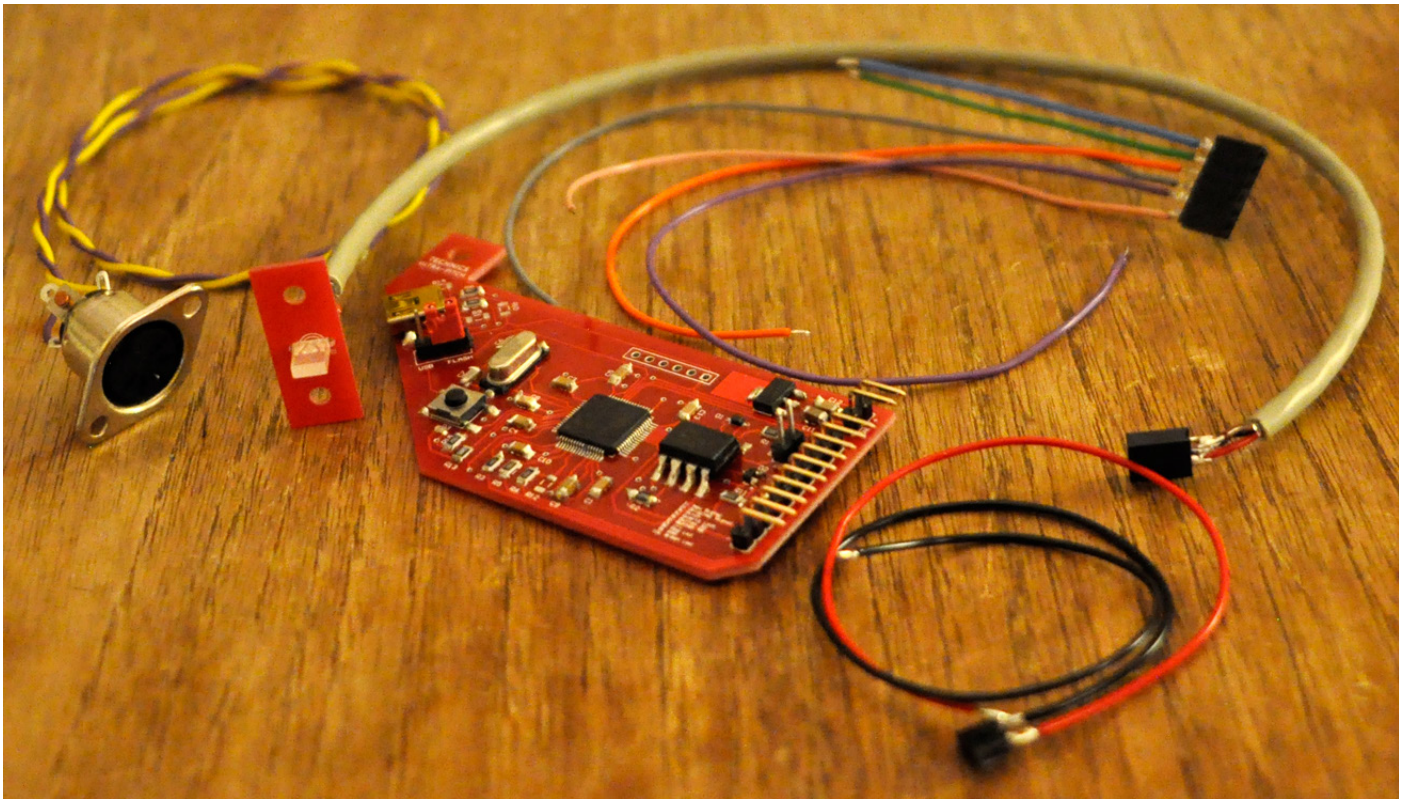
Technics ultra pitch mod
Instructions for installing

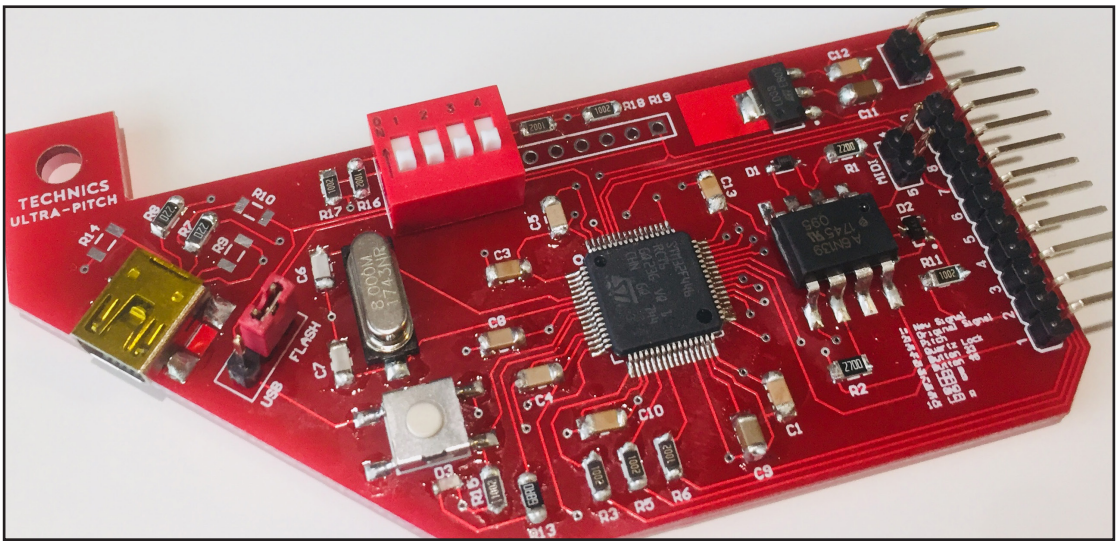
I´m not be responsible in any way if you damage your turntable during the installation or in using the mod.

This mod will void your warranty
(like someone would still have warranty :))

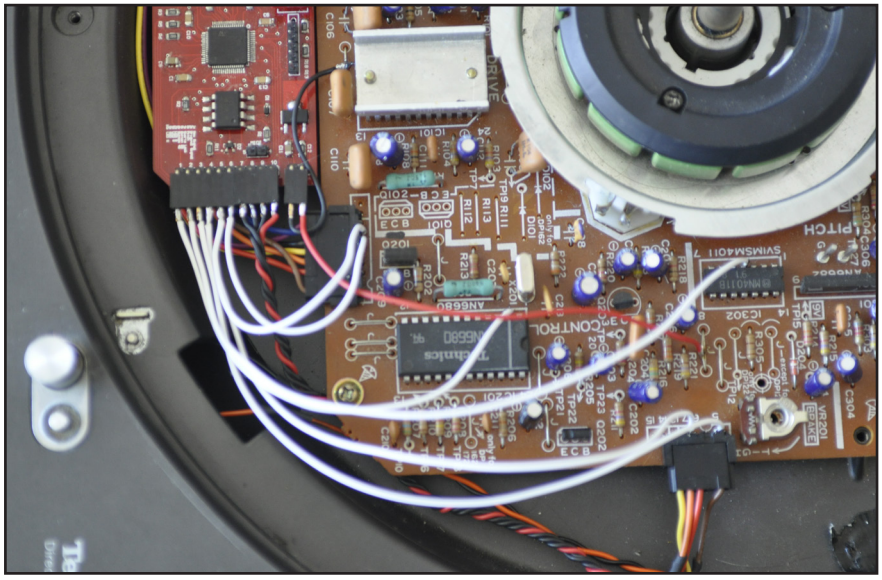
This mod requires some knowhow about soldering.
If you have no experience with soldering and electronics please ask someone who does to do the mod.



Additional instructions/notes for Technics Ultra Pitch Mod version 2



Not so much has changed from the original installation manual. But somethings you should take note of. For the new functionality please refer to the Flowchart v2 and videos on djbacktrack.com

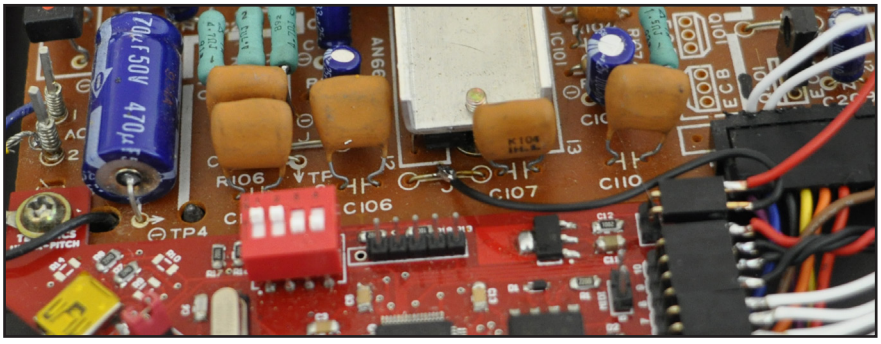


Wiring of the cables are not changed only an extra cable for the pitch-led is added.

Wire harness looks like this now (black or white cables).
Iv also stopped to precut the cables since most people like to do their own cable managment.
Use the original instruction below to easier understand where to solder the cables.

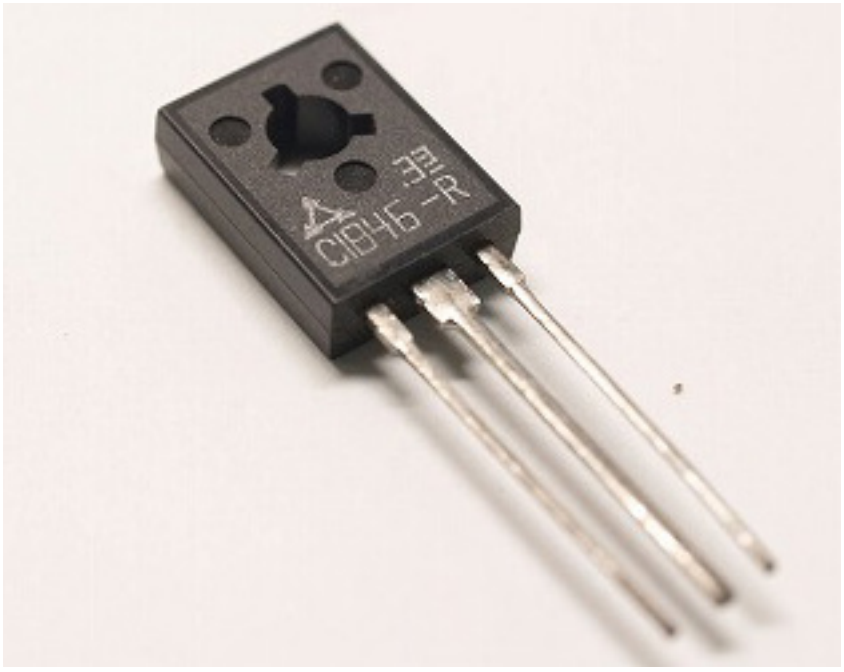
The red cable on the Led wire harness is connected to pin 10 like shown in the picture.

Instead of putting the ground cable under the screw solder it to the brigde (J) just under AN6680.



For the midi connector the white or pink cable is now connector 4. So its equivalent to the old yellow.

Notes on Q201 transistor

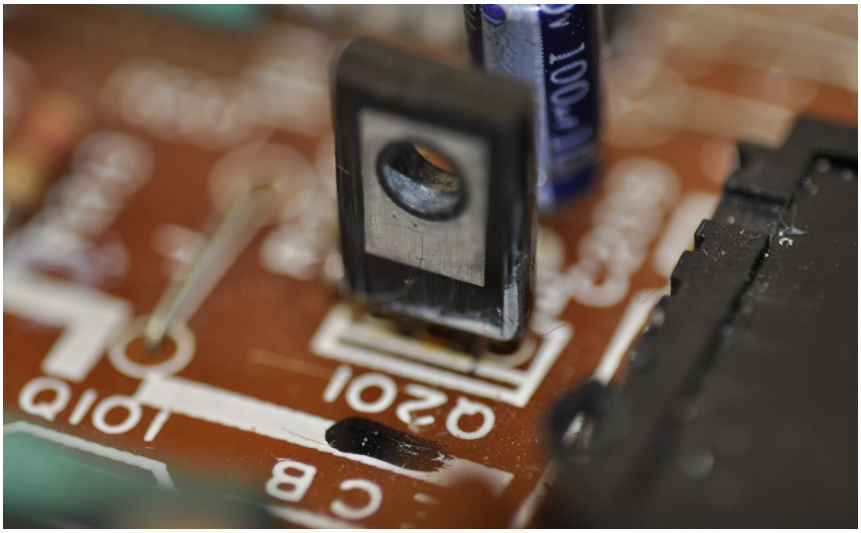


Technics Q201 is a NPN transistor called 2SC1846. It supplies the IC301 and AN6680 with power. If you google "Technics Q201" you can see it's a regular cause of the "out of control speed" issue.
Why the Q201 fails, I do not know. Maybe because of age or other components in circuit that change character over time.
If your Q201 is close to failing connecting the ultra-pitch mod can push it over the edge and break it.

This is very rare but I will include an equal transistor replacement in every kit. You don't have to replace it but it might be good

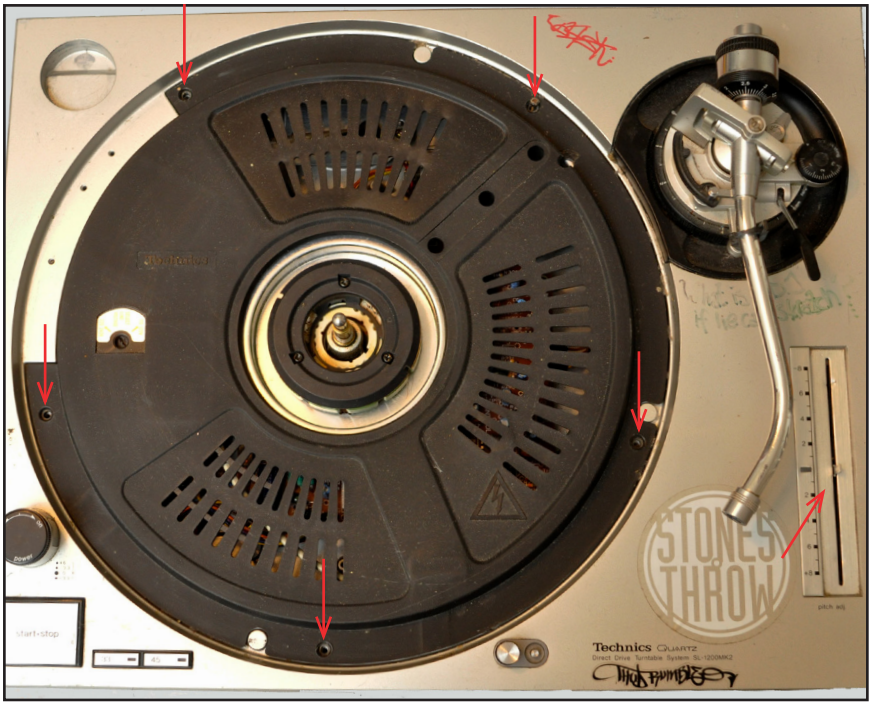
2SC1831		2N6056	3–97
2SC1832		MJ10009	3–451
2SC1846		MJE181	3–589
2SC1847		MJE181	3–589
2SC1848		MJE182	3–589

The replacement for 2SC1846 is a MJE181. They share the same characteristics and is a recomended replacement.



Replacement installed

Original installation instructions below

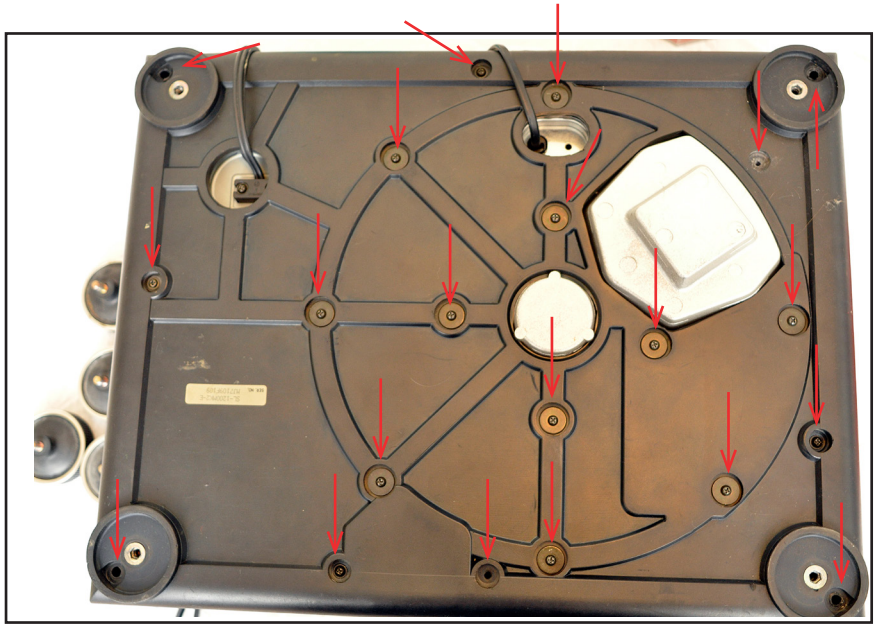


1. Remove the platter (just pull).

2. Remove the five screws holding the cover.

3. Remove the cover.

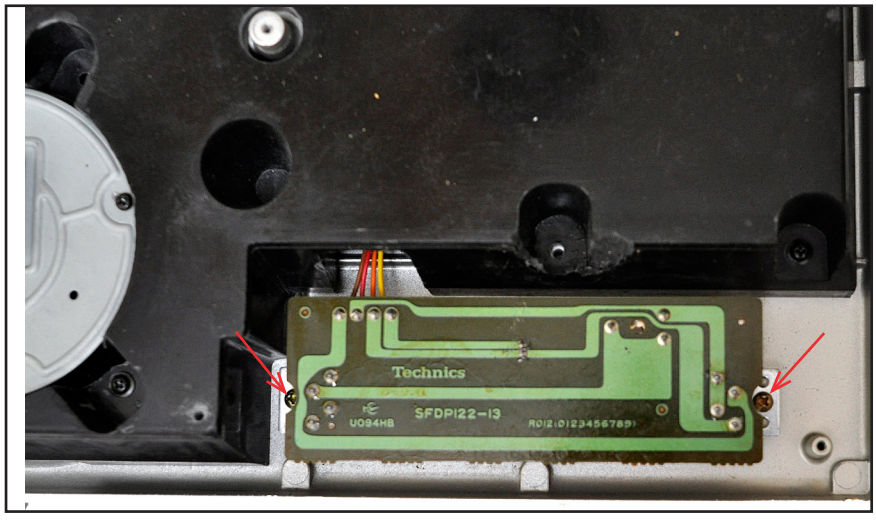
4. Remove the pitchfader knob.



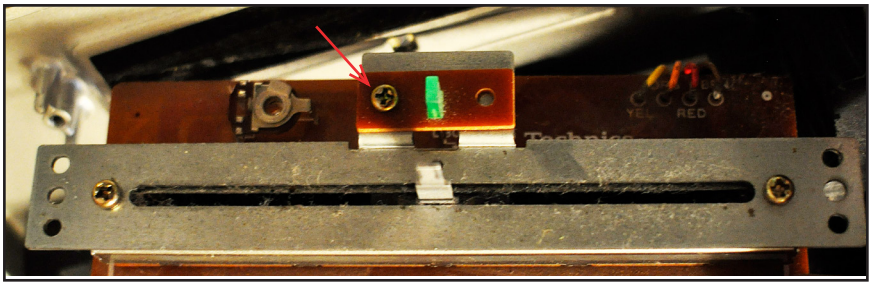
1. Remove the legs

2. Remove all screws (many)

3. Remove the base

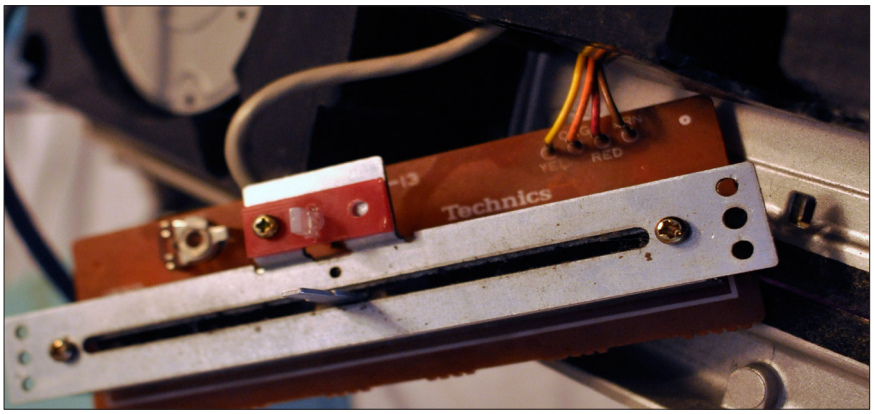


1. Remove the two screws holding the pitch fader.
Take note of the ground conncetor on the left screw. Just so you remeber when you reassemble it later.



1. Remove the screw holding the LED-board.

2. Either desolder the LED or just cut the legs from the PCB. (its a standard led so its replaceable if you want to reverse the mod.)

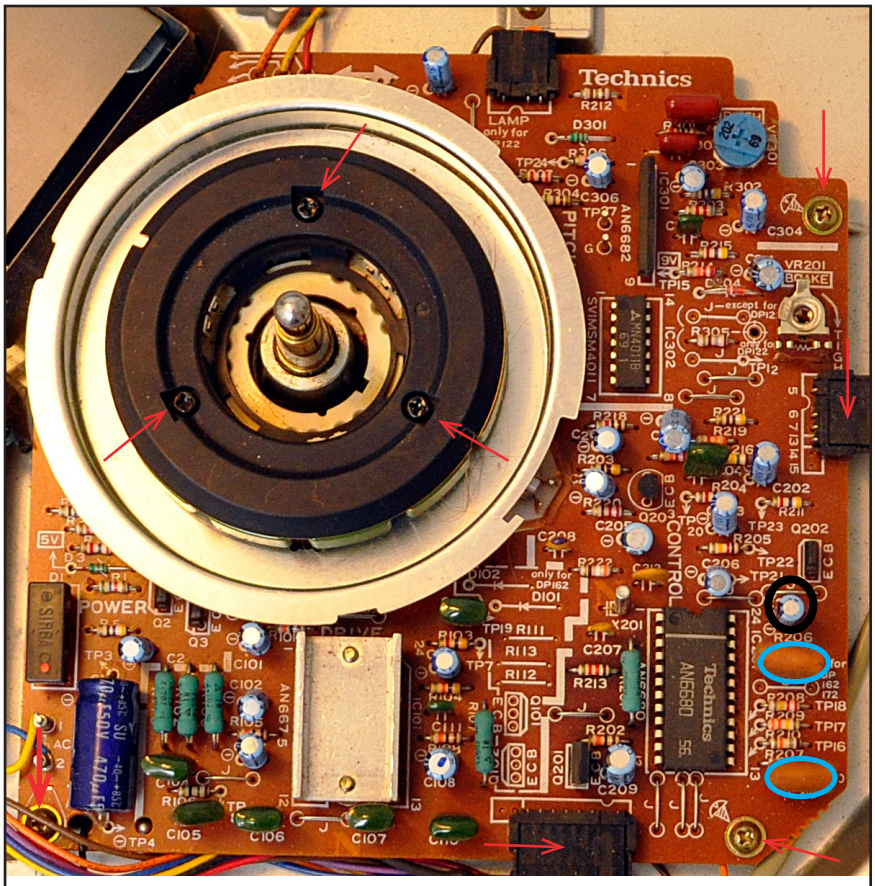


1. Install the new LED-pitch board.
Note that the LED is not centered on the board. Where the LED is closest to the edge shuld also be closest to the fader.

2. Put the wire going from the new LED-board trough the hole going to the other side. Its easier if you place the turn-table on its side.

3. Reassemble the pitchboard.
Make sure the new LED is placed centered in the square hole. Its also easiest to have the turntable on its side so you can see that it fits good on the other side.

4. Put the base back and reassemble everything.



1. Remove the connector to the pitch fader and the buttons.

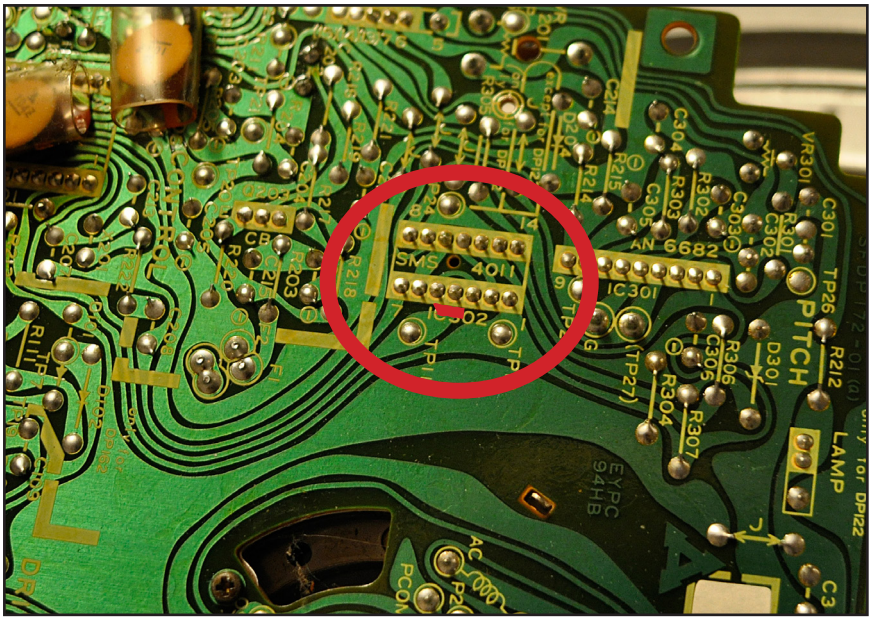
2. Remove the three screws holding the PCB.

3. Remove the three screws holding the stator. Also remove the plastic cover.
(Be a little careful so you dont destroy the thin wires on the inside of the stator.)

4. Flip the PCB over and meanwhile remove the spindle.

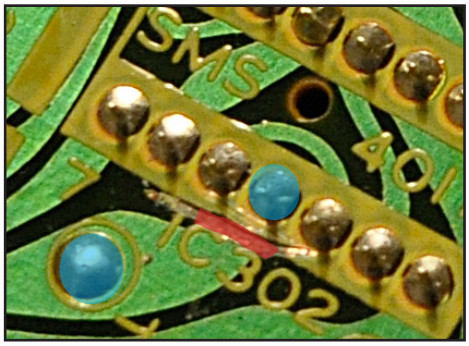
5. Desolder C210 and C211 and replace it with the two capacitors (the blue ones) included with the kit.

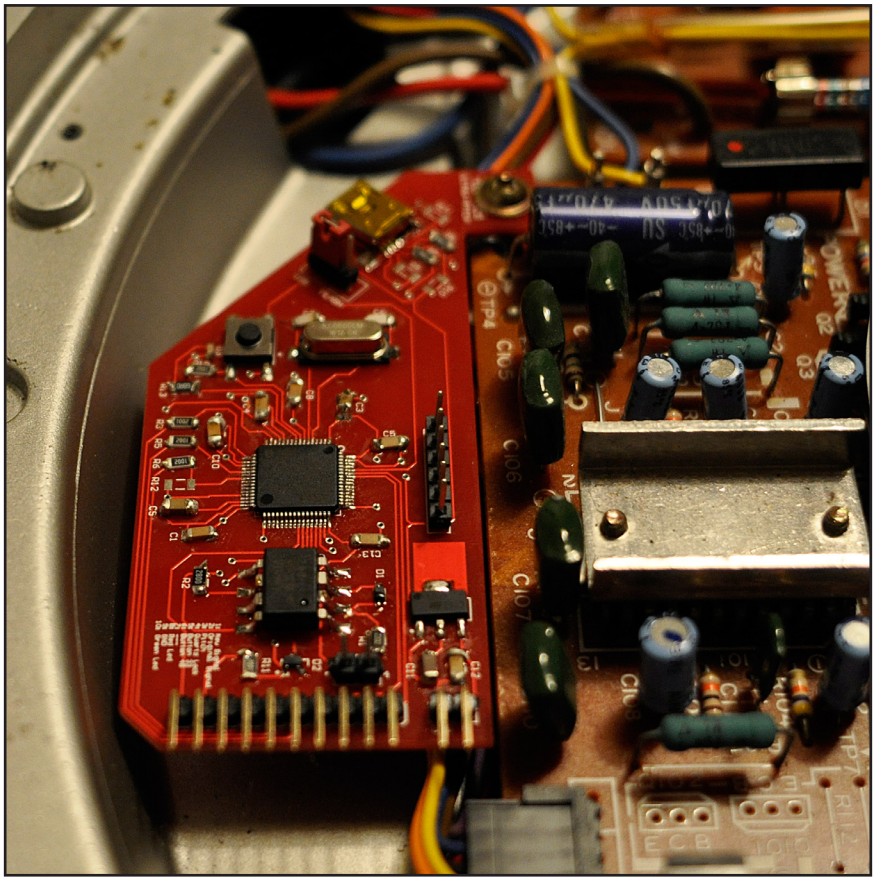
6. Remove C212 and replace it with the black capacitor included in the kit. Make sure you place the stripe (minus pole) on the capacitor in the same way it was mounted before.
(Minus is facing the stator.)



1. Cut the trace like shown in the picure below.
(Between Pin 4 on IC302 and TP11)

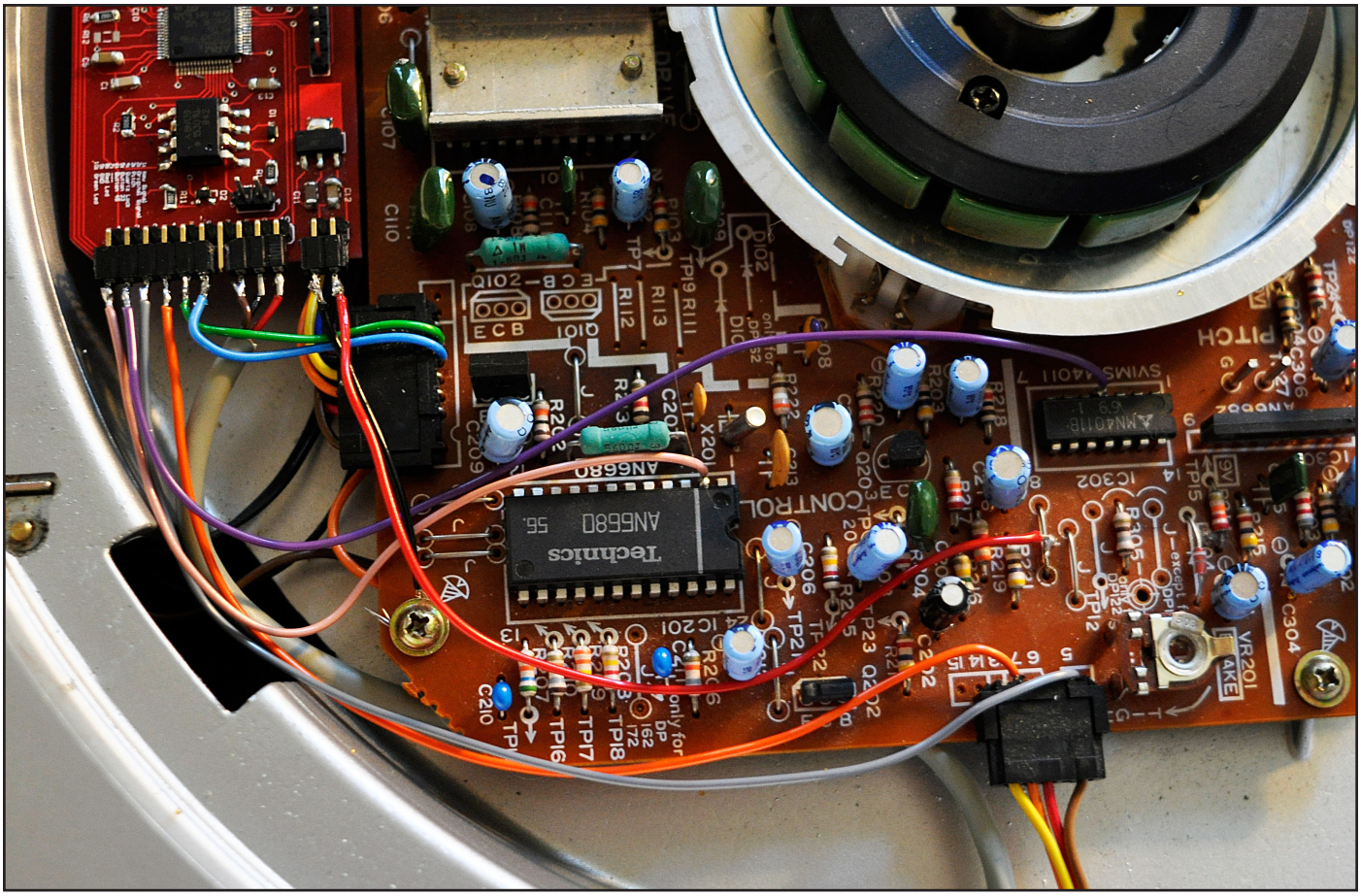
2. If you have a multimeter check that Pin 4 and TP11 are not connected anymore





1. Reassemble the PCB and put the connectors and screws back except the one used for mounting the mod-PCB in the next step.

2. Mount the mod-PCB as shown. Put the ground ring on top of pcb when mounting it with the screw.

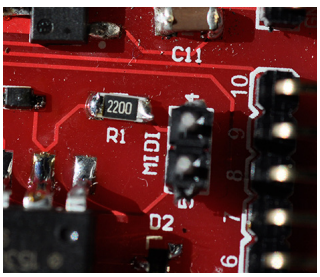


Left is just to solder all the cables to the PCB.

1. Pink:	Pin 2 on IC201
2. Purple:	Pin 4 on IC302
3. Grey:	Pin marked “5” on the pitch fader connector
4. Orange:	Pin marked “7” on the pitch fader connector
5. Green:	Pin 2 on the button connector
6. Blue:	Pin 3 on the button connector
7. Black	Cable coming from the new LED-board (not shown here)
8. Brown(Black)	Cable coming from the new LED-board
9. Black	Cable coming from the new LED-board
10. Red	Cable coming from the new LED-board

Red (+)	The bridge next to R221
Black (GND)	I fastened it under the PCB screw. You can use what ever ground connection you like.

MIDI (optional)	Yellow to pin 4 on the DIN connector and purple to pin 5



It is up to you how to install the MIDI connector. Either just pull a cable trough the base or install a connector. I would say that a good place is next to the power cable in the base. There is a small hole that you can enlarge and use.