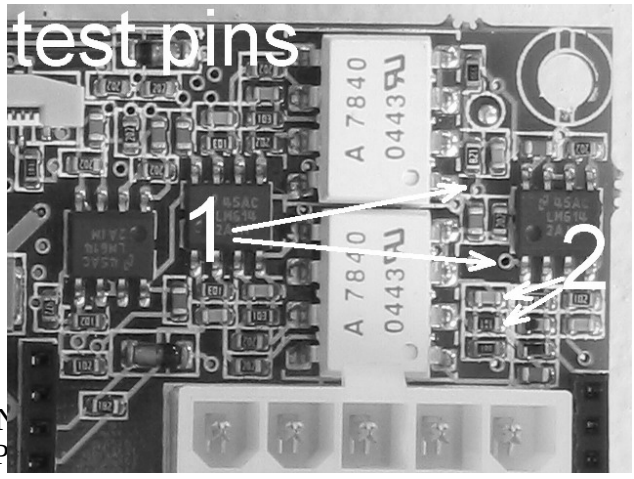




- Cut trace from pin 11 (LT1681) in J2

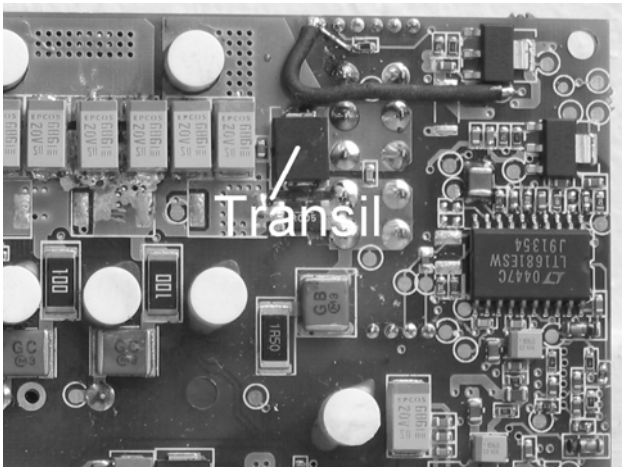


- check the test pin (not shortcut)

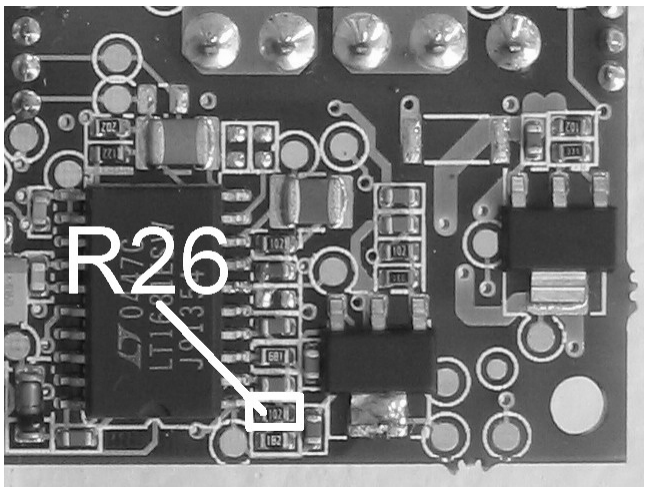


REMOVING COMPONENTS BOTTOM SIDE:

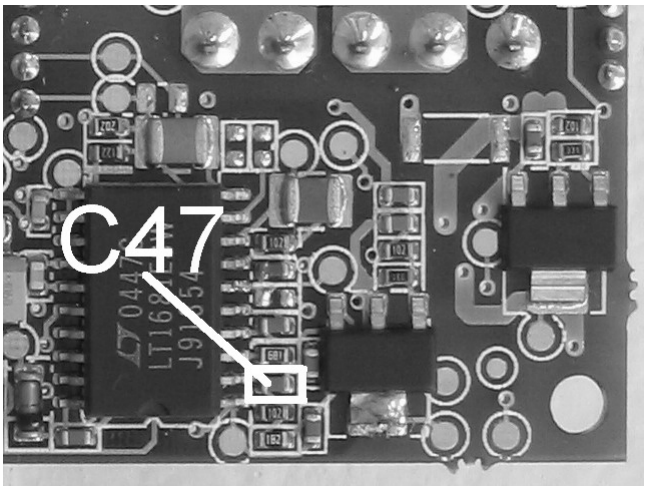
2. the TRANSIL,



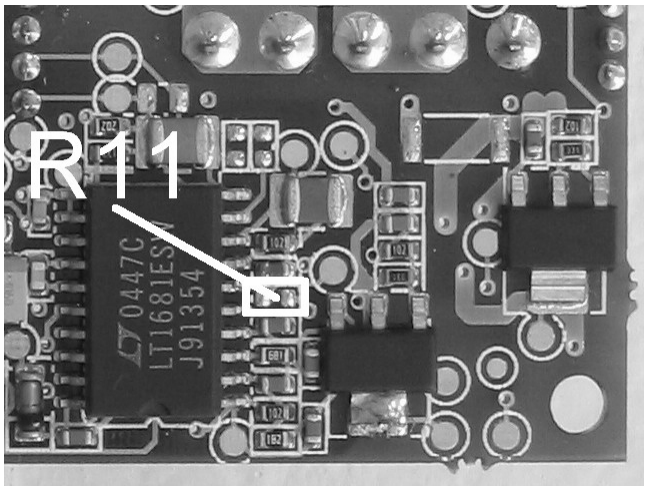
R26 (1k),



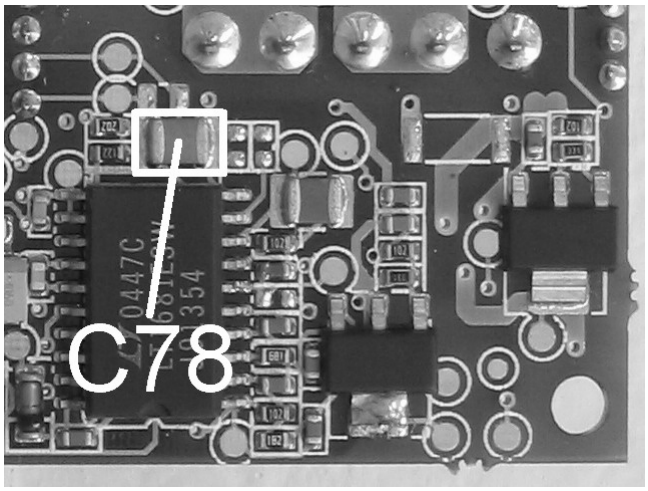
C47 (100n),



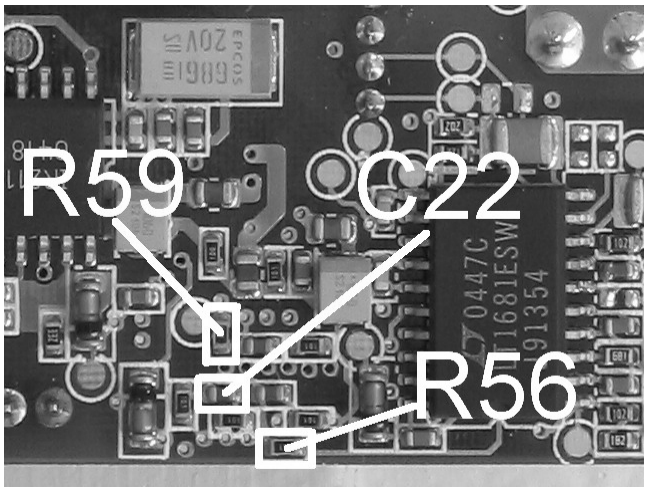
R11 (62k),



C78 (100n)

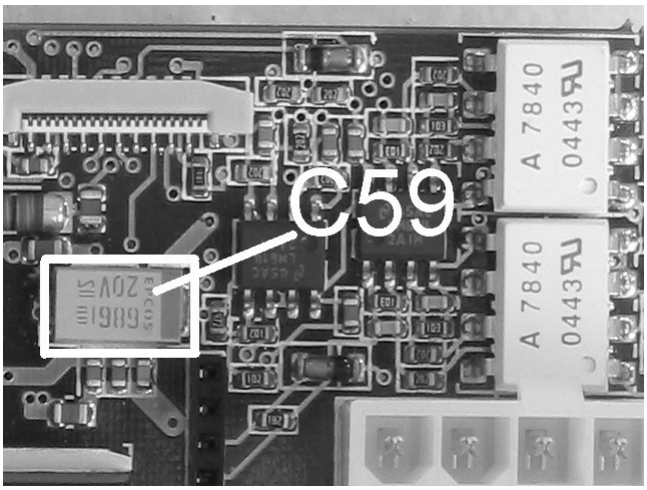


R59, R56 (100 ohm), C22 (47n)

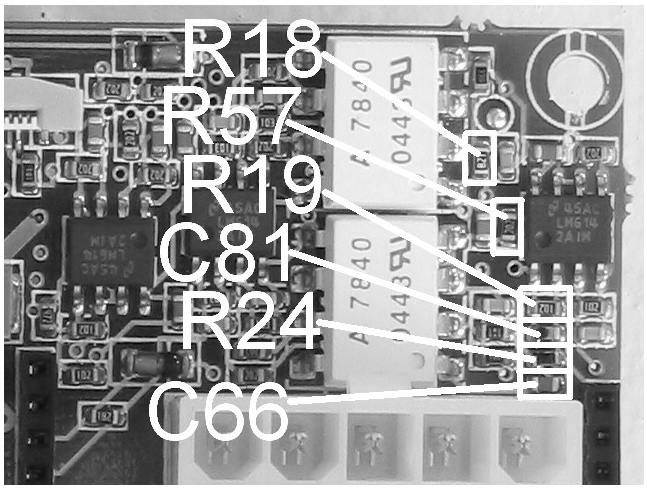


REMOVING COMPONENTS TOP SIDE:

C59 (68uF)

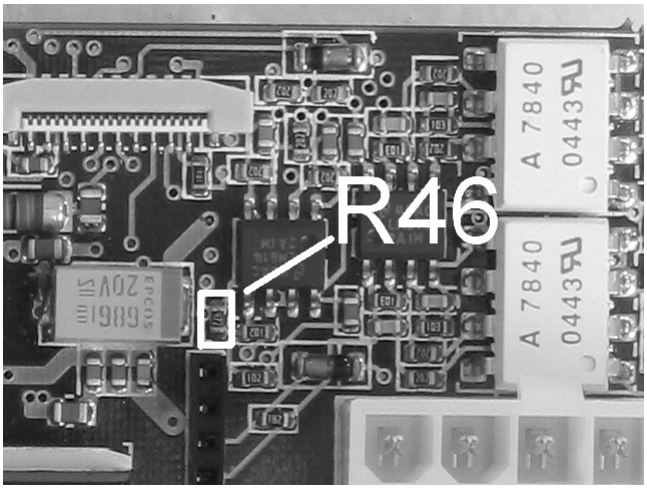


R18, R57, R19, C81, R24, C66,



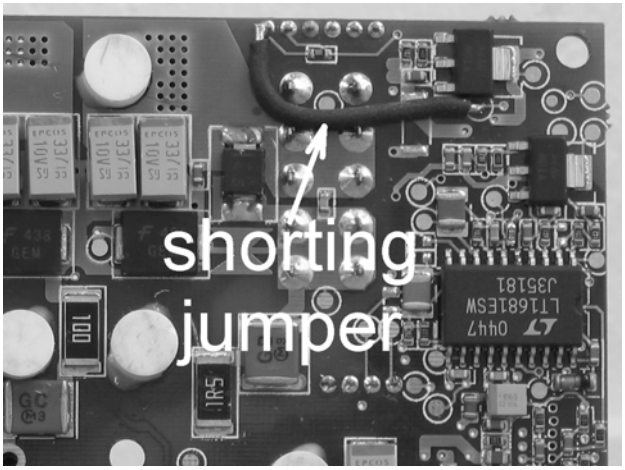
ONLY IN **15V BRICKS**!!!

R 47 (4k7)

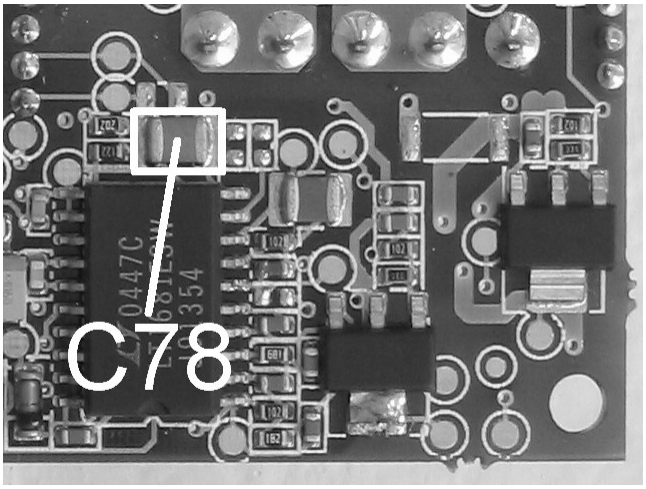


SOLDERING BOTTOM SIDE

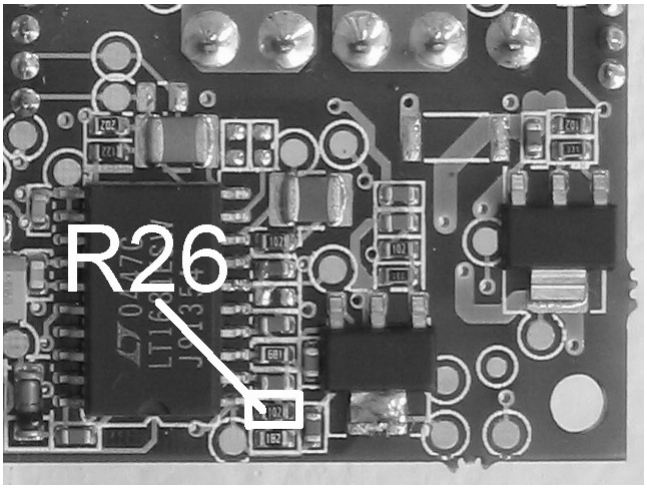
1. (Prepare 8 pieces of 30 mm wire with isolation)
2. wired short cuts: solder to follow the picture…



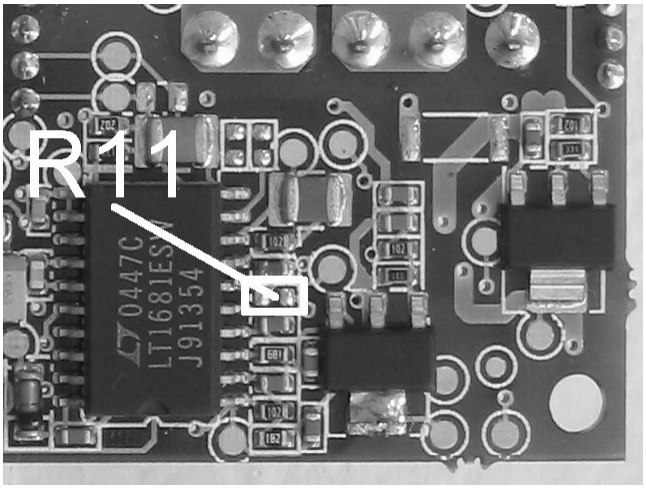
3. C78 (10n)



4. R26 (1.5k)

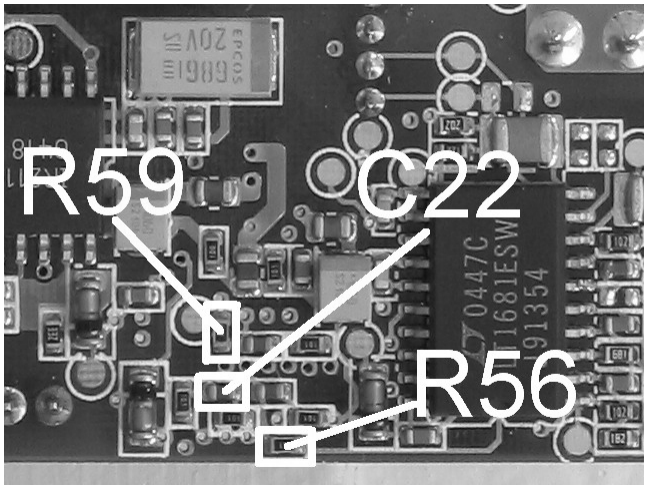


5. R11 (100k)



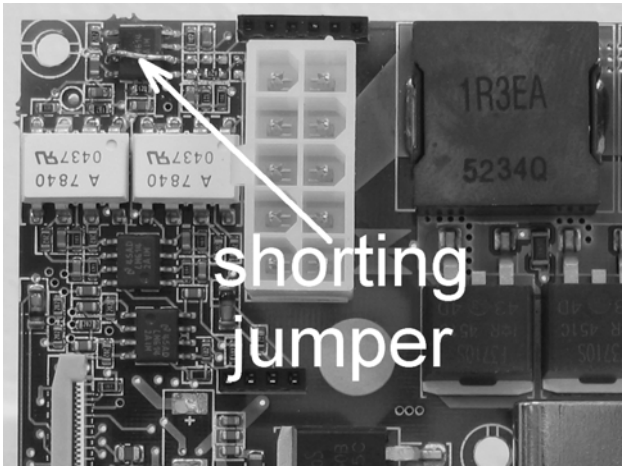
6. R59 and R56 (10k)

7. C22 change to R (1.8k)

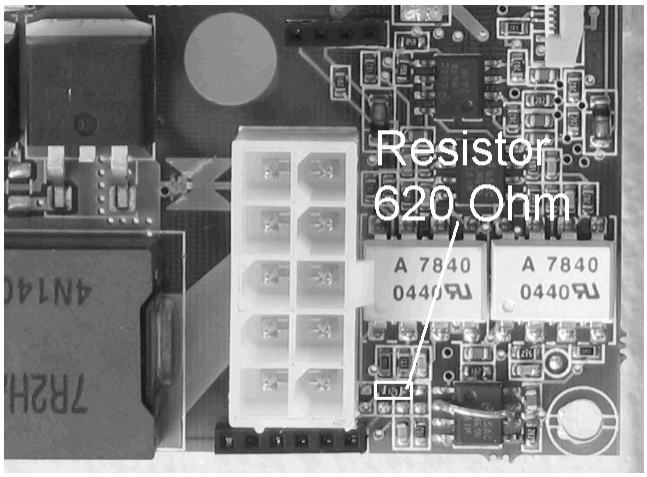


SOLDERING TOP SIDE

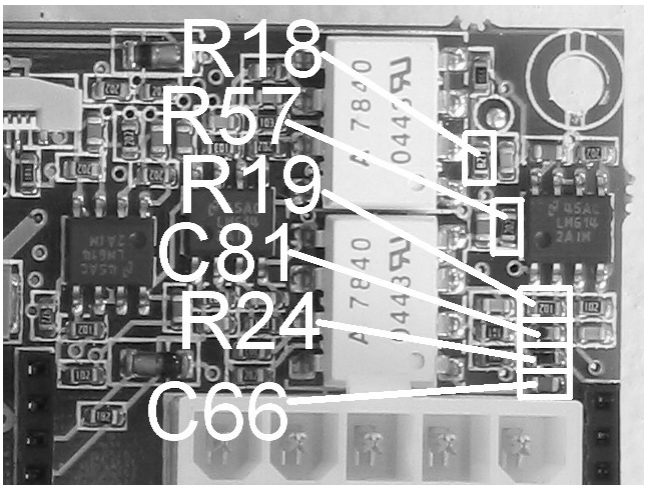
1. The short cut between pins 7, 6 and 2 of the U13.



2. Soldering one 620 ohm resistor



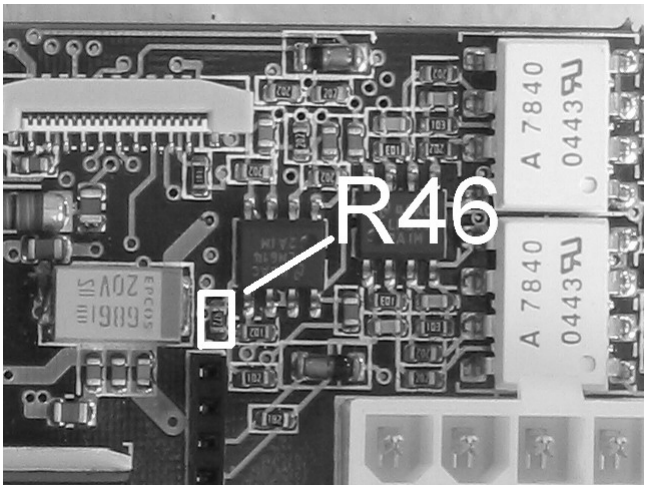
3. Solder R18 and R57



Brick's type	**R18**(new value)
3.3V	1.1k
5.0V	1.8k
15.0V	5.1k

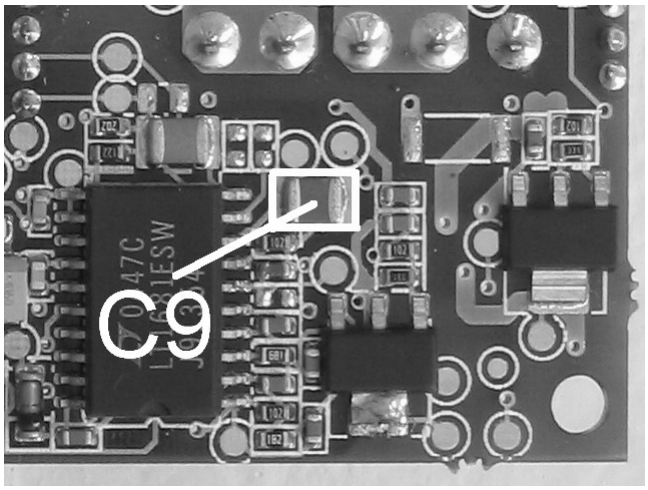
Brick's type	**R67**(new value)
3.3V	1.1k
5.0V	1.3k
15.0V	1.8k

4. Only in 15V Bricks: R46 – 7.5k



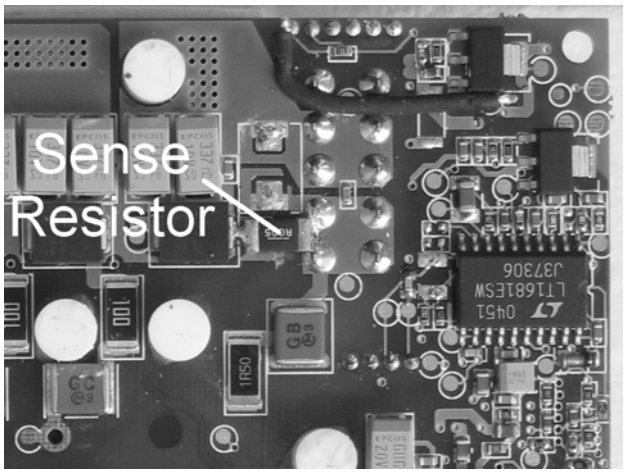
START UP SEQUENCE AND OCP.

1. Change C9 by table:



Brick's type	Value of C9	Starts in group
-5V MB	1.0uF	1
+15V MB	4.7uF	2
+5V MB	10uF	3
+3.3V DIG	4.7uF	2
+5V DIG	10uF	3
-15V HV	1.0uF	1
+15V HV	4.7uF	2
+5V HV	10uF	3

3. Soldering sense-resistors (instead "Butterfly") by table 4:

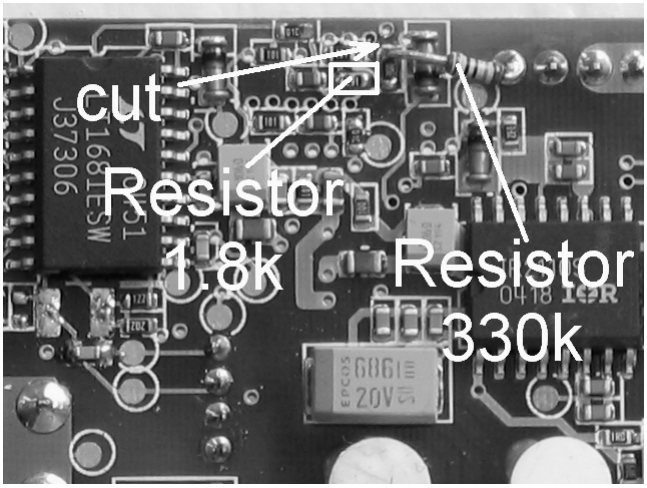


Brick's type	Value of sense-resistor	OCP, A
-5V MB	3mOhm	13
+15V MB	22mOhm	2
+5V MB	2mOhm	18
+3.3V DIG	3mOhm	13
+5V DIG	3mOhm	13
-15V HV	10mOhm	4.5
+15V HV	22mOhm	2
+5V HV	22mOhm	2

New table on 21.11.2006 brick v6.5.2 Slava

1. Additional 200V divider for V input measurement:

Cut line between R33 and OVLO pin 3 (LT 1681), then this point through 330k (680k) resistor connect to +200V.



2. In 15V Bricks solder preload resistor: 47-56 ohm, and +5V HV 22-33 ohm.