

Manual for fixing hanging problem of SMART Relay4ch20A/6ch16A/8ch16A of Batch 3

Manual Updated Date: Aug 31, 2012, V1.0

Way of using here:

Fix 3 resistors on bottom PCB board of Relay4ch20A of batch 3

Fix 2 resistors on bottom PCB board of Relay6ch16A/8ch16A of batch 3

Another way: Using USB plug to insert to the firmware upgrading port of Relay module
(Recommended)

Please know information as following:

- A. This document is used for resolving hanging problem of relay 4ch20A/6ch16A/8ch16A of batch 3.
- B. Relay PCB Version of Batch 3: V2.1, Updated date: Aug 2011
- C. Newer version V2.2 has already been resolved this problem from the PCB layout

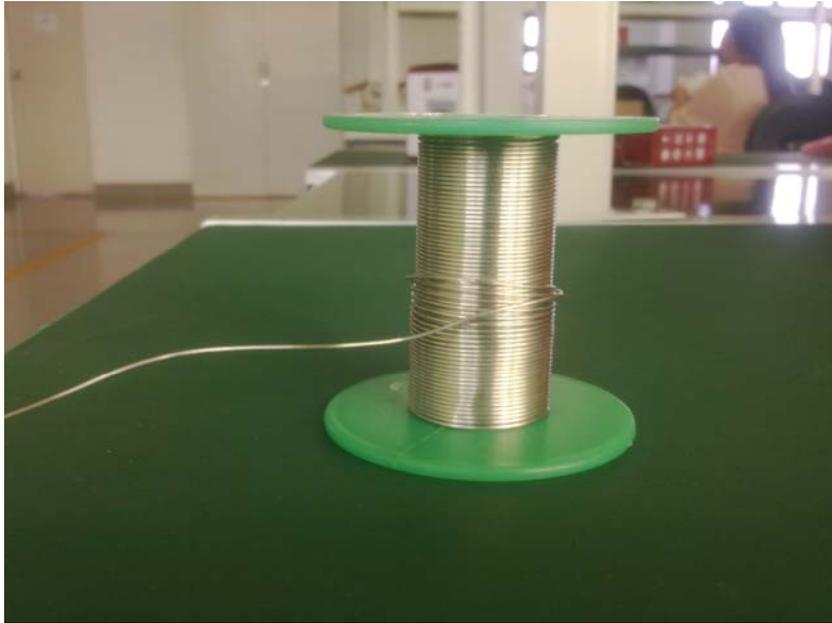
1. Tools needed

1.1 soldering irons

this tool is used for soldering electronic parts



1.2 Solder Wire



2. Fix PCB of bottom board

2.1 PCB layout of Relay 4ch20 V2.1

2.3 Repair resistors

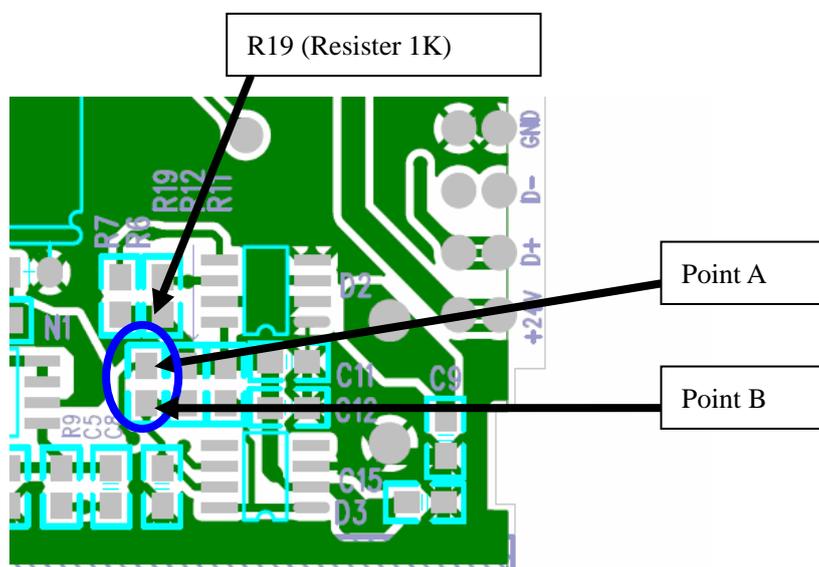
WARNING:

THE FOLLOWING OPERATIONS NEED TO BE DONE BY PROFESSIONAL SOLDERING PEOPLE ONLY.

2.3.1 R19 (Resistor 1K)

Apply to: Relay 4ch20A /Relay 6ch16A/Relay 8ch16A

R19 is located on the back side of bottom board

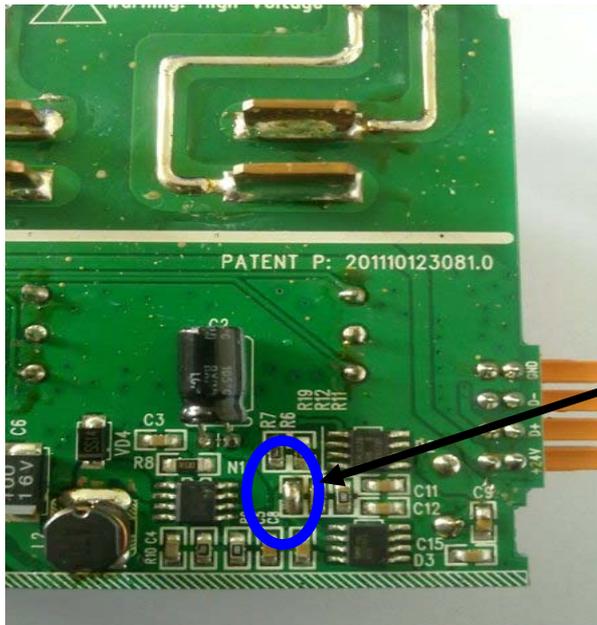


Here are the steps for R19

STEP 1. Remove resistor R19 from PCB

this resistor of R19 will be used in other area, please keep it and don't throw it.

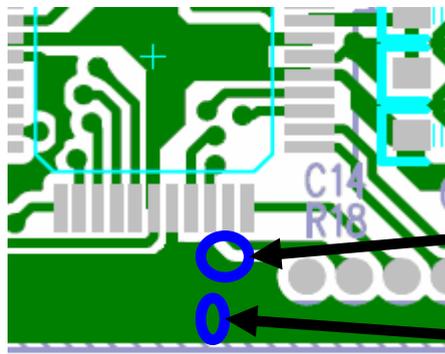
STEP 2. Connect Point A and Point B together by solder wire



After connected point A and Point B,
It will look like as the picture.

2.3.2 Solder resister of R19 (1K) on point C and Point D

Apply to: Relay 4ch20A /Relay 6ch16A/Relay 8ch16A



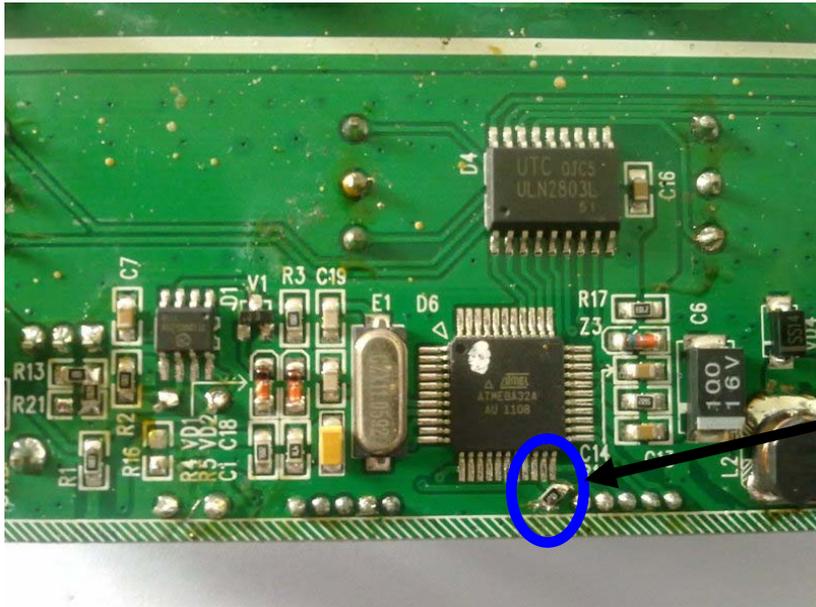
Point C, Point C is on the small track

Point D

Here are the steps:

STEP 3. Since there are no soldering points for Point C and Point D, so you need to use knife to erase a little green area on Point C and Point D as soldering points

STEP 4. Solder resister of R19 to point C and D, direction of resister is not sensitive.

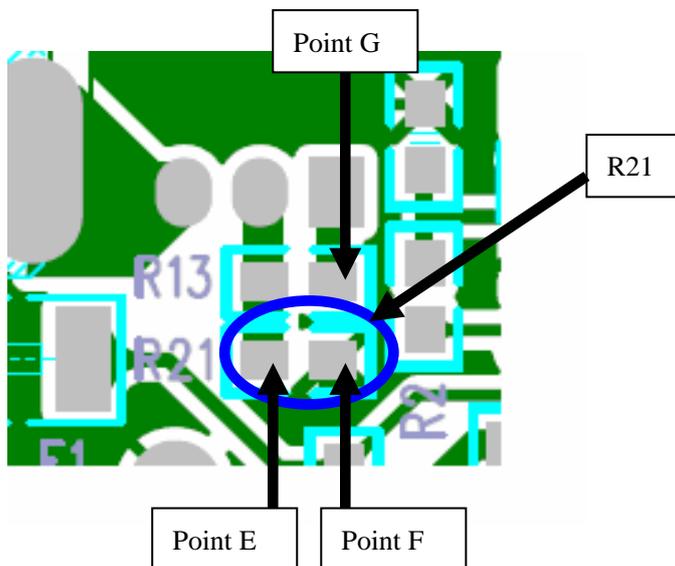


R19 has been fixed on Point C and D.

2.3.3 Change the location for R21

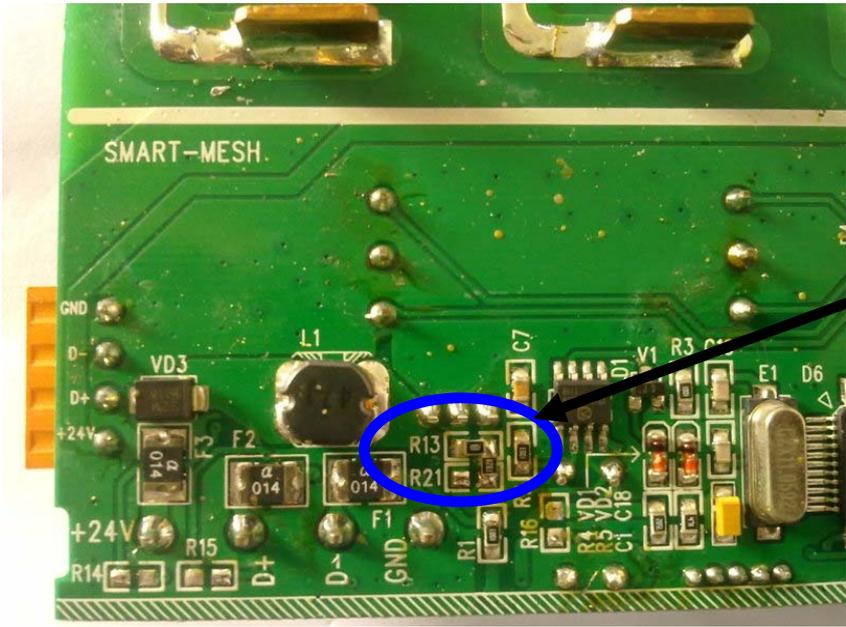
Apply to: Relay 4ch20A only

No need to change R21 for Relay6ch16A and Relay8ch16A, the following operations are only for Relay4ch20A.



STEP 5: Remove R21 from the PCB

STEP 6: Solder R21 on Point F and G, the direction of resistor is not sensitive.



R21 has been fixed.