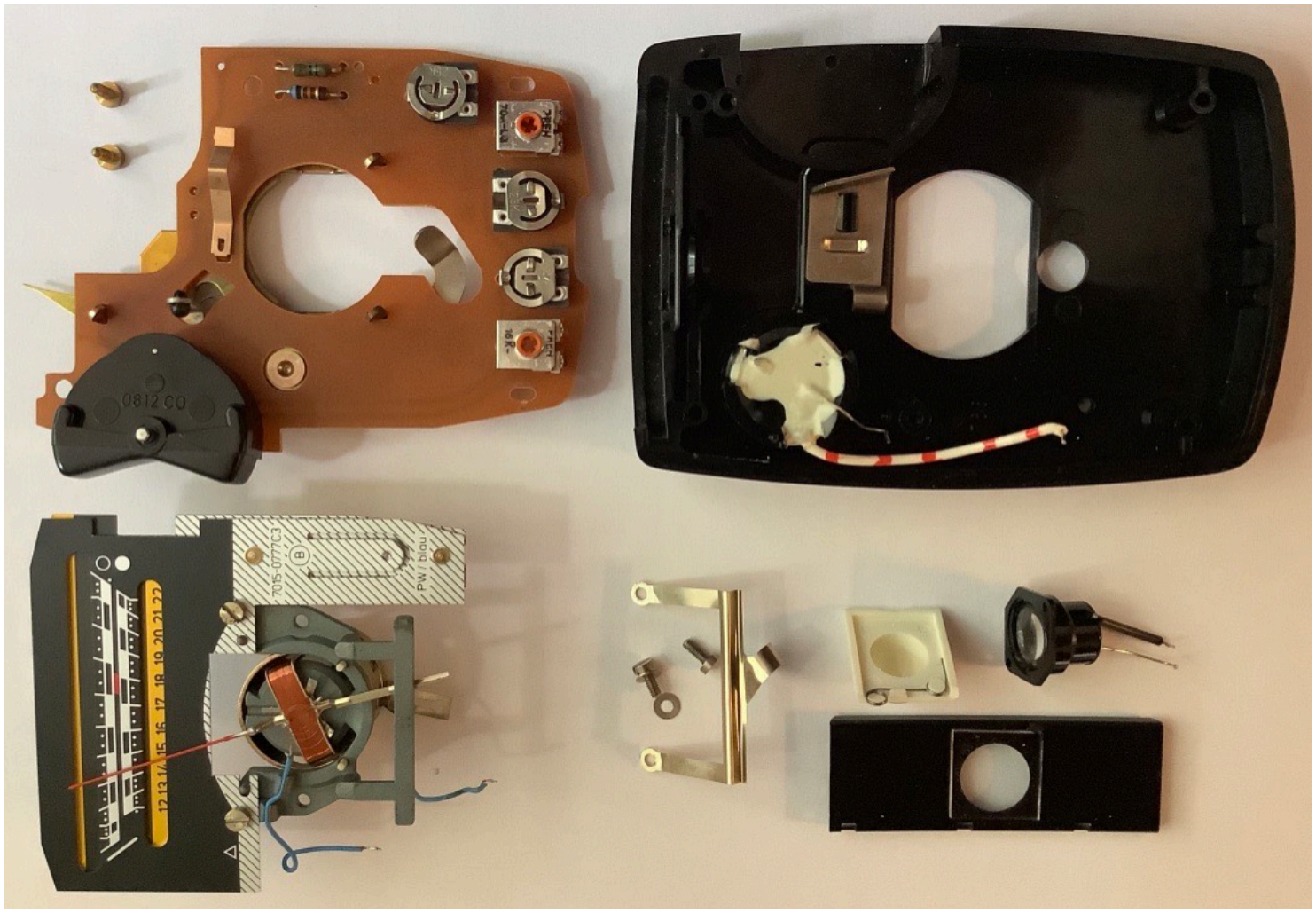
Gossen Lunasix 3 (S) notes, repair, CLA

Thanks to Marek Lewandowski for is artikel to recalibrate the Lunasix (link to URL)

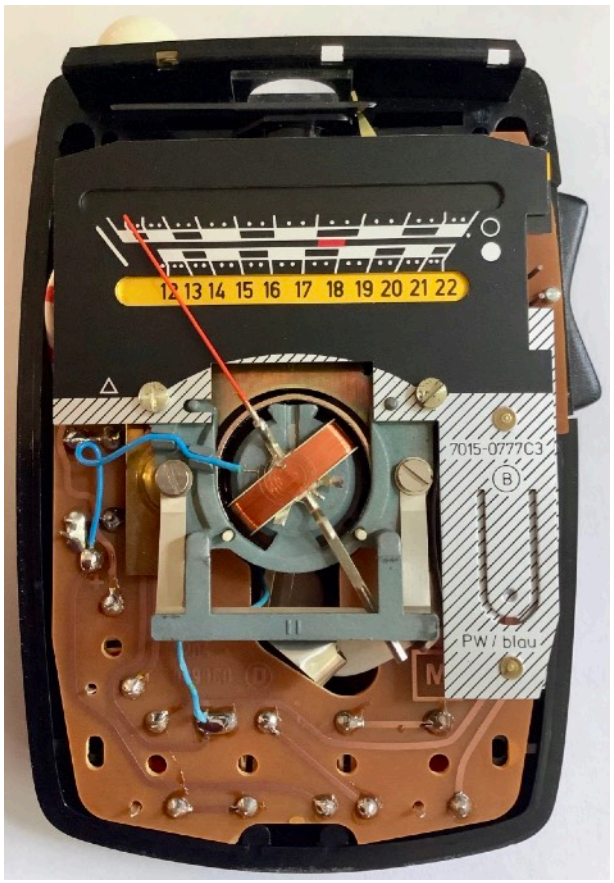


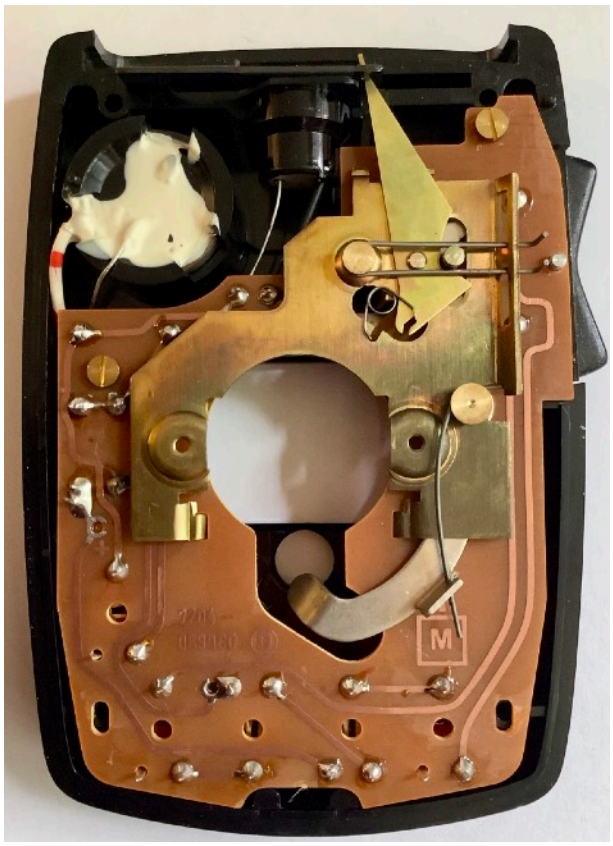
I've trouble with self rotating ISO scale if I rotate the number scale.

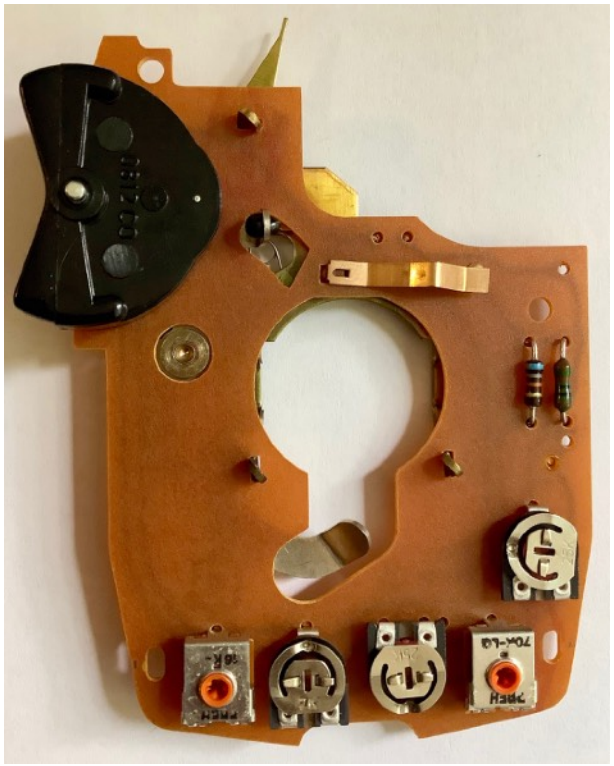
So did cleaning, removed all the old grease

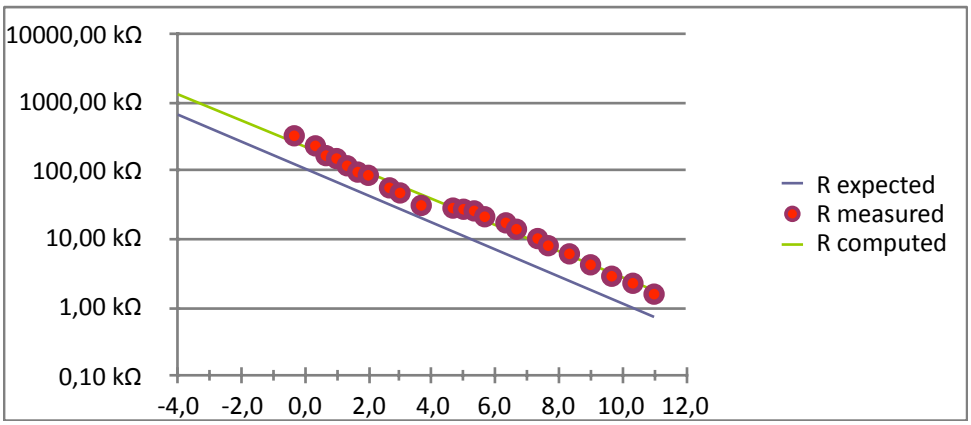
I put new grease in the 2 lower discs. I use Molykote 44 grease.

Now everything runs very smoothly again. Butter-soft as the German say

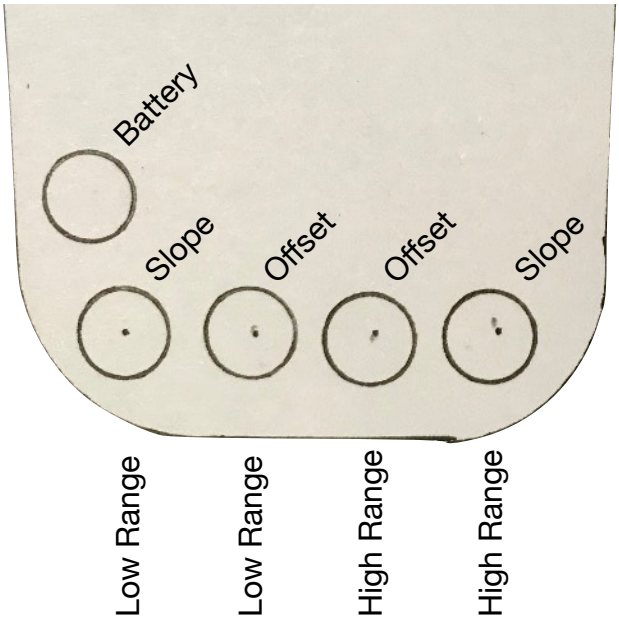

12 13 14 15 16 17 18 19 20 21 22
7015-0777C3
PW / blau

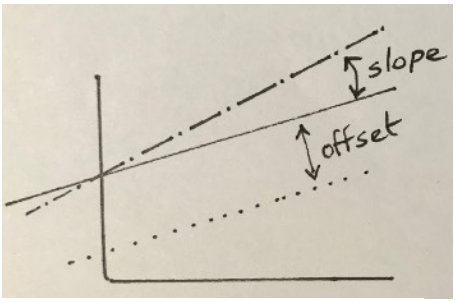


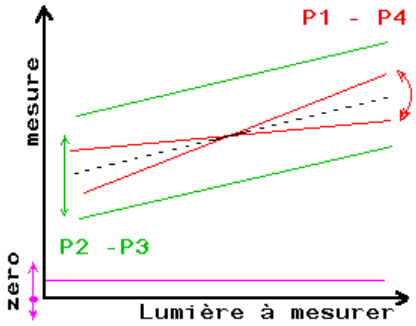




↓ Schematic PCB PCB side view

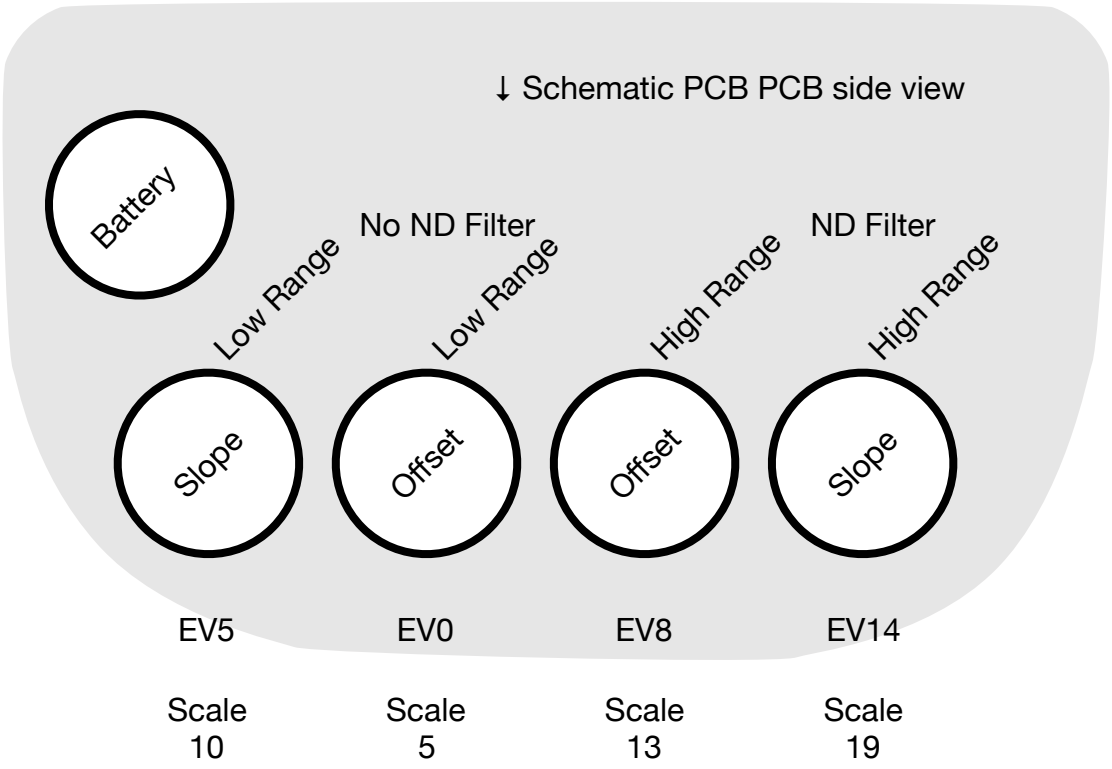






Geprobeerd met curve opmeet techniek de meter in te regelen. Niet gelukt. o.a. denk ik omdat metingen met gloeilamp licht zijn gedaan denk ik.

Light value	Value Gossen scale	Resistor Value*	Adjust potmeter
EV5	10	25,3 k Ohm	Low range pot Slope
EV0	5	229 k Ohm	Low range pot Offset
Light value	**Value Gossen scale**	**Resistor Value***	**Adjust potmeter**
EV14	19	6,73 k Ohm	High range pot Slope
EV8	13	95 k Ohm	High range pot Offset
*= **custom value** *only* for **my** 3S			



Recalibrate the meter with normal daylight sources

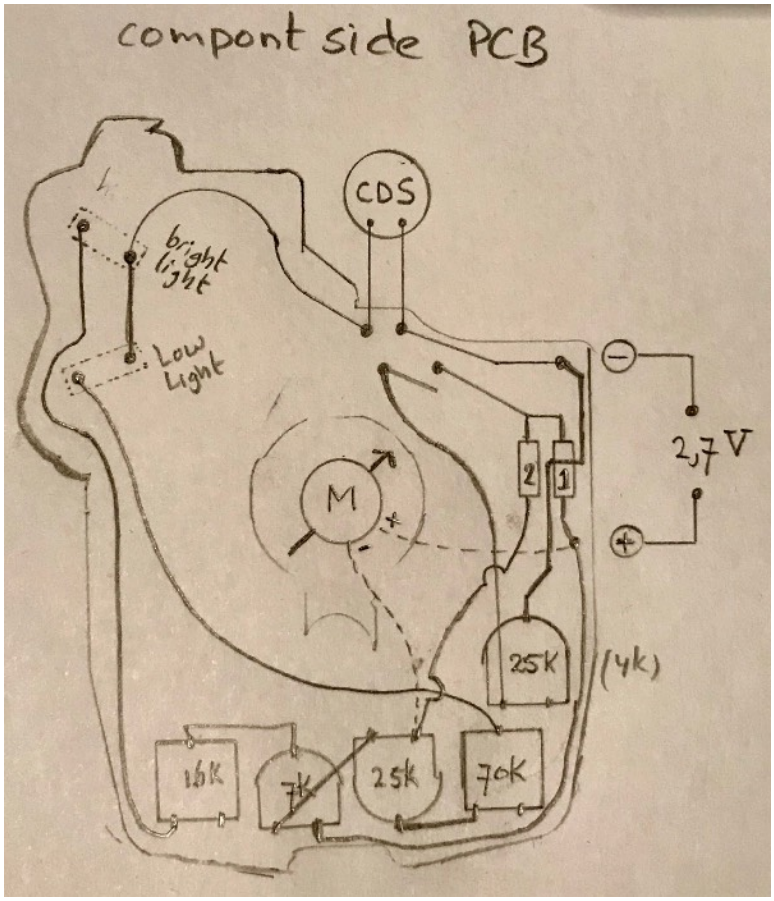
As reference meter I used an Gossen '*Sixtomat Digital*'
I use direct light, so the white dome in place
I start with my reference meter '*Sixtomat Digital*' and find a place with EV8
Set the *Lunasix* at same place and adjust the potentiometer 'Offset High' to 13
With my reference meter '*Sixtomat Digital*' again, now find a place with EV14
Set the *Lunasix* at same place and adjust the potentiometer 'Slope High' to 19
Repeat this steps

Tip 1) Do not place diodes (conversion from mercury to silver battery) if you adjust the meter again.

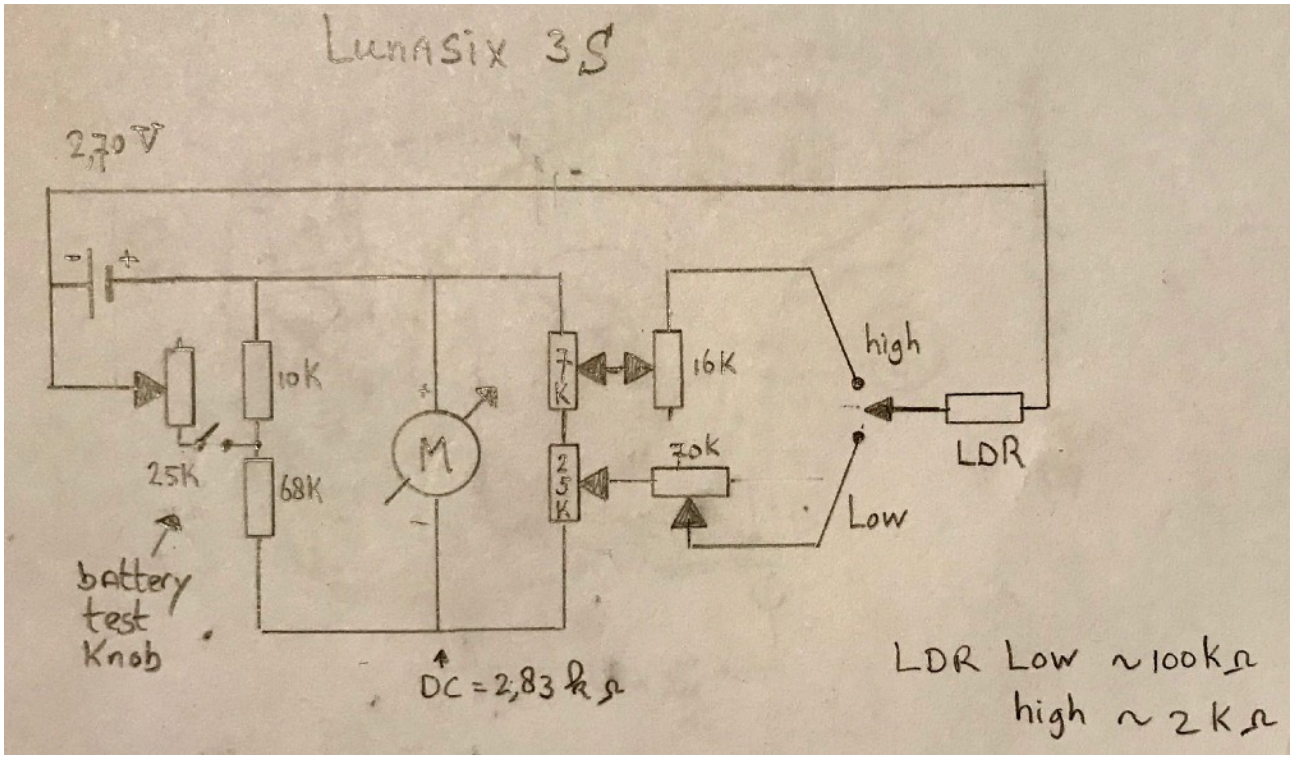
Tip 2) Adjusting the potentiometer with the housing open does not work. close each time again the case before reading your value

Tip 3) The quality of the light matters a lot. First I used a soft box where I put the light bulb with a variac at a very low voltage. That does not work the light becomes too red. Use light as naturally as possible (read daylight) to adjust the meter

↓ Circuit Lunasix 3S



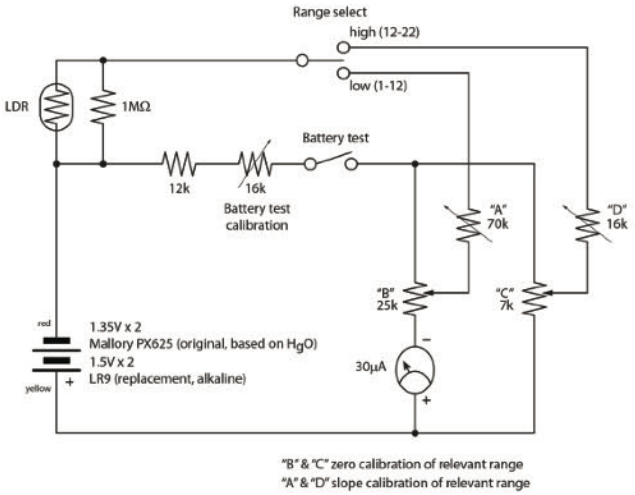
← Schematic PCB component side view



↑ Schematic

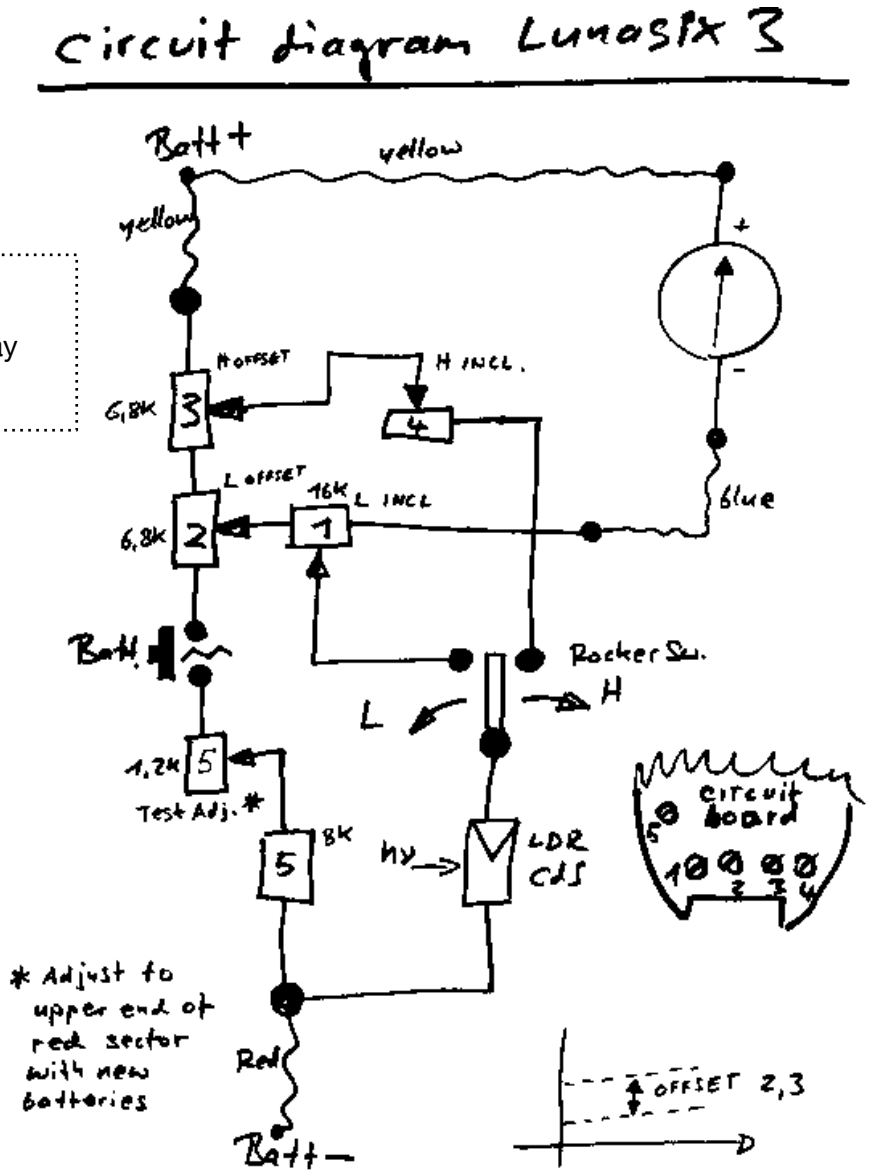
↓ Circuit Lunasix 3 according to Alessandro Lambardi

It is different from my 3S version,
Hmmm. . . I think,
this circuit diagram may have a mistake.



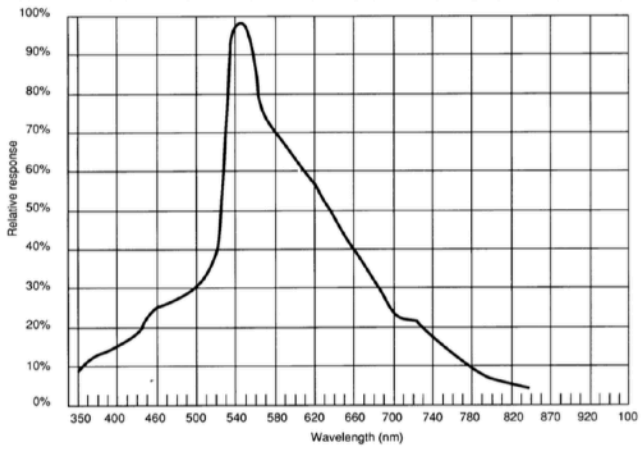
↓ Circuit Lunasix 3 according to Georg Holderied

It is different from my 3S version,
Hmmm. . . I think better,
but I think this circuit diagram may still have a mistake.



↓ Spectral respons of an (random type) CDS cel

Figure 5 Spectral response



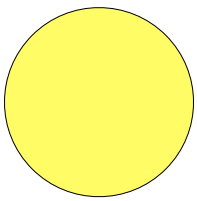
Battery options

- (Not recommend) Buy in Russia an mercury battery. http://www.px625.ru
- (Difficult) Buy an 625 Silver-Oxide battery and recalibrate your light meter
- (Easy) Buy an PR625 or LR44 Zinc Air battery + adapter (expect ¼ to ½ year life ?)
- (Average) Buy an LR44 Silver-Oxide battery + adapter and recalibrate your light meter
- (Expensive) Buy an Wein Cell EPX PX625
- Do NOT use a alkaline battery (example V625U)

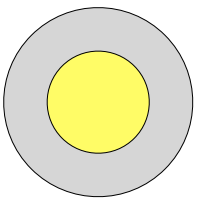
↑ Adapter

Battery adapter 'trouble'

I got trouble with LR44 battery and the adapter. The battery clamp from my Lunasix was to big and short circuit between the two poles of the battery.
So I made an adapter from very thin (0.3mm) double sided PCB. One side I etched the copper circle to 8.0 mm. Other possibility was I made a ring from teflon (PTFE).



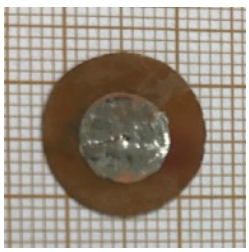
clamp side↑
diameter
14,8 mm



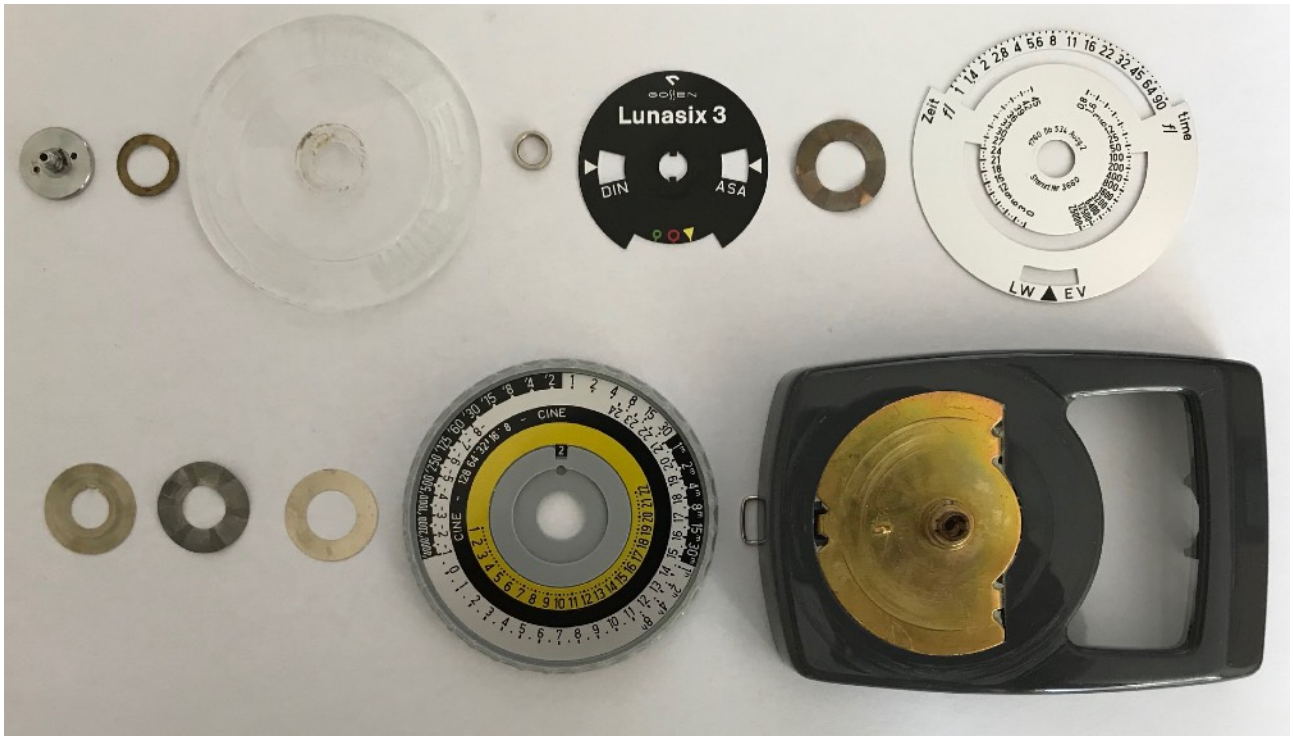
Battery side↑
diameter
8 mm

cupper

Isolator

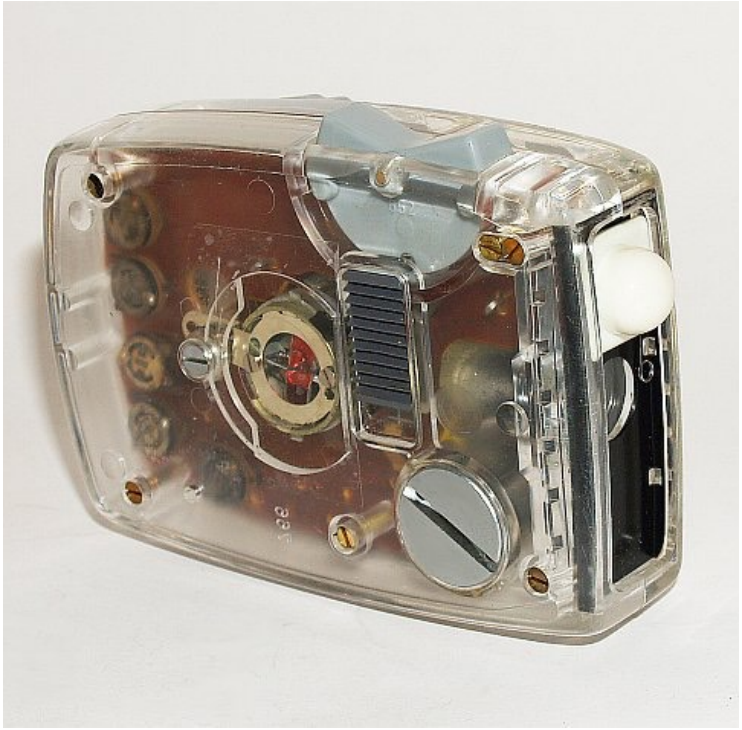


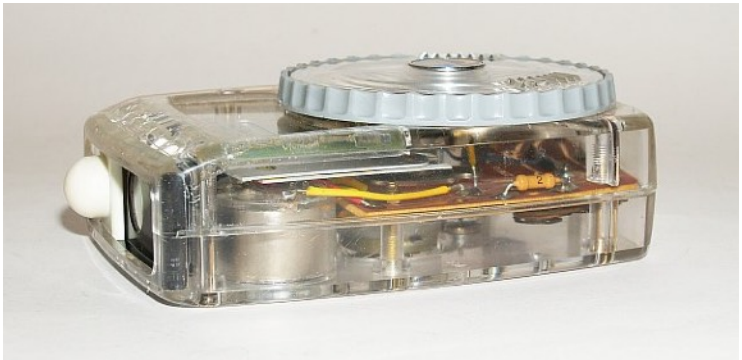
↓ Photo's from Lunasix 3 scale.



I've a dirty/smutty scale. So I did a cleaning, plus I've removed all the old grease
I put new grease in the lower disc. If I use Molykote 44 grease I find that the ring is rotating too stiff. So I changed the grease to Nyogel 744
Now everything runs very smoothly again.

↓ Photo's from https://photobutmore.de/vintagephoto/belichtungsmesserspez/index.php





↓ Drawings from Rick_Oleson.