

## Black Shiga (MKII) mods

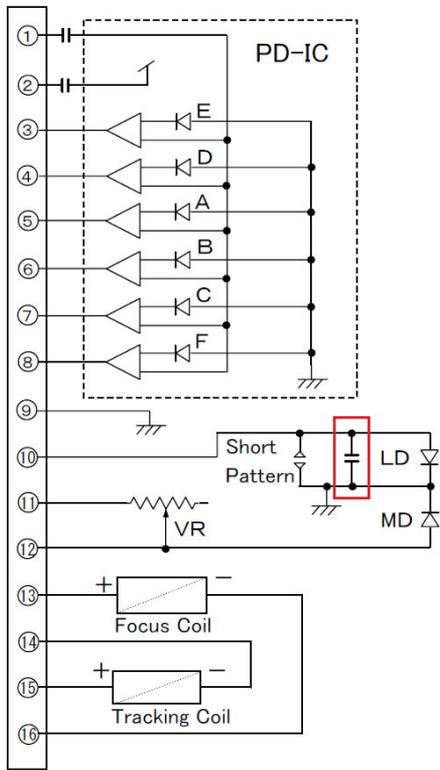
The following modification improves the laser operation of the SFP101N-16P Sanyo CD mechanic.

SFP101N-16P is a very good CD mechanic, but this can be improved further with a simple trick. Modification is simple but requires attention and a steady hand.

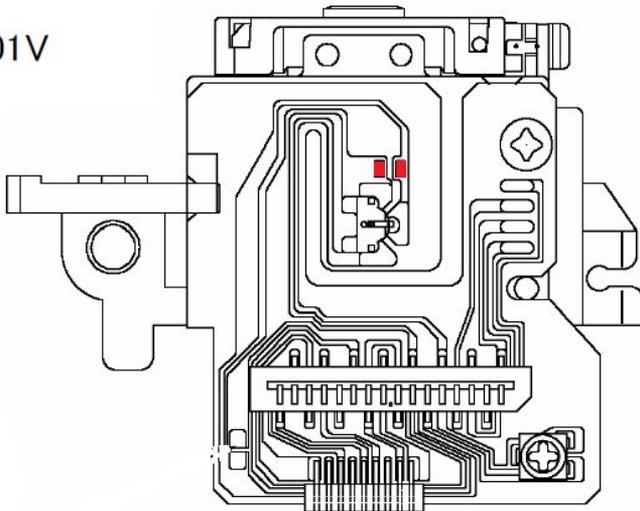
### Mod 1

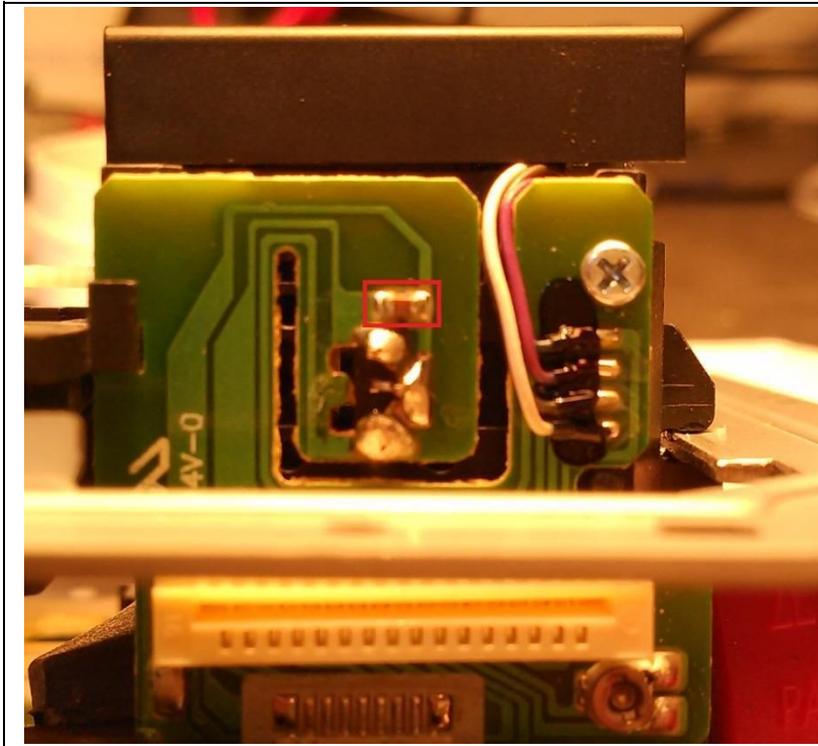
**Replace the ceramic X5R 100nF** which decouple laser diode. This is the worst MLCC type with a huge piezoelectric effect; capacity variation with voltage and temperature is also very high. As this capacitor is positioned in a very sensitive area, where vibrations and shocks are quite important, effective improvements are expected.

In below pictures I have marked with red capacitor position on schematic and board.

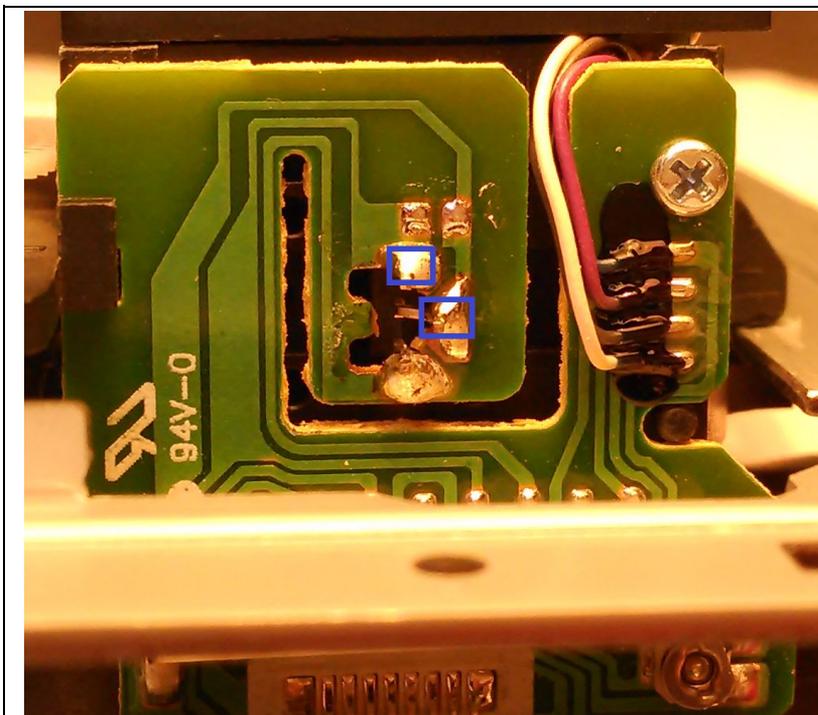


SF-P101V





This capacitor must be removed as quickly as possible without overheating the board...



Now, you'll have to pick a low ESR capacitor, small enough to be soldered on laser pins (see blue squares). Big capacitors with long leads are out of discussion.

**IMPORTANT:**

The capacitor must be soldered as close as possible to laser pins!

[MKP-1837 Metalized Polypropylene](#)

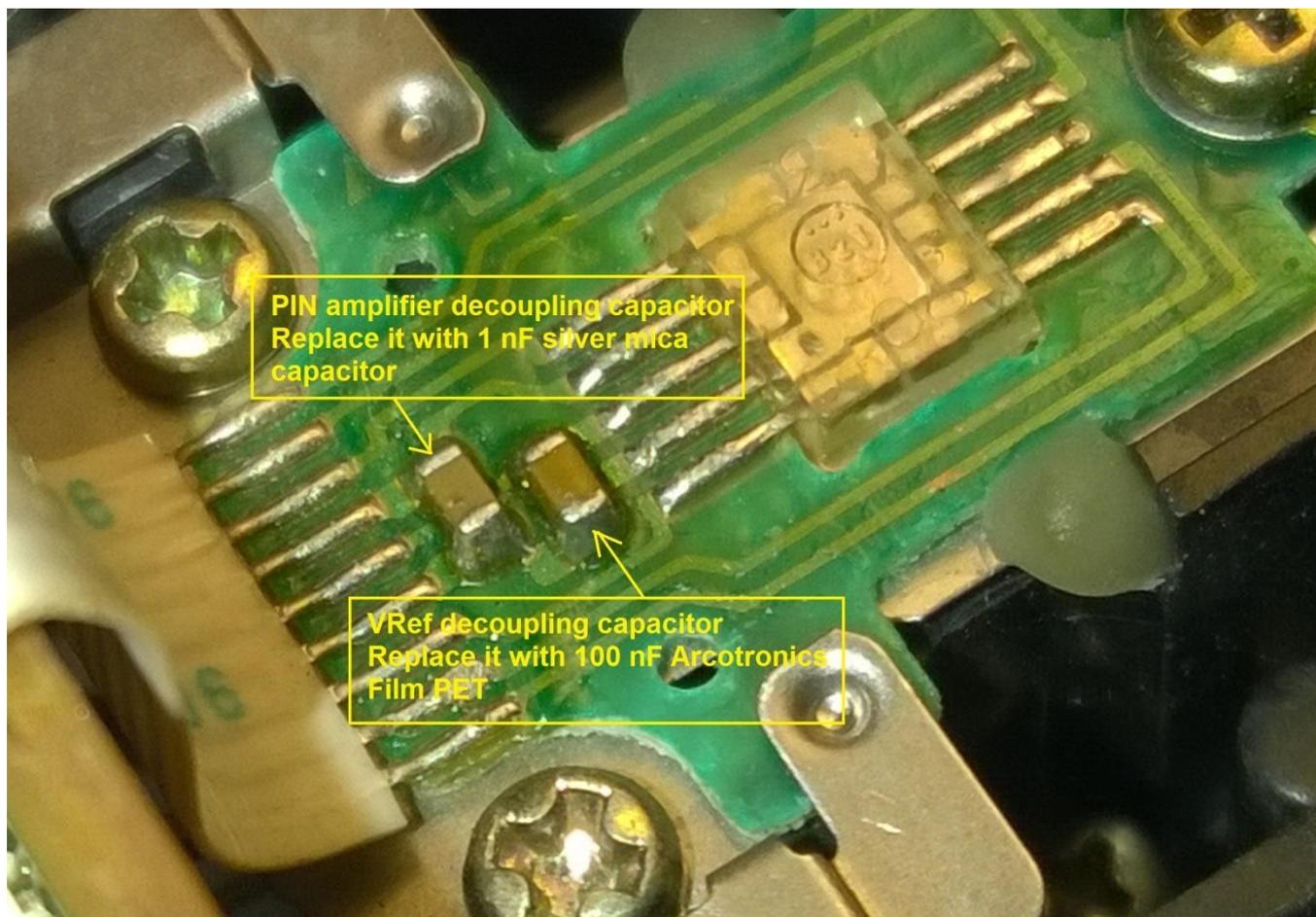
[Arcotronics PET](#)

[Wima PET](#)

[CD silver mica](#)

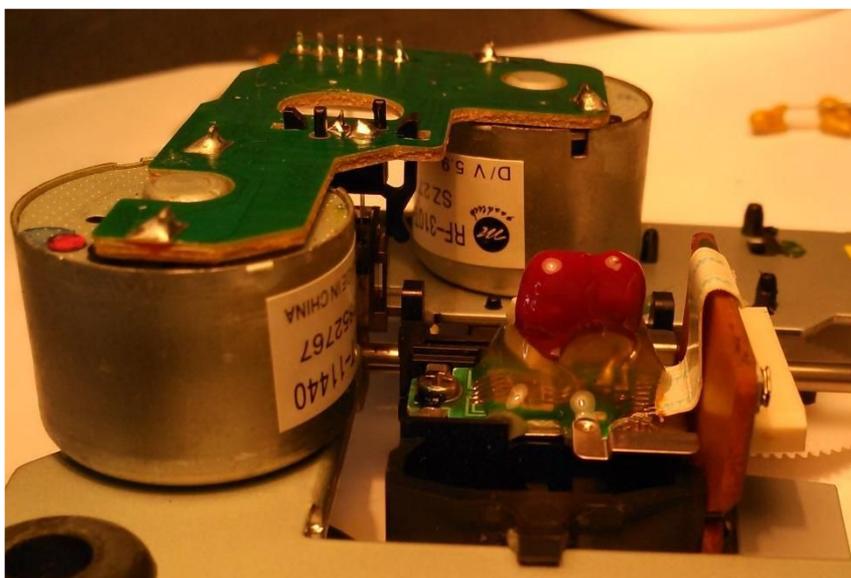
## Mod 2

Replace PIN and Vref decoupling capacitors (X5R 100nF) placed on the bottom of CD mechanic near to PIN amplifier chip. See below picture!



The new capacitors should be [Arcotronics 100nF Film PET](#) and [CD Silver mica 1nF, 100v](#).

It's recommended to secure capacitor's position with [silicon glue](#)



More

details

on

<http://www.diyaudio.com/forums/digital-source/255887-shigaclone-mkii-black-builders-thread-7.html#post3937128>