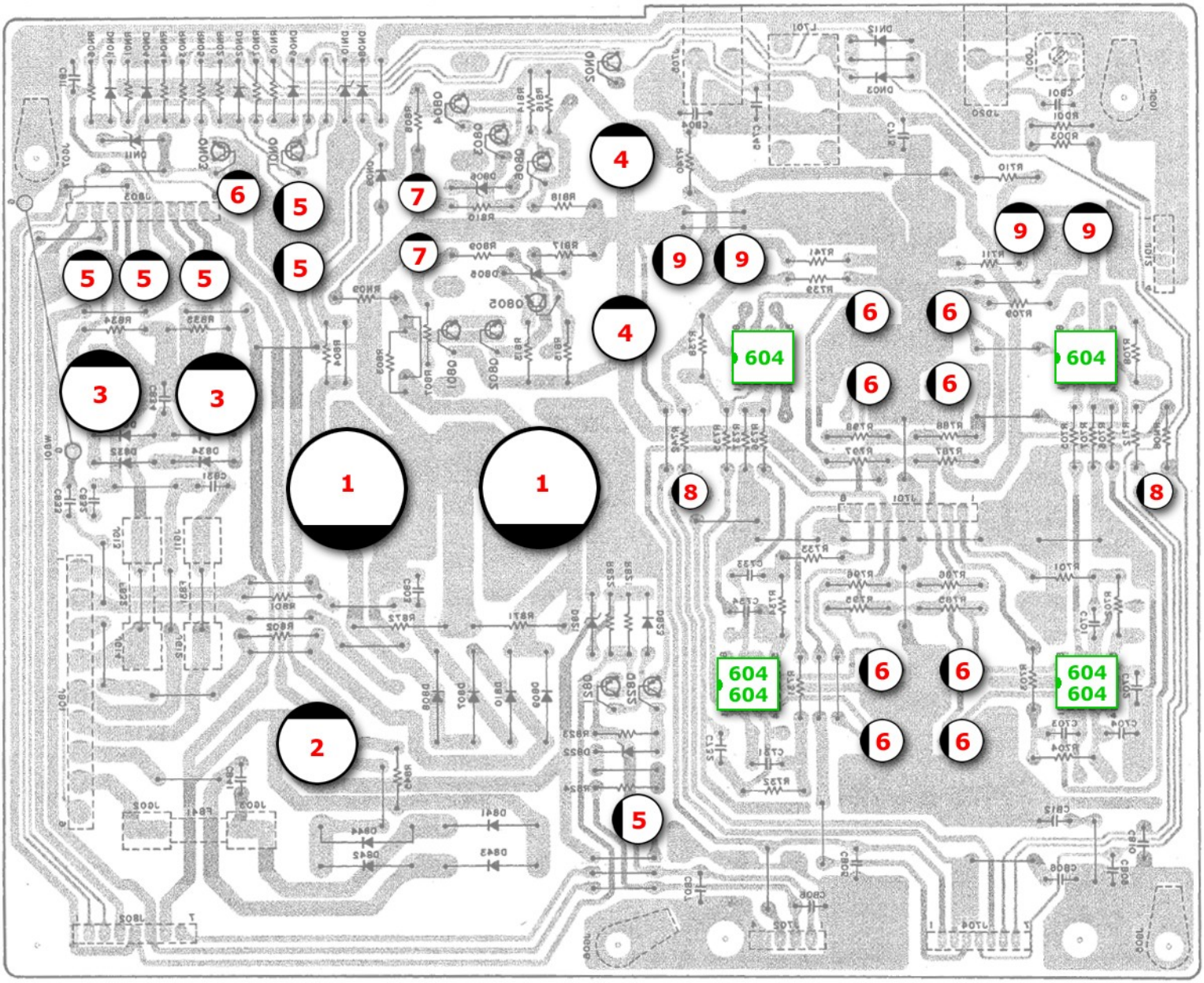
nanocamp

Workshheet Revision for Marantz CD94 MKII 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-CD94II



Analog PP16

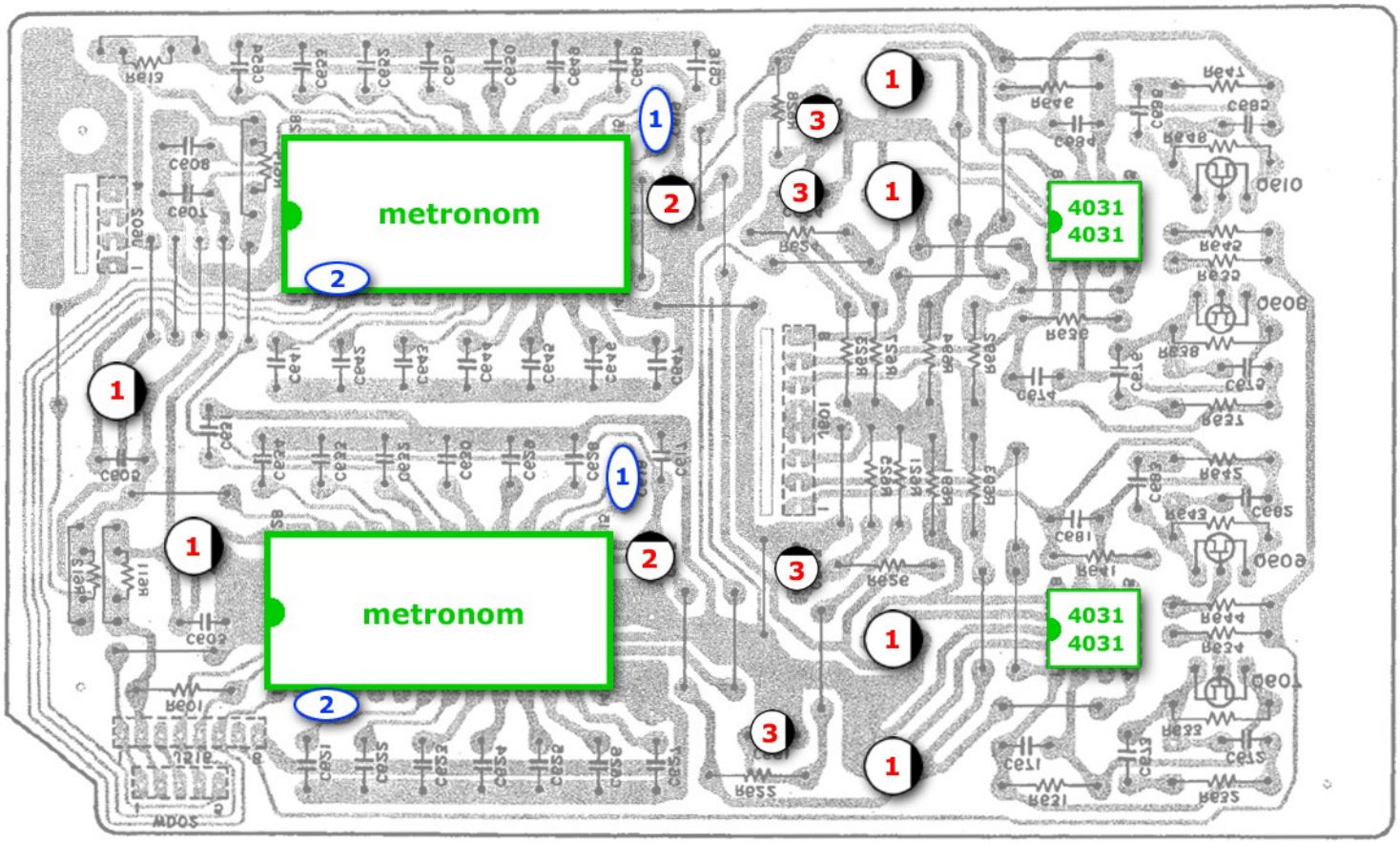
1 2x 6800/35 nichicon "Gold Tune"
2 1x 6800/25 KH nichicon
3 2x 1000/25 FM Panasonic
4 2x 470/50 FM Panasonic
5 6x 220/25 FM Panasonic
6 7x 100/25 FM Panasonic
7 2x 47/25-35 FM/FC Panasonic
8 2x 10/50 FR/FC Panasonic
9 4x 220/25 FM Panasonic *

* There are two polar output capacitors per stereo channel **9**. If desired, two polar can be exchanged for one bipolar.
The bipolar is attached to the two + poles of the polar ones.
To reduce microphonic effects I recommend to use a 22µF bipolar

OP-amp

2x double OP-amp 604-604
2x single OP-amp 604

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



DAC PP26

1 6x 100/25 FM Panasonic
2 2x 47/25-35 FM/FC Panasonic
3 4x 10/50 FR/FC Panasonic

metronom socket

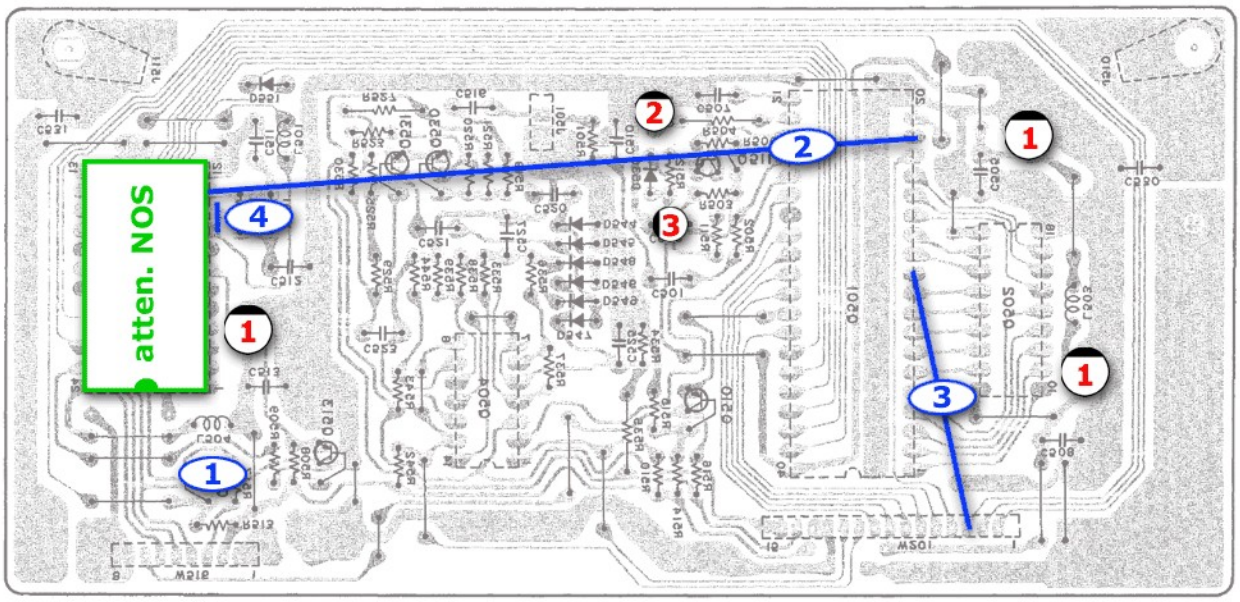
1. desolder the TDA1541
2. solder in place the metronom socket *
3. remove capacitor **1** around each TDA1541
4. remove Q537 on Demodul board PD16
5. insert TDA1541

* 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 pin2 and pin4 **2**

OP-amp

2x double OP-amp 4031-4031

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 DAC board PP26
remove Q537 **1**

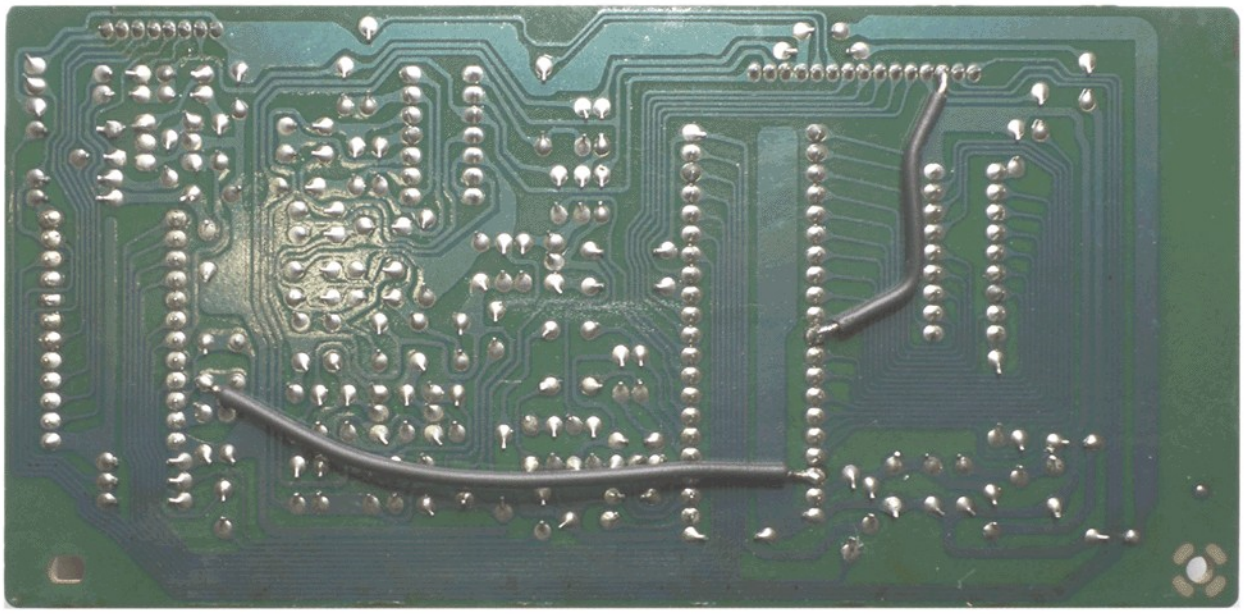
attenuated NOS module

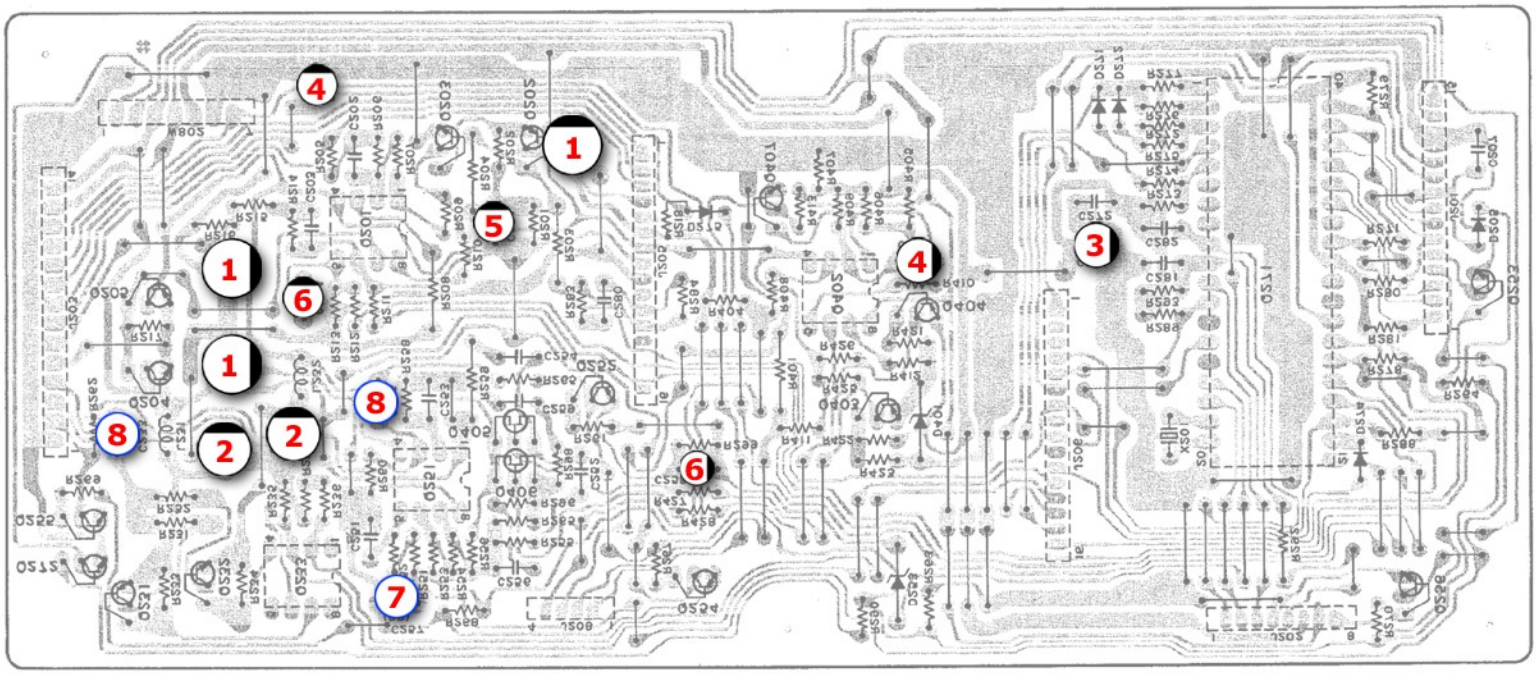
1. desolder SAA7220 Digitalfilter
2. solder in place the attenuated NOS module
3. Make a cable connection from attenuated NOS module
   pin11 (XSYS) to SAA7210 pin18 **2**

* 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**

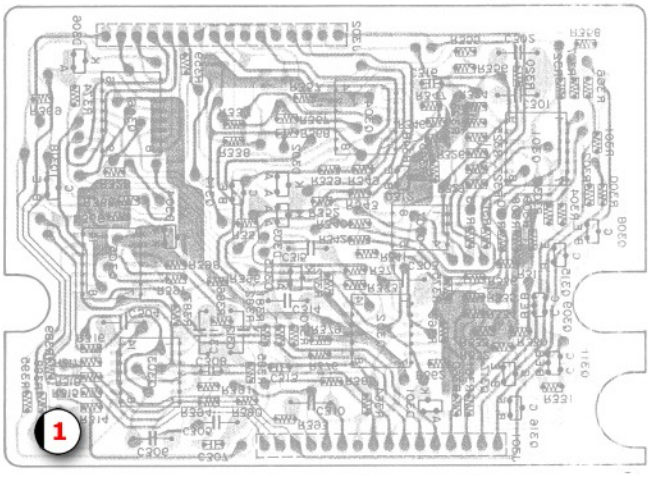
Without SAA7220 the digital output is switched off.
More sensible than a digital output is a digital input
to feed one of the best analog converters also externally.
USB-in module available at: https://dindiki.com/?streaming





Servo PV16

1 3x 220/25 FM Panasonic
2 2x 100/25 FM Panasonic
3 1x 47/25-35 FM/FC Panasonic
4 2x 10/50 FR/FC Panasonic
5 1x 2,2/50 FR/FC Panasonic
6 2x 1/250 M Panasonic
7 1x 4,7/35 bipolar Panasonic
8 2x 1/50 bipolar Panasonic



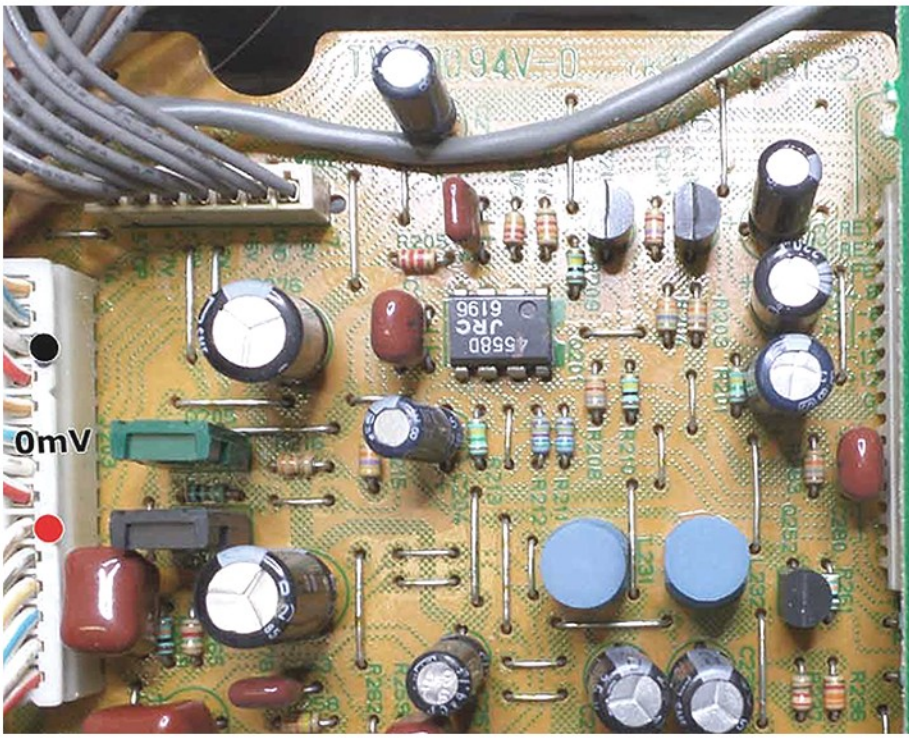
Servo sub PV26

1 1x 33/50 FC Panasonic

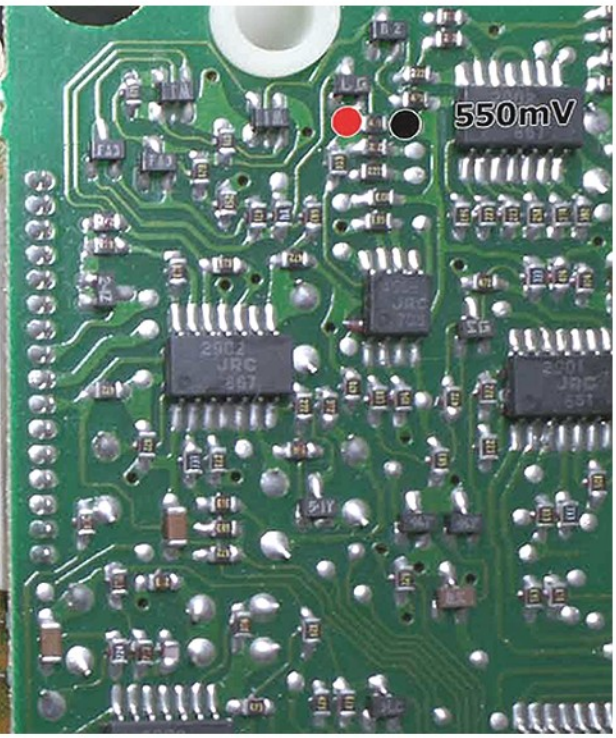
Settings

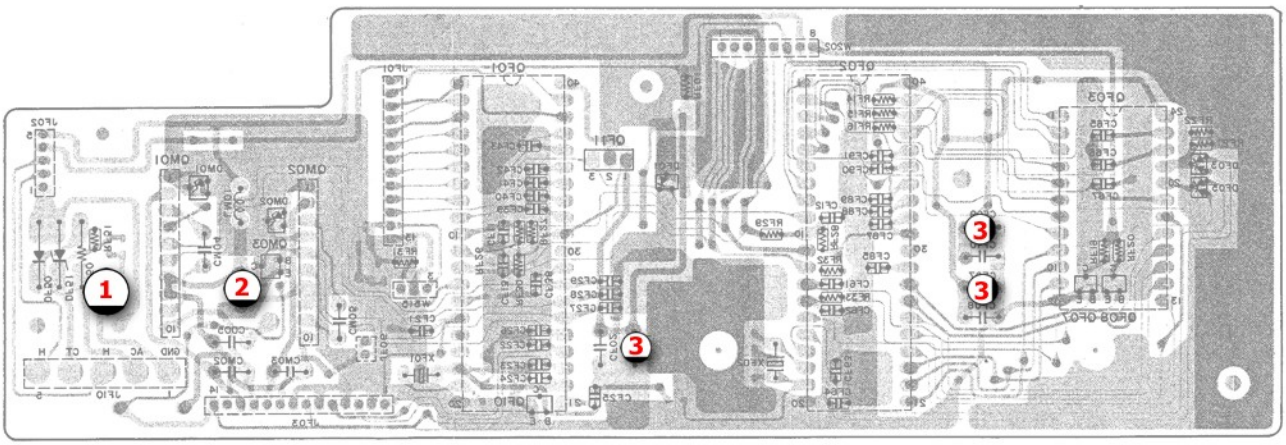
The following settings are made when playing the first song from CD.
I recommend an original CD that is not overdriven, such as a classical CD from a renowned label.

Measuring points focus height: 0 mV



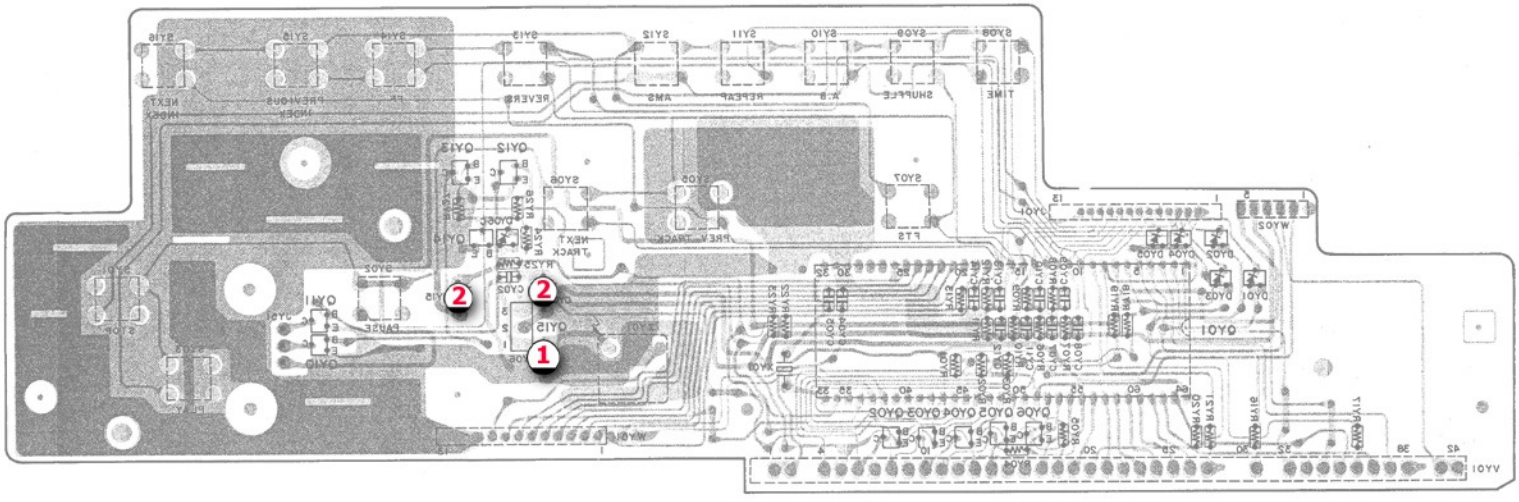
Measuring points laser voltage: 550 mV





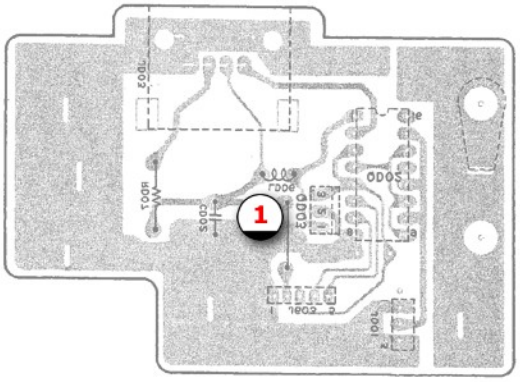
Feature PM16

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



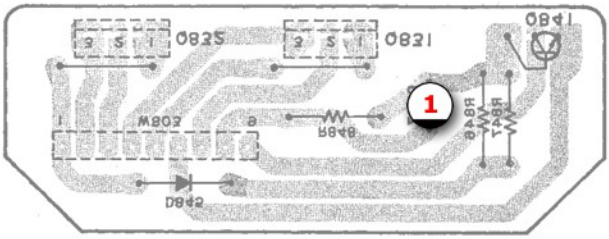
Display PY16

1 1x 220/25-35 FM/FC Panasonic
2 2x 10/50 FR/FC Panasonic



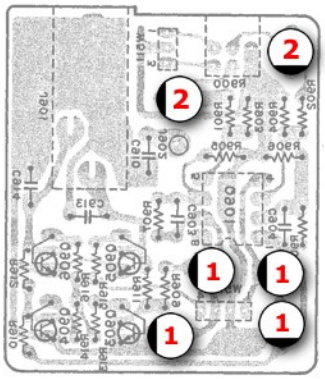
Optical out PF16

1 1x 10/50 FR/FC Panasonic



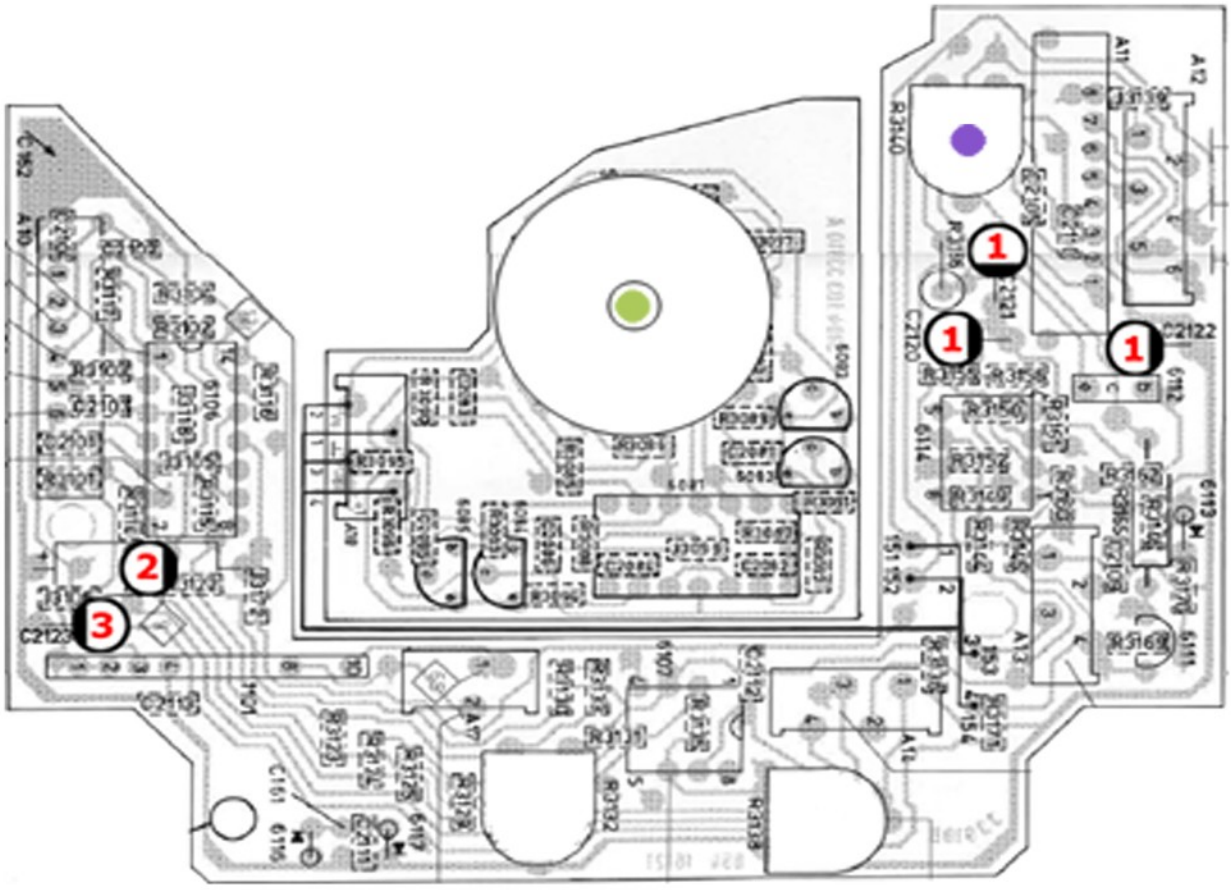
Regulator PP36

1 1x 330/50 FM Panasonic



Headphone PR16

1 4x 47/25-35 FM/FC Panasonic
2 2x 10/50 FR/FC Panasonic



6. Laserprint

1 3x 33µF / Laser
2 100µF / -12V
3 100µF / +11V

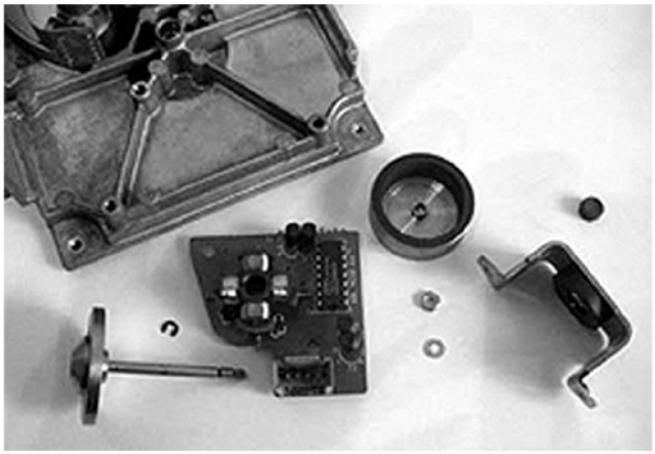
Settings

● Laser 550mV DC
Mesurepoint: Servo sub PV26

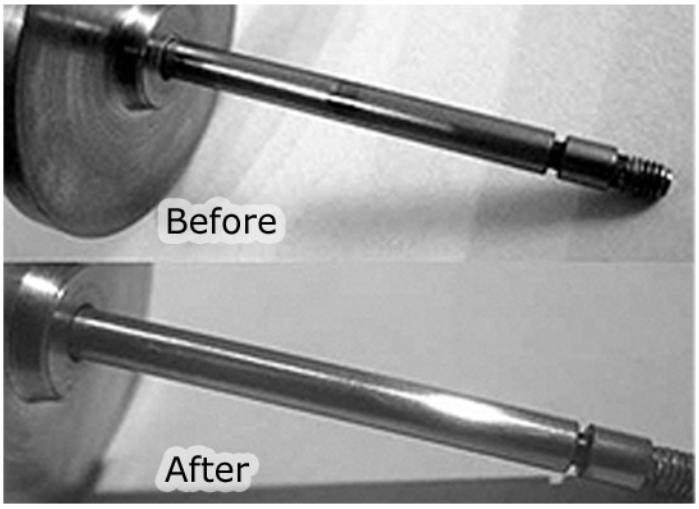
● Focus DC ~ 0mV DC
Mesurepoint: Servo PV16

Hallmotor

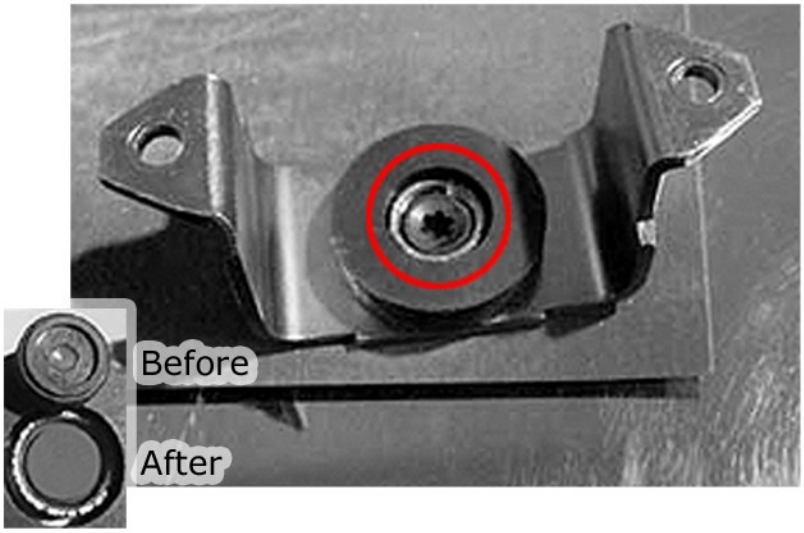
Disassemble and clean
Fitting with 1 drop of silicone oil



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



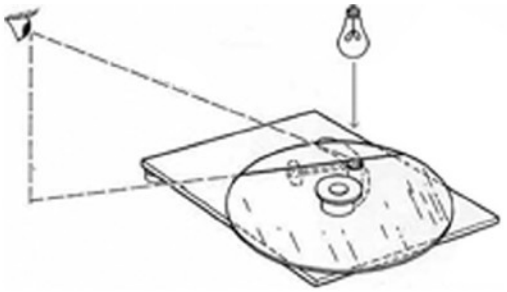
2. Axle bearing
Inverted screwed to plan with sandpaper



Laserpin

Check and adjust the scanning angle

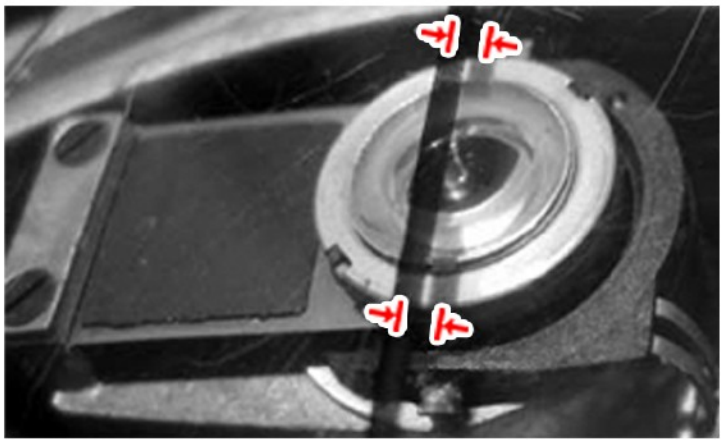
Check for straight light



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