nanocamp

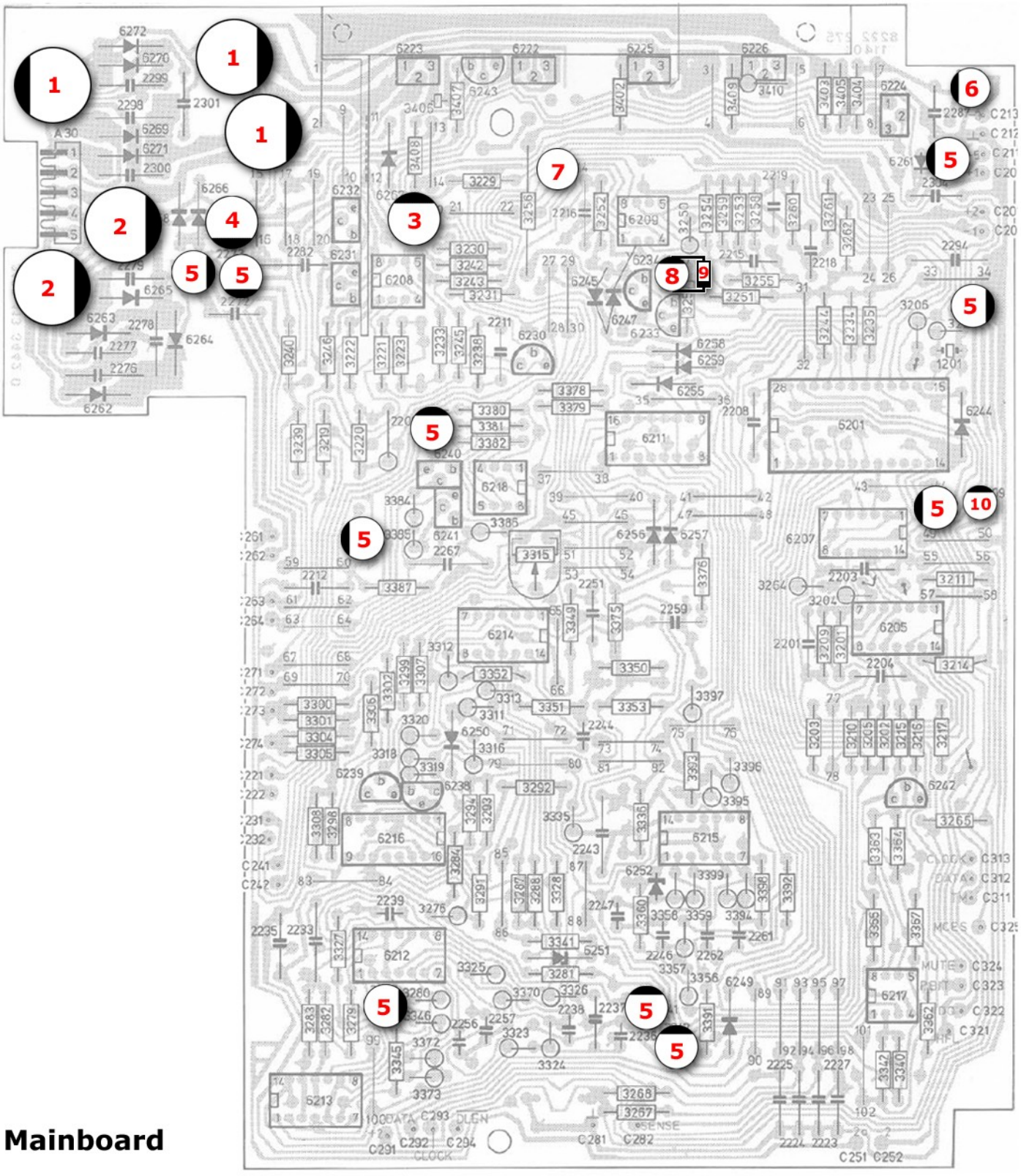
Workshheet Revision for Philips CD 100 metronom

Philips CD 101, Marantz CD63, Grundig CD30, Magnavox FD1000

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:

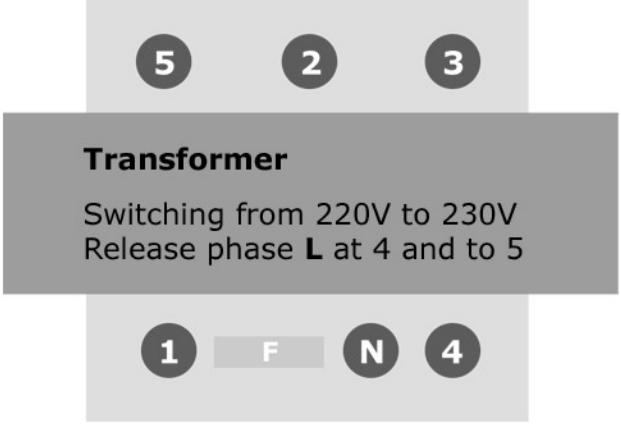
https://dindiki.com/?revision#Philips-CD100

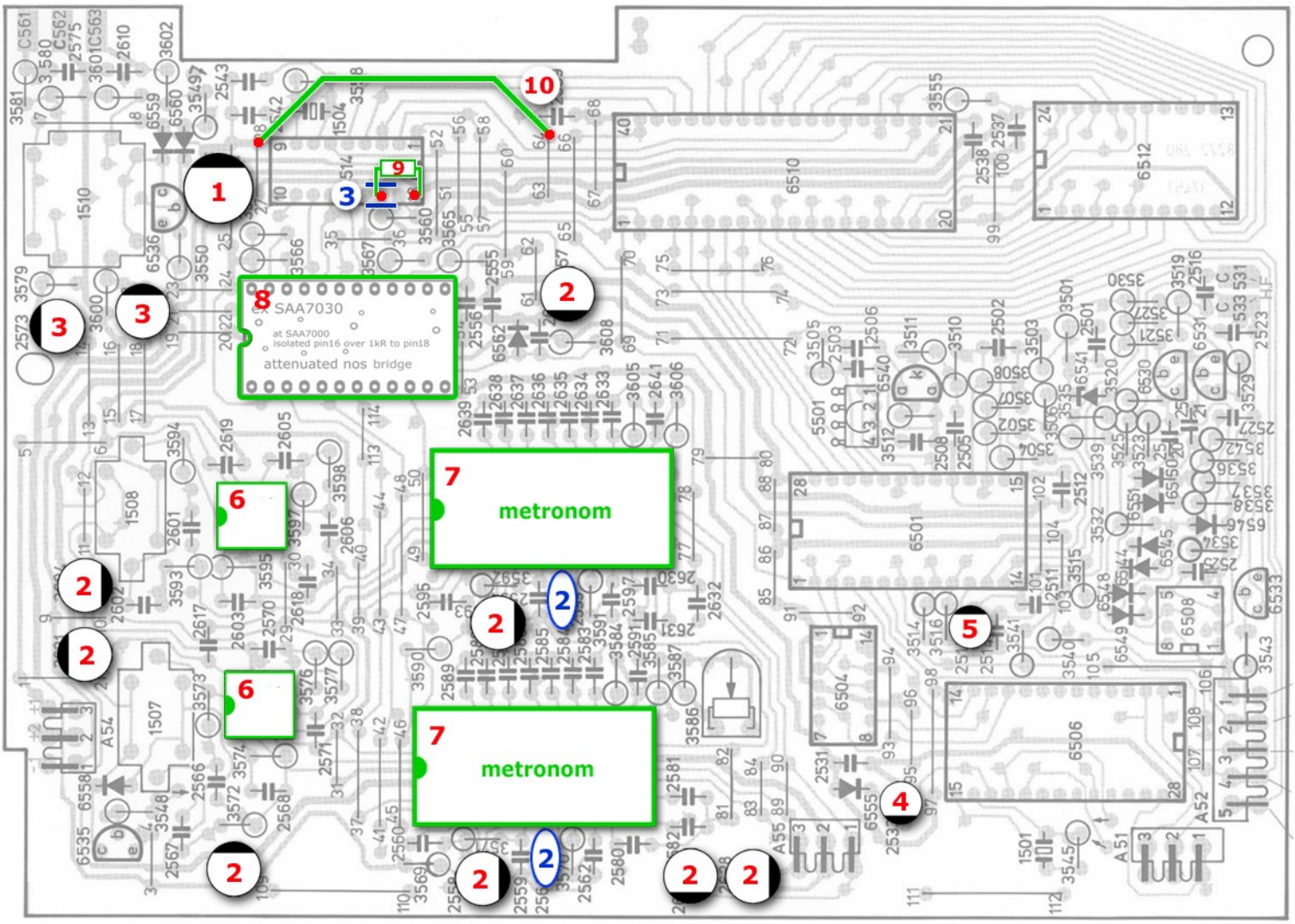


Mainboard

1 3x 2200/16 FC Panasonic
2 2x 1500/25 FM Panasonic
3 1x 100/50 FC Panasonic
4 1x 100/25 FM Panasonic
5 10x 33/35 FM Panasonic
6 1x 22/50 FM Panasonic
7 1x 15 bipolar *on older boards a polar may be changed
8 1x 3.3/50 FC Panasonic *on older boards change from 15µF
9 1x ZF7.5 Diode (parallel with **8**) *
10 1x 1/50 M Panasonic

*If there is a 3,3µF **8**, there will be a ZF7.5 **9** already nearby.





Analog board

1 1x 150/50 FM Panasonic *1
2 8x 22/50 FM Panasonic for **CD100** / 8x 47/25 FM Panasonic for **CD101**
3 2x 22/50 FM Panasonic for **CD100** / 2x 47/25 FM Panasonic for **CD101** *2
4 1x 1/50 M Panasonic
5 1x 1/50 M Panasonic *3

*1 not on all boards
*2 polar output capacitors may exchanged for bipolar ones, a 22µF bipolar electrolytic is recomended, no foils
*3 not on all boards. An existing 100n foil may exchanged with the 1/50 electrolytic

OP-amp

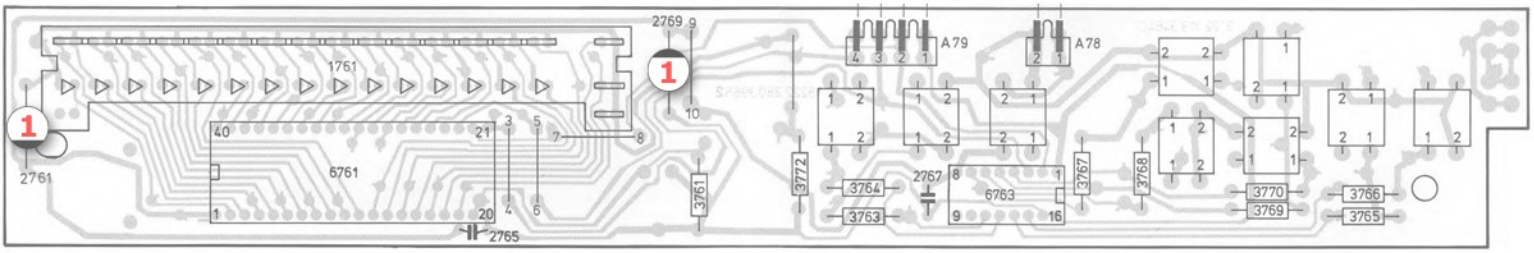
6 2x OP-amp

metronom modules

7 unsolder existing sockets or TDA1540
soldering in the metronom modules
remove two film capacitors **2**
insert the TDA1540 into the metronom modules

attenuated NOS bridge no oversampling option

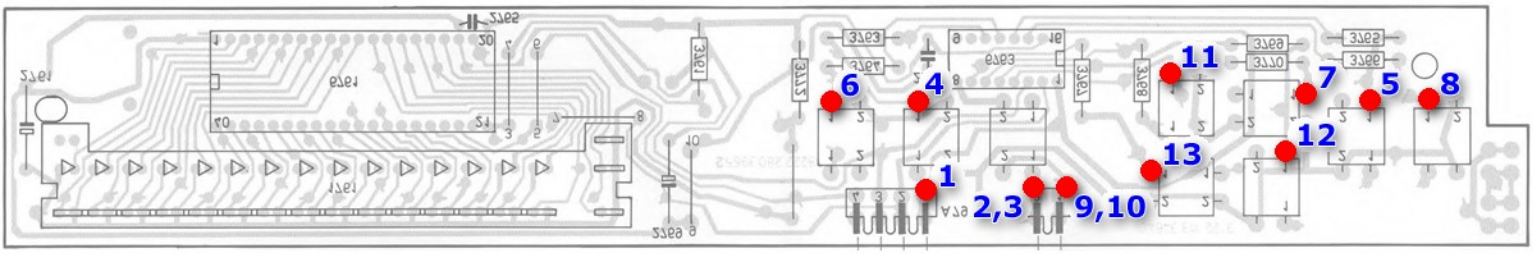
8 unsolder SAA7030
soldering in the attenuated NOS bridge
at SAA7000 isolate PIN16 by cutting the traces at both sides **3**
9 solder a 1k Ohm resistor from PIN16 to PIN18 on the underside
10 solder a cable from one wire bridge to the next one



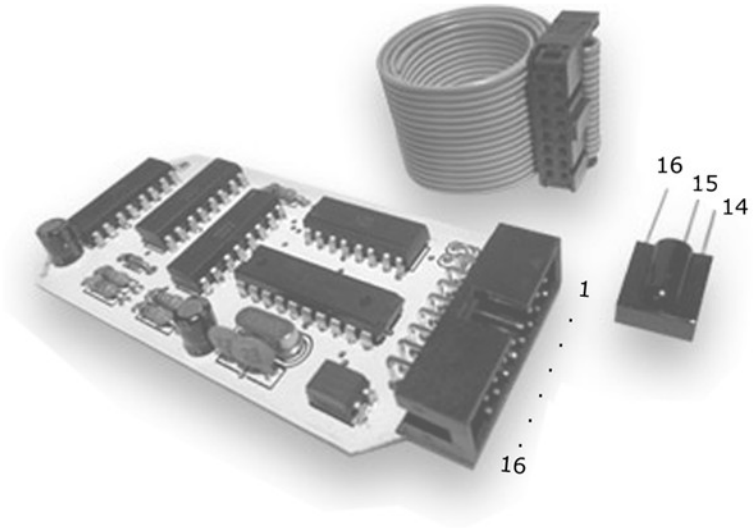
Display board

1 2x 33/35 FM Panasonic *radial types mount on underside, insulate lead with shrink tube

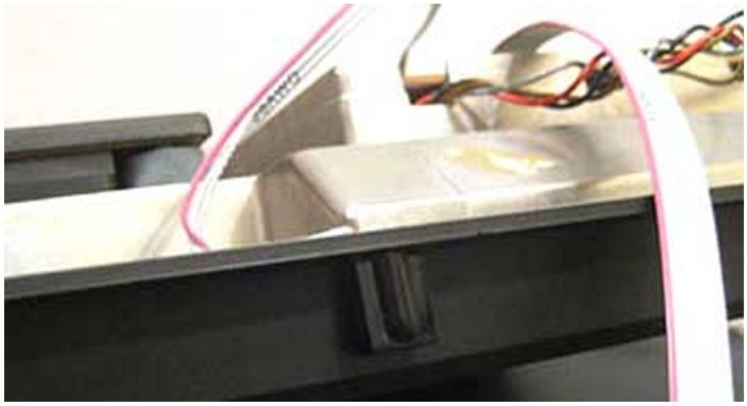
Remote control optional to order at dindiki.com/?remote-control-philips-cd100



Display board underside **1 - 13** soldering points for the cables of the remote module

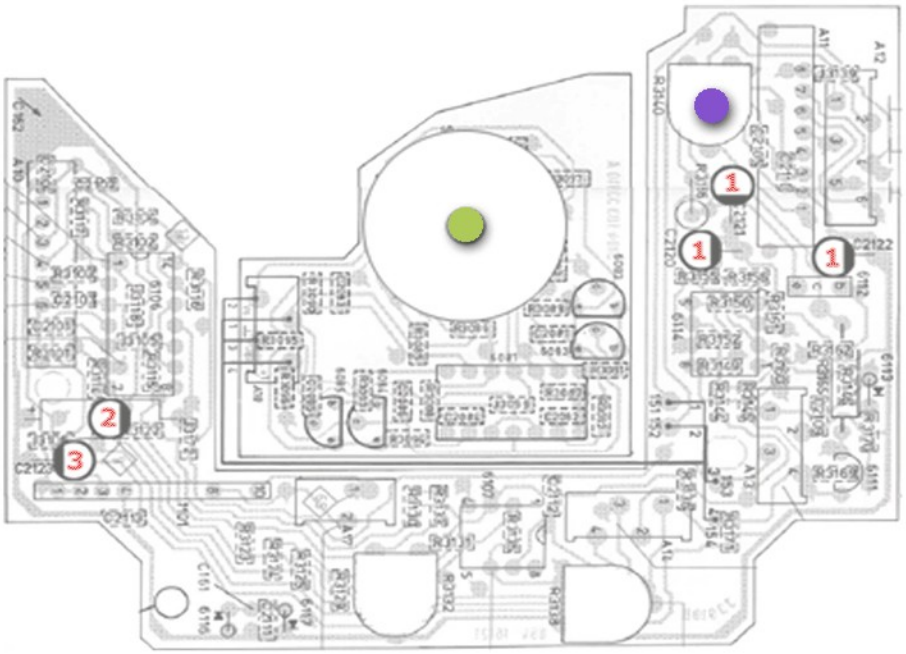


To mount the receiver, drill 3 pieces of 1mm holes for the legs14, 15 and 16 of the
receiver into the lower housing shell and plug in the receiver from the outside before soldering the cables.
Attention, the silver coating on the inside of the housing cover is conductive.
Around the legs this must be removed and care must be taken to ensure sufficient insulation.
The remote board is later inserted between the main board and the analog board.
The structural intervention remains minimal.



6. Laserprint

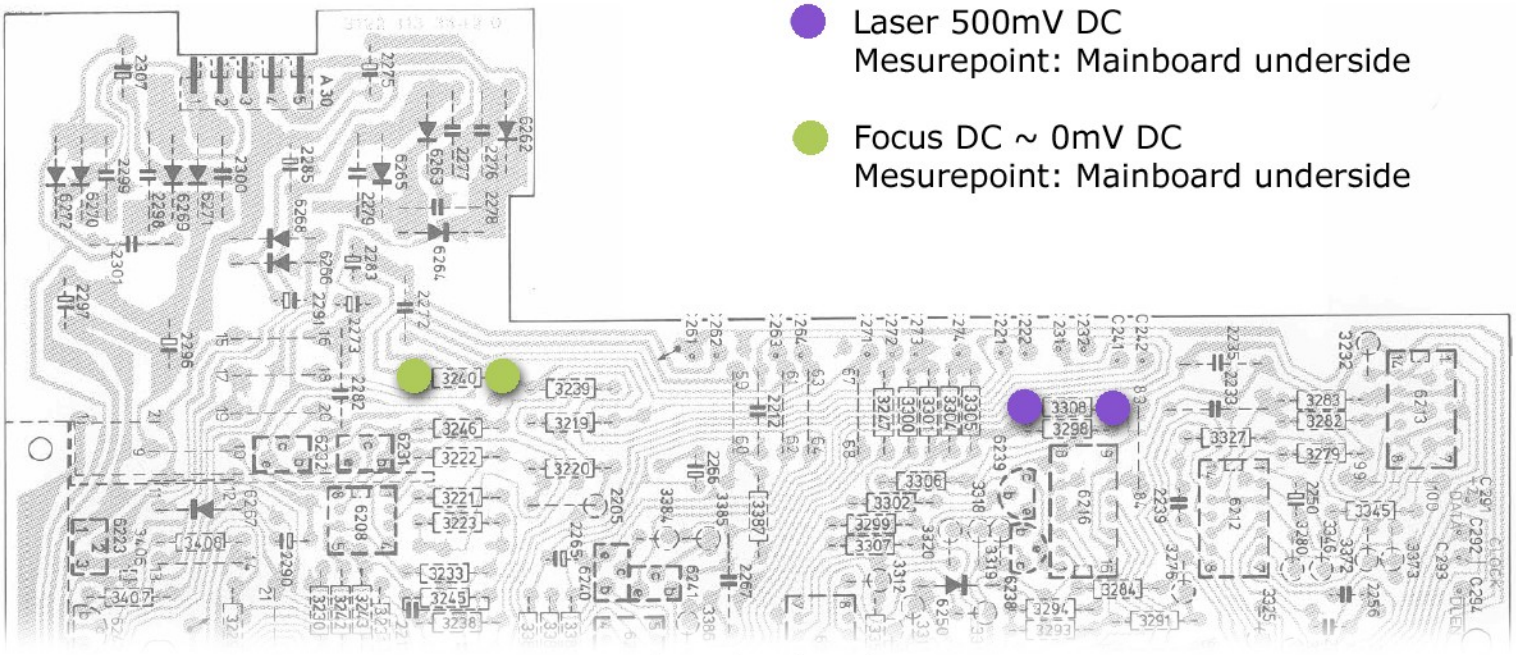
1 3x 33/35 FM Panasonic Laser
2 33/35 FM Panasonic -12V
3 33/35 FM Panasonic+11V



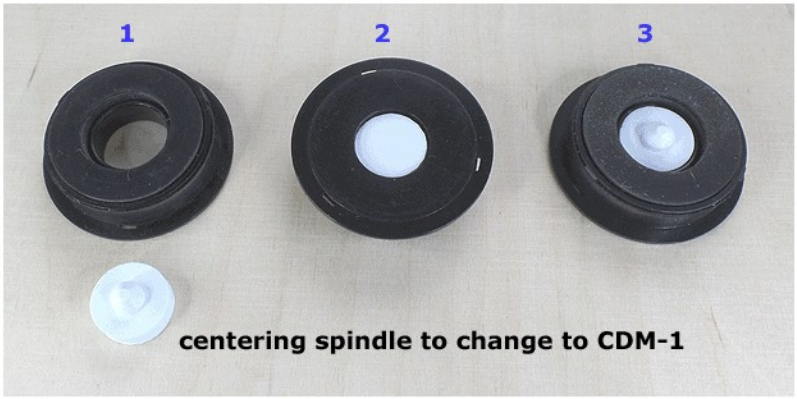
Settings

Laser 500mV DC
Mesurepoint: Mainboard underside

Focus DC ~ 0mV DC
Mesurepoint: Mainboard underside



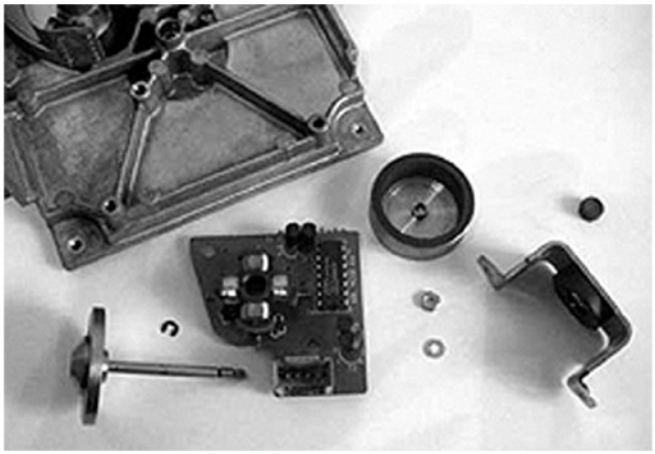
Mainboard underside



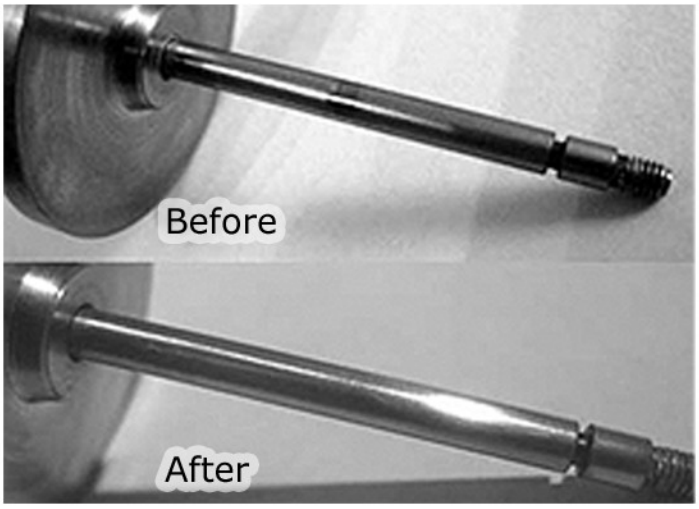
In case of a defective laser at **CD100**,
an easier to obtain successor model CDM-1
Laser can be installed like on CD101.
To change from CDM-0 to CDM-1,
a centering spindle must be inserted into
the upper magnetic slider to hold the CD.
Place the slider flat on the table **2** and fix
the centering spindle with a drop of glue
from the back side.

Hallmotor

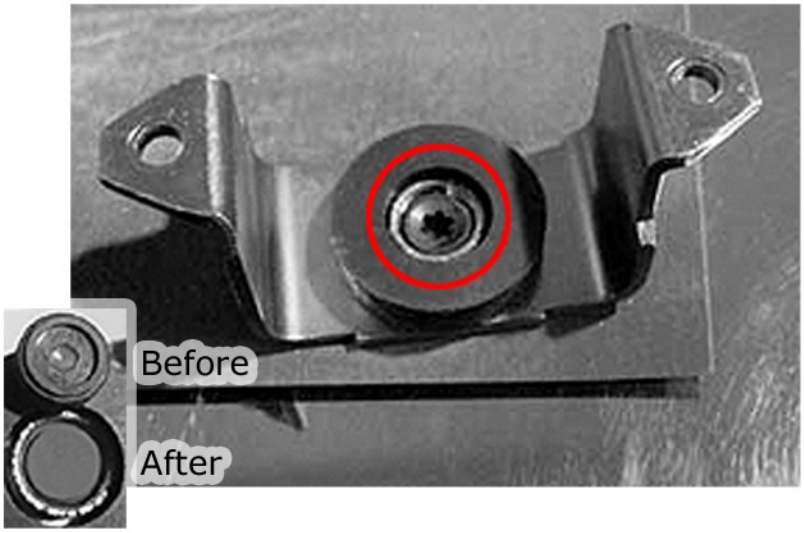
Disassemble and clean
Fitting with 1 drop of silicone oil



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



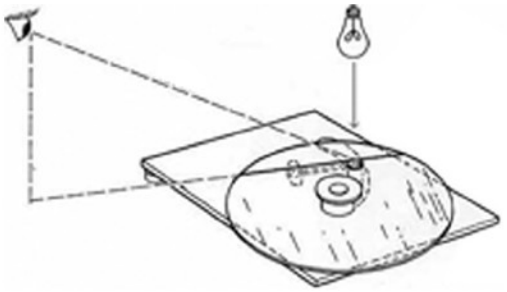
2. Axle bearing
Inverted screwed to plan with sandpaper



Laserpin

Check and adjust the scanning angle

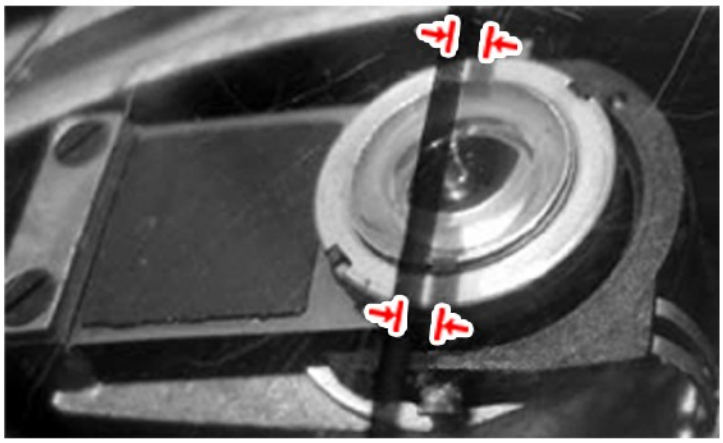
Check for straight light



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