

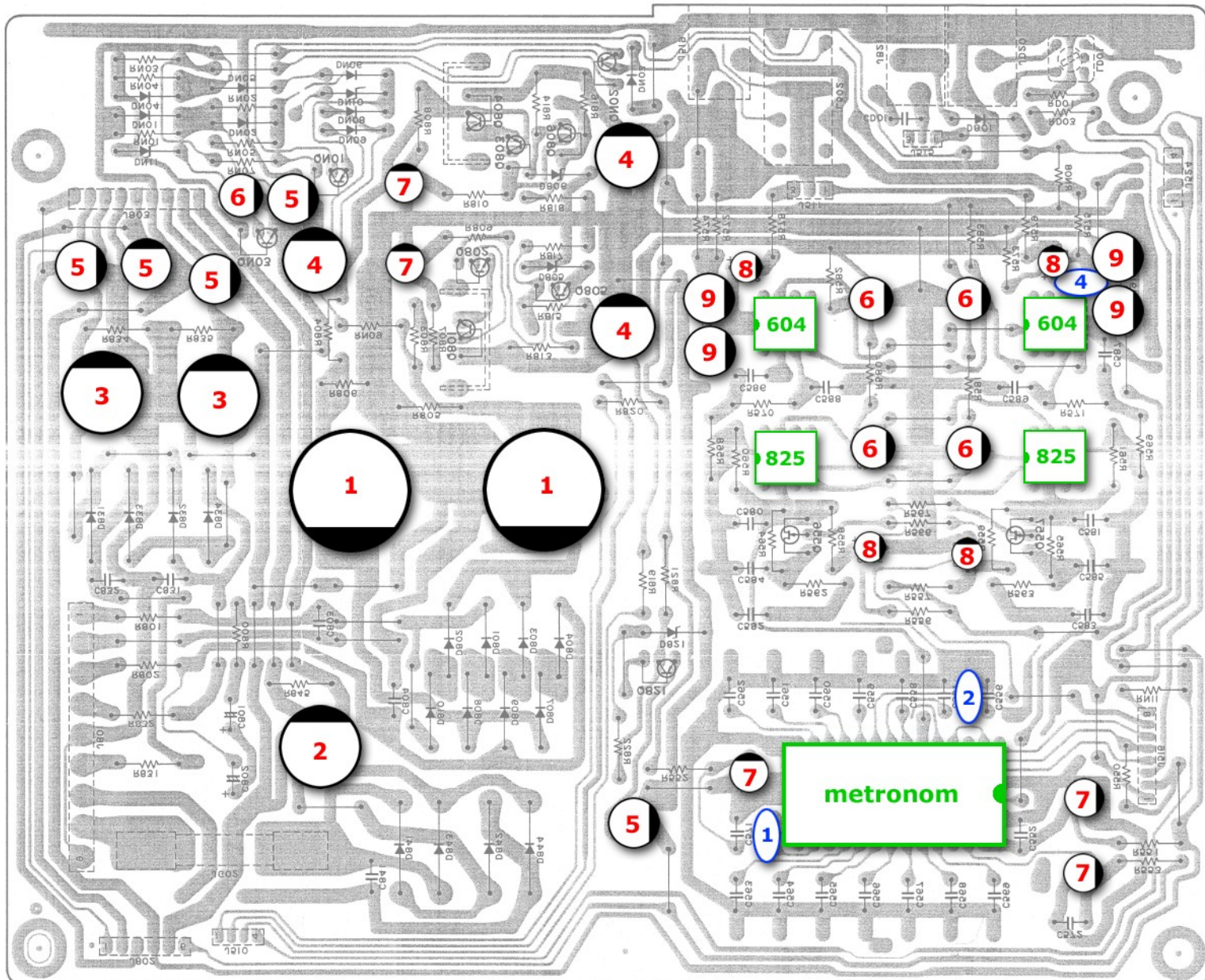
## Worksheet Revision for **Marantz CD94** metronom



The worksheet revision summarizes necessary work, settings and the addition of metronom at a glance. The work is necessary in order to maintain the functional state and to develop the full performance. Do not add anything and leave nothing. The most common bugs are fixed with this worksheet. The work requires experience and equipment. Depending on the series, deviations in the assembly may occur - not all capacitors from the revision set must always be installed.

The revision set is to order at our Website:

**<https://dindiki.com/?revision#Marantz-CD94>**



## Analog PP16

- 1** 2x 6800/35 nichicon "Gold Tune"
- 2** 1x 6800/25 KH nichicon
- 3** 2x 1000/25 FC Panasonic
- 4** 3x 470/50 FM Panasonic
- 5** 5x 220/25 FM Panasonic
- 6** 5x 100/25 FM Panasonic
- 7** 5x 47/25-35 FM/FC Panasonic
- 8** 4x 10/50 FR/FC Panasonic
- 9** 4x 220/25 FM Panasonic \*

\* There are two polar output capacitors per stereo channel connected in series **9**.

If desired, two polar can be exchanged for one bipolar.

The bipolar is attached to the outer poles of the two polar ones.

To reduce microphonic effects I recommend to use a 22µF bipolar

On some boards is a circuit error,

the cable bridge to the inner pins of the old polar coupling capacitors must be removed there **4**

## OP-amp

2x sinle OP-amp 604

2x single OP-amp 825

## metronom socket

1. desolder the TDA1541
2. solder in place the metronom socket \*
3. remove capacitor C570 **1**
4. remove Q537 on Demodul board PD16
5. insert TDA1541

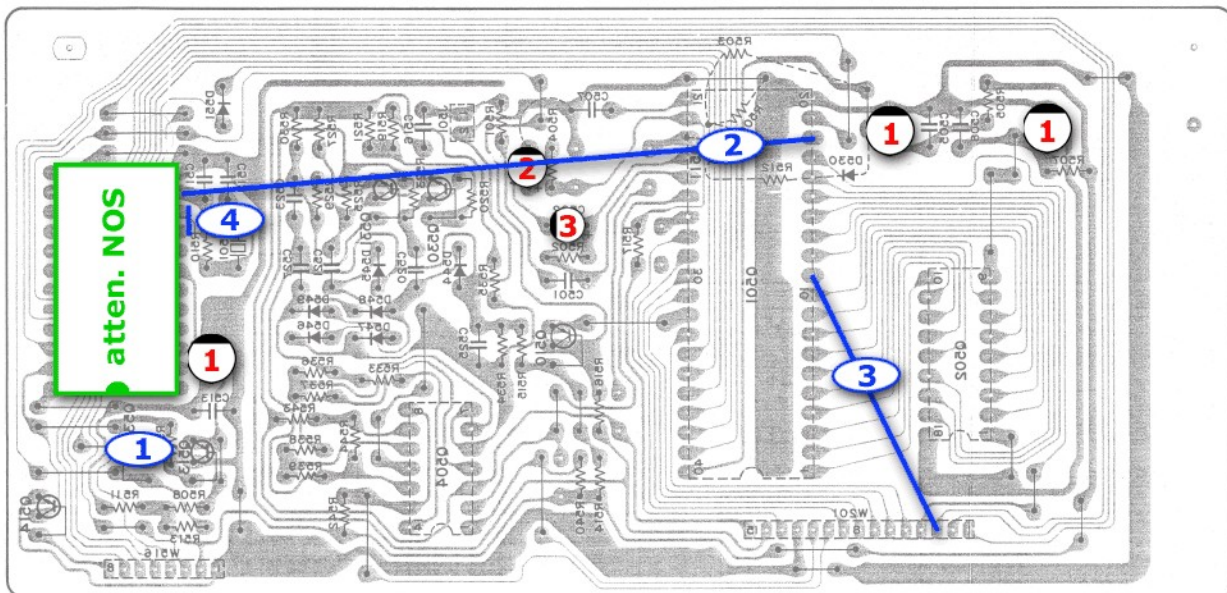
\* for TDA1541 with "A" (recomended)

Place a soldering point at the bottom of the metronom before  
- marked with "bridge A-type".

- interrupt the conductor path between pin 2 and pin 4 **2**

OP amps for audio should always be soldered firmly, the use of sockets is not recommended.





## Demodul PD16

- 1** 3x 47/25-35 FM/FC Panasonic
- 2** 1x 6,8/25-35 FM/FC Panasonic
- 3** 1x 1/250 M Panasonic

### metronom socket

additional to the steps on the Analog board PP16  
remove Q537 **1**

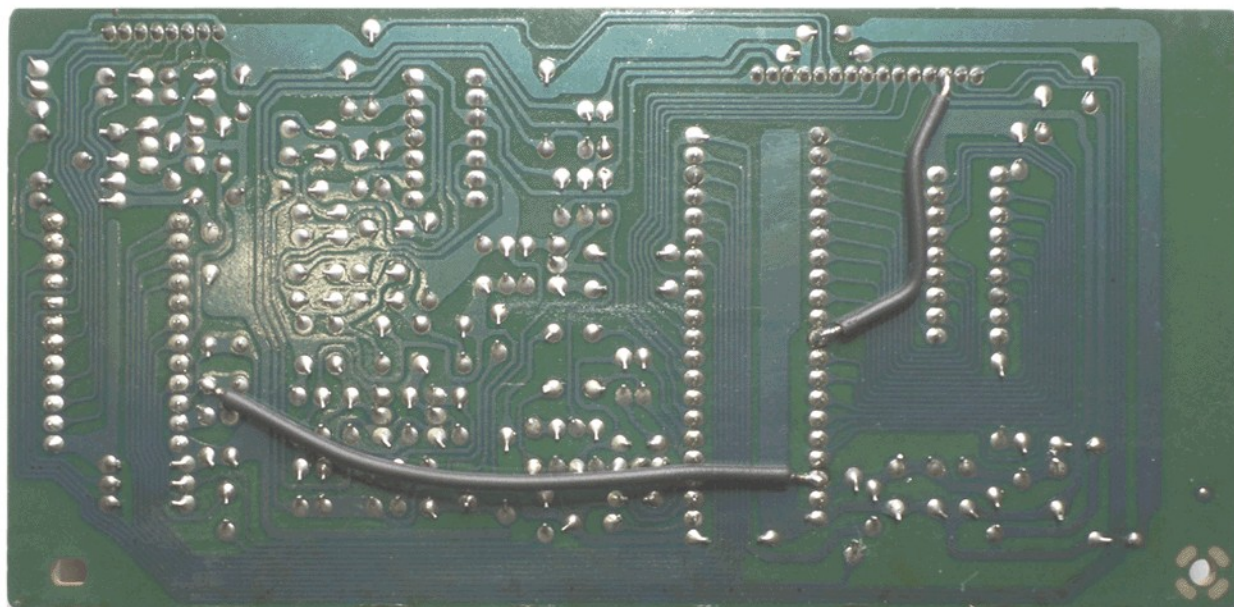
## attenuated NOS module

1. desolder SAA7220 Digitalfilter
2. solder in place the attenuated NOS module
3. Make a cable connection from attenuated NOS module  
pin11 ( XSYS ) to SAA7210 pin18 **2**

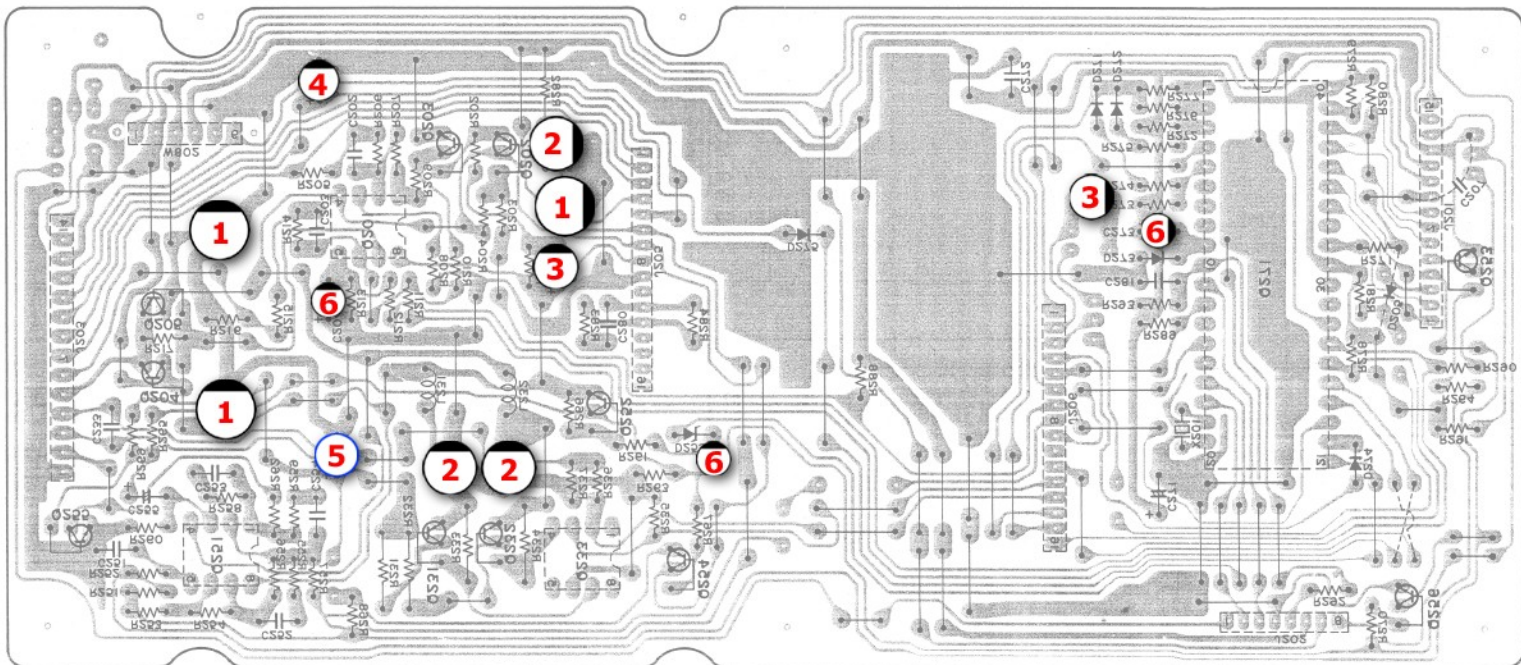
\* to use digital muting, you can connect another cable  
from SAA7210 pin11 to connector W201 **3**

\*\* if the USB-in streaming module is used instead of the attenuated NOS module,  
an additional cable connection from PIN9 to Pin10 must be made **4**

Without SAA7220 the digital output is switched off.  
More sensible than a digital output is a digital input  
to feed one of the best analog converters also externally.  
USB-in module available at: <https://dindiki.com/?streaming>





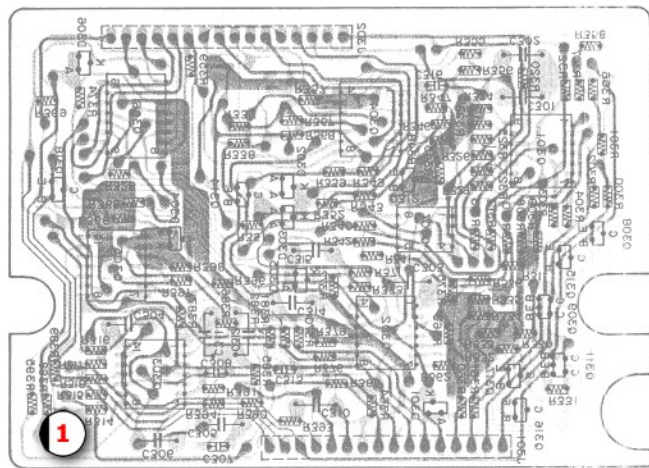


## Servo PV16

- 1** 3x 220/25 FM Panasonic
- 2** 3x 100/25 FM Panasonic
- 3** 2x 47/25-35 FM/FC Panasonic
- 4** 1x 10/50 FR/FC Panasonic
- 5** 1x 4,7/35 bipolar Panasonic
- 6** 3x 1/250 M Panasonic

## Servo sub PV26

- 1** 1x 33/50 FC Panasonic

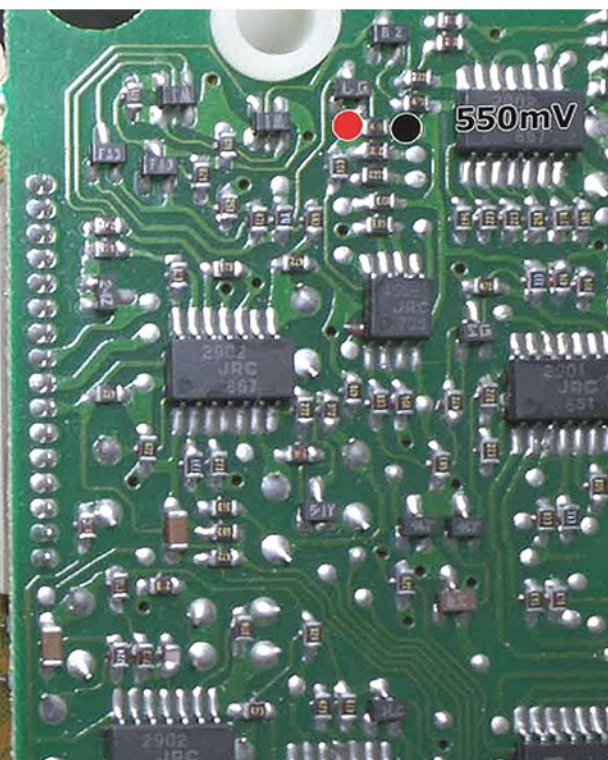
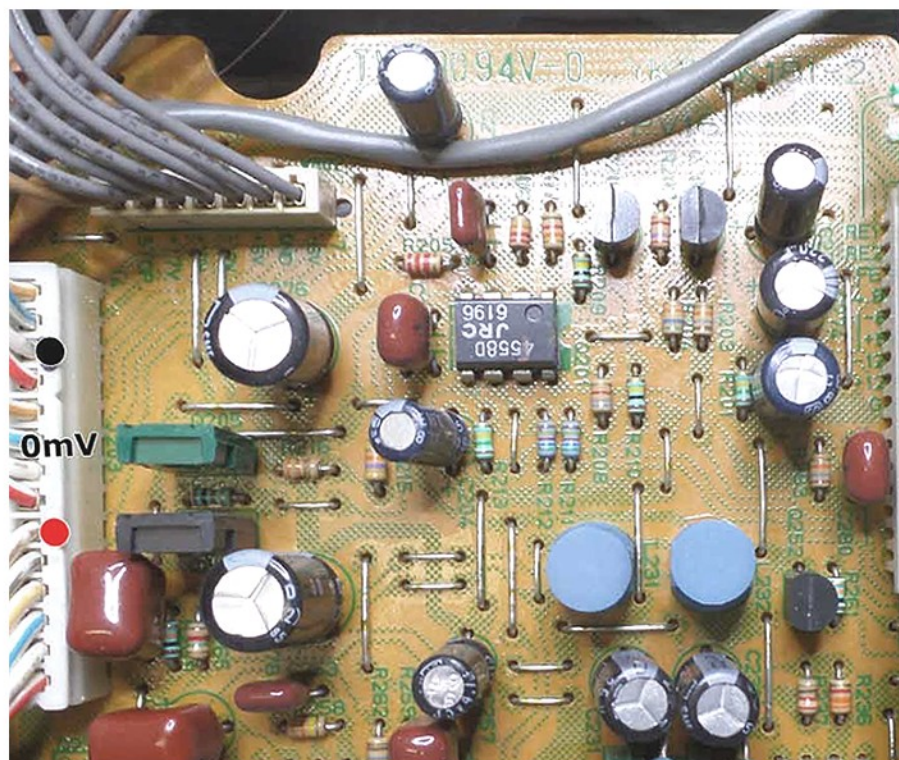


## Settings

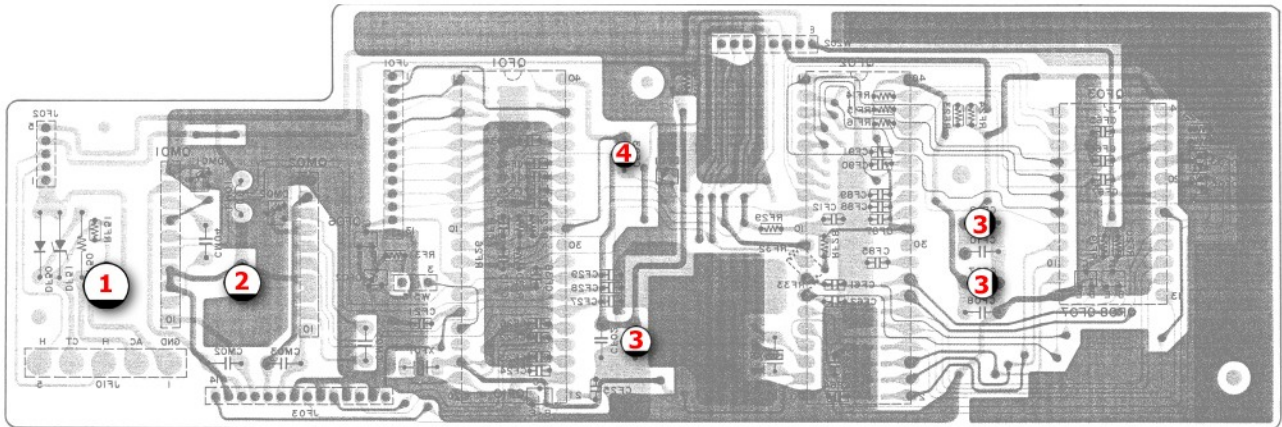
The following settings are made when playing the first song from CD.  
I recommend an original CD that is not overdriven, such as a classical CD from a renowned label.

Measuring points focus height: 0 mV

Measuring points laser voltage: 550 mV

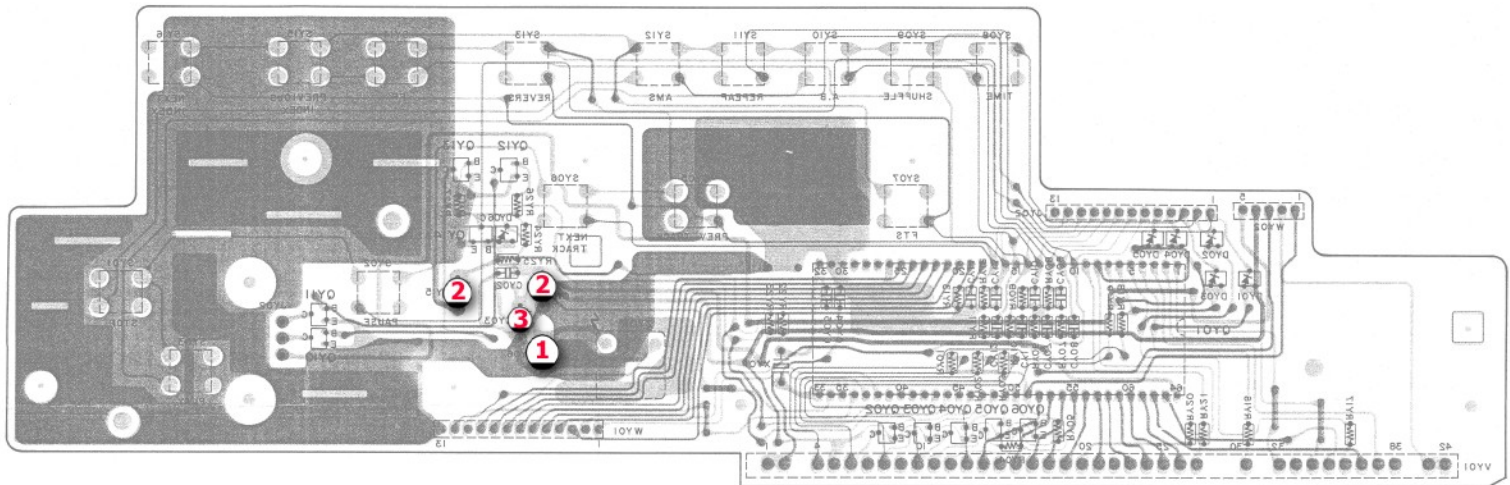






## Feature PM16

- 1** 1x 100/25 FM Panasonic
- 2** 1x 47/25-35 FM/FC Panasonic
- 3** 3x 10/50 FR/FC Panasonic
- 4** 1x 1/250 M Panasonic



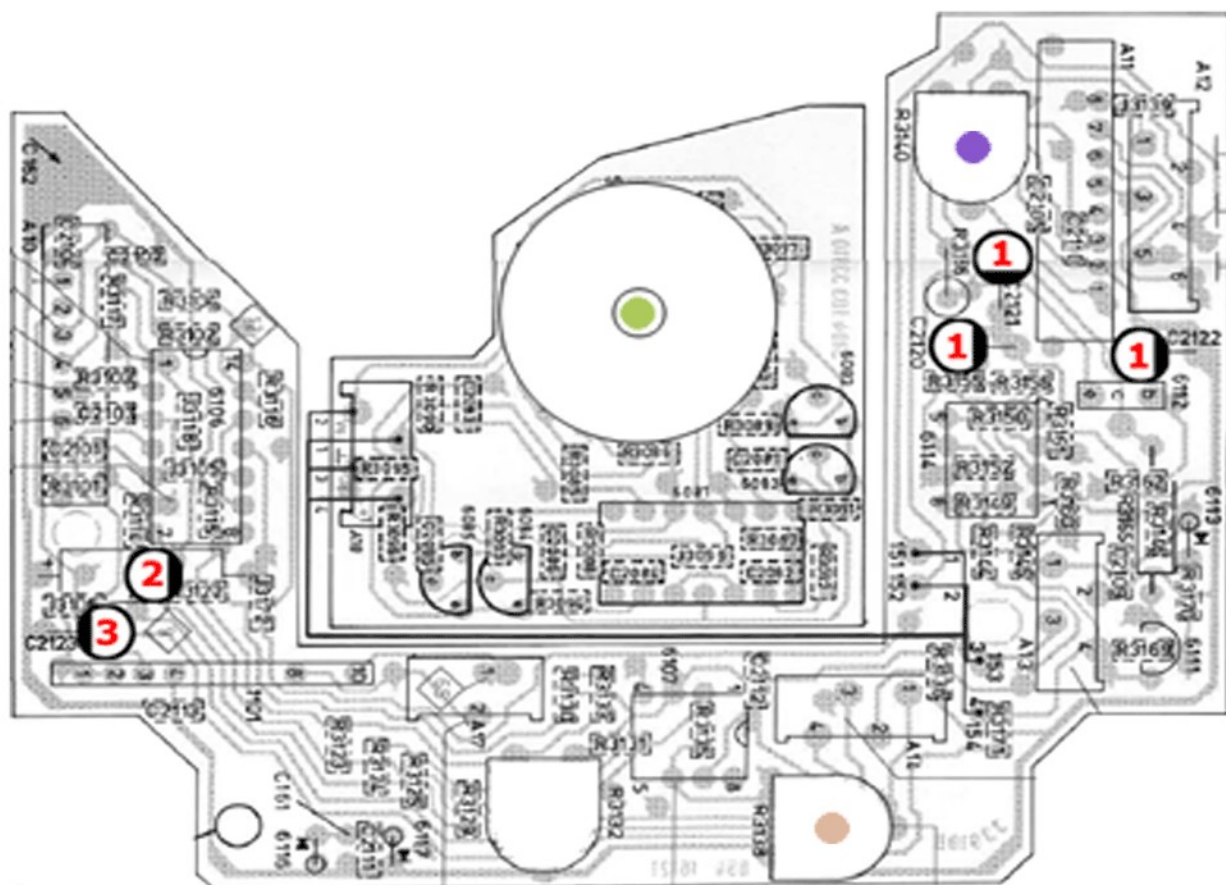
## Display PY16

- 1** 1x 47/25-35 FM/FC Panasonic
- 2** 2x 10/50 FR/FC Panasonic
- 3** 1x 1/250 M Panasonic



## Headphone PR16

- 1** 2x 100/25 FM Panasonic
- 2** 2x 47/25-35 FM/FC Panasonic
- 3** 2x 4,7/35 bipolar Panasonic



## 6. Laserprint

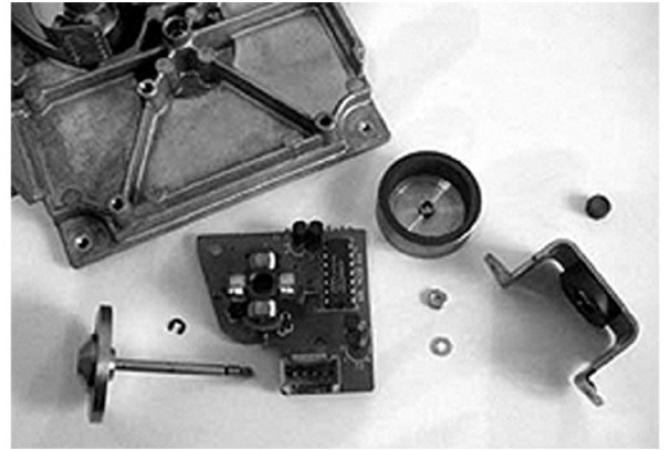
- 1** 3x 33 $\mu$ F / Laser
- 2** 33 $\mu$ F / -12V
- 3** 33 $\mu$ F / +11V

### Settings

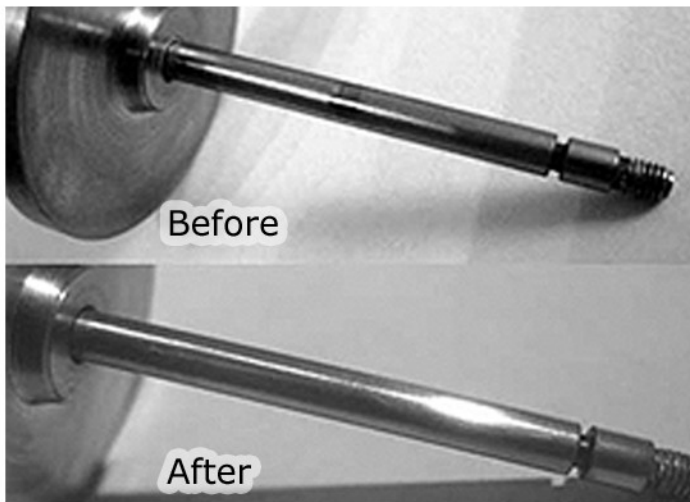
- Laser 500mV DC  
Mesurepoint: 3. Servo
- Focus DC  $\sim$  0mV DC  
Mesurepoint: 3. Servo
- Focus Gain to minimum  
Mesurepoint A, B: 3. Servo

## Hallmotor

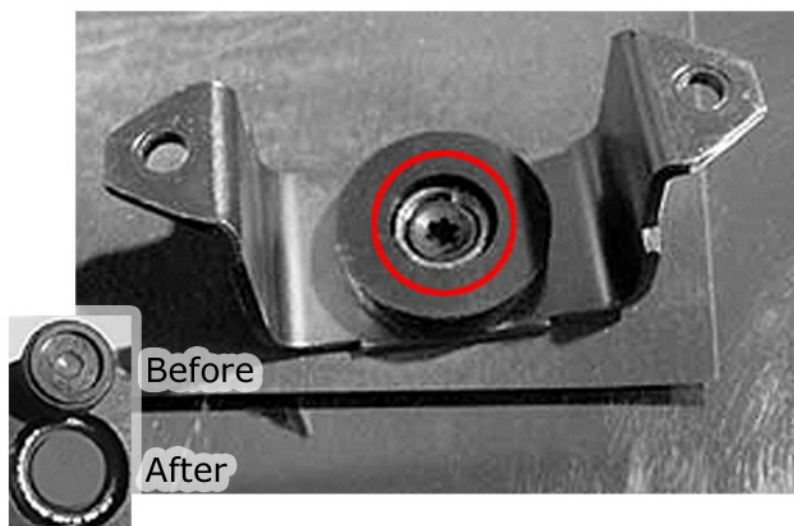
Disassemble and clean  
Fitting with 1 drop of silicone oil



1. Drive axle  
Cleaning and polishing ( toothpaste and paper )



2. Axle bearing  
Inverted screwed to plan with sandpaper

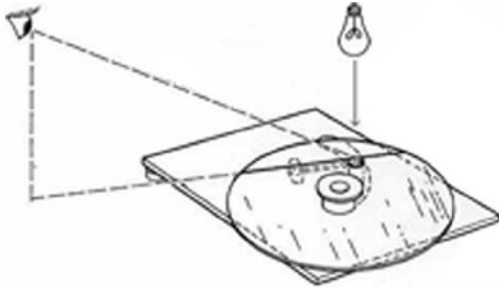




## Laserpin

Check and adjust the scanning angle

Check for straight light



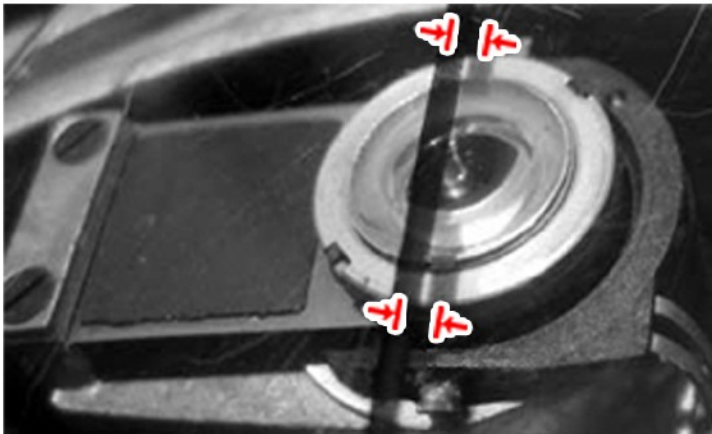
### Note

This setting is not necessary in normal cases. These only occur after replacing the laser pin or if the screws shown have been loosened.

Transparente Test-CD mit Strich erstellen  
Create transparent test CD with line



Maximum deviation of the shadow 4mm  
2 Measurements with different angles



Loosen screws to move the angle adjustment  
Ensure smooth operation of the turning arm

