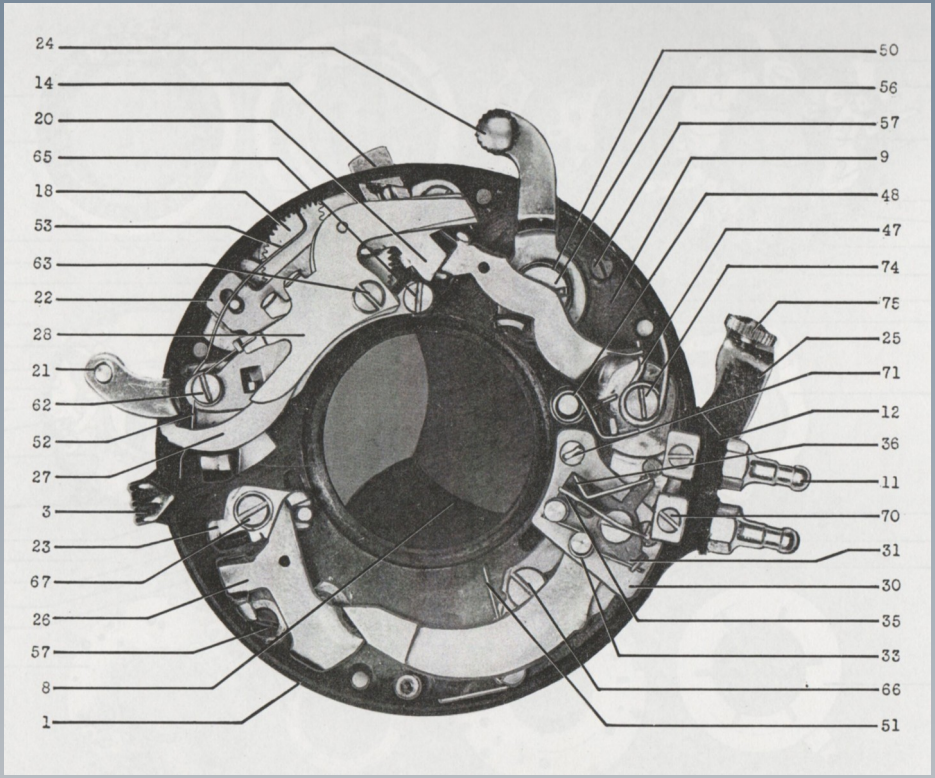


Pentax S1a
CLA (sticky shutter and mirror hanging up)

Tutorial by Eugene Pate

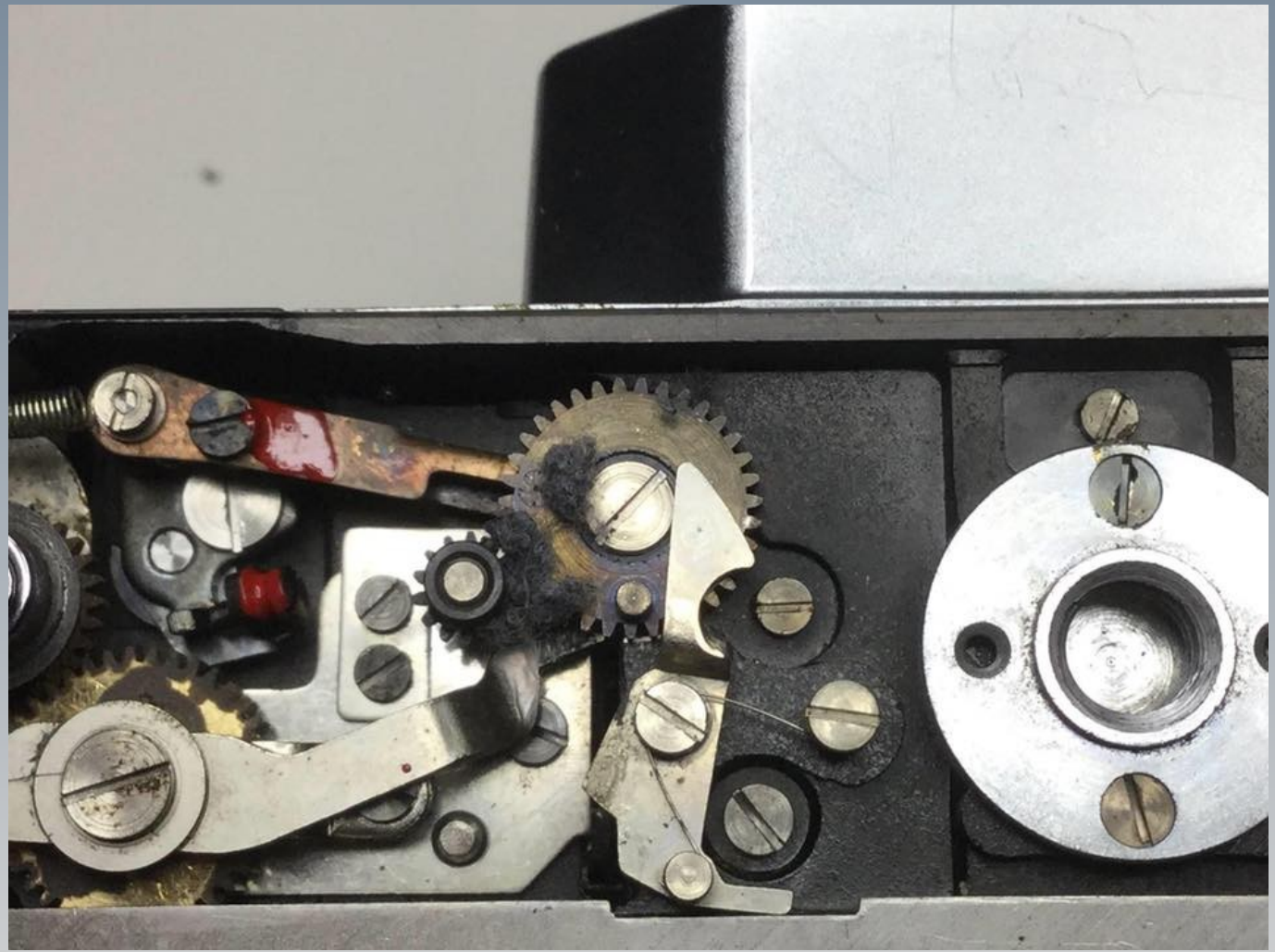
https://learncamerarepair.com/

https://www.facebook.com/groups/360490091319202/

POST #1 sticky shutter and mirror hanging up
https://www.facebook.com/groups/360490091319202/permalink/542129403155269/

POST #2
https://www.facebook.com/groups/360490091319202/permalink/542130329821843/

The first thing any good camera technician does with any Pentax camera is pull the button cover, from the bottom you can see the lower winding gear set to the far left, the lower shutter mechanism to the right of that and then the mirror charge lever and related gears ... all before you see the tripod socket...I hit gold with this simple and basic check...if you look closely you can see the problem, a small chunk of debris that looks like lint is caught between the shutter curtain lower gear and the mirror release gear (the gear with the post) , also if you look closer at the workbench that torn chunk of film was also caught in the bottom...cleaning out the blockage actually got the camera shutter and mirror working again...but being a good camera repairman, aim going to take the camera apart down to the shutter and mirror lubrication points and do a real CLA



POST #3

https://www.facebook.com/groups/360490091319202/permalink/542131639821712/

Using a needle nose plairs hold the rewind fork from the back, lift the rewind knob handle and simply unscrew the rewind knob assembly - counterclockwise removes it and clockwise tightens it, after you lift off the rewind knob, you can see the reminder dial underneath, you should use a spanner with the appropriate pointed tips to unscrew the scanner nut (disc) - make a habit of organizing the parts in order, it'll make your job a lot easier...


ASA 10 16 25 32 50 100 25 50 100 200 400 800


R


No.687672
S1a

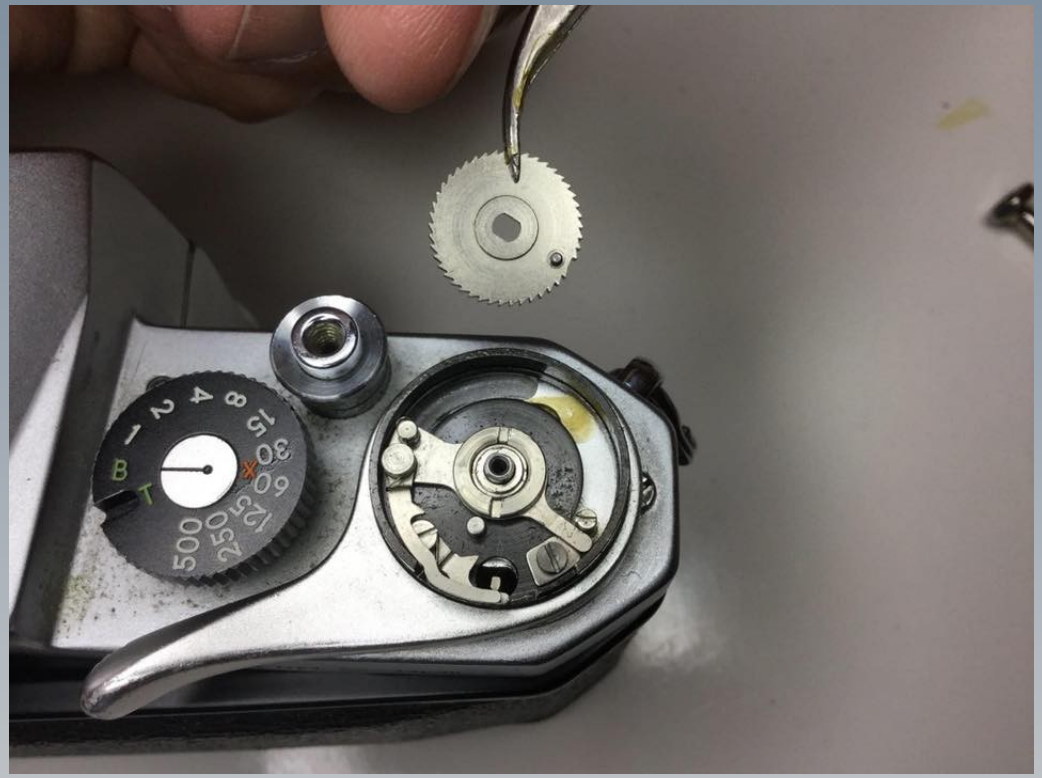
POST #4
https://www.facebook.com/groups/360490091319202/permalink/542132496488293/

Moving over to the film counter, find the three small slotted set screws on the circumference of the counter cover, loosen the screws being carefull not to loose them, they are slotted for a flat screwdriver, right hand threads, 1.4mm screws with a point to hold the cover in place, with the screws loose the dial may rotate in place a little looser and it should lift off. next - the flat head slotted screw holding the counter dial down is LEFT-HANDED!!! turn it clockwise to remove gently DON'T BREAK IT! you'll be sorry if you break it...lift off the parts including the funny looking gear below it. Change your spanner tips to the slotted tips and remove the spanner nut holding the spring loaded lever below that ... it's right handed...yeah spring loaded, be careful not to loose the spring - they fly off just when you don't expect it, lift off the housing below the lever....did I mention stay organized and take digital photos to refer back to...unless you're crazy or have a manual handy...remember Pentax reserved the right to change things and they did now and then so TAKE NOTES and PHOTOS...


B
T
500
250
125
60
30
15
8
4
2
1


B
T
1
2
4
8
15
30
60
125
250
500
0
5
10
15
20
25
30
35


0
5
10
15
20
25
30
35


B
T
X
500
250
125
60
30
15
8
4
2
1


B
T
500
250
125
60
30
15
8
4
2
1


B
T
X
500
250
125
60
30
15
8
4
2
1


B
T
X
500
250
125
60
30
15
8
4
2
1


500
250
125
60

POST #5
https://www.facebook.com/groups/360490091319202/permalink/542133249821551/

Two right handed slotted screws hold down the winding lever, remove those and take the time to photograph your parts for when you accidently move them and can't remember the order they go in...


ULTRASONIC
28 35 50
28-80mm

POST #6
https://www.facebook.com/groups/360490091319202/permalink/542133966488146/

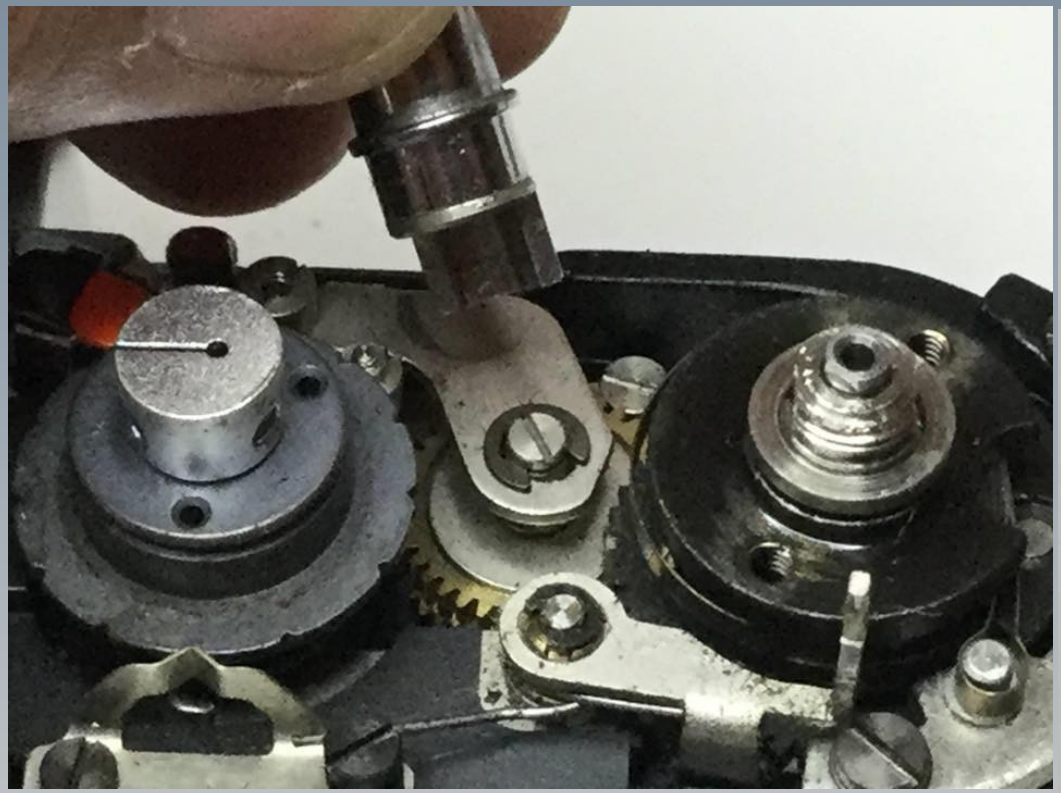
There are three small slotted right handed set screws holding the shutter speed dial, turn the dial to B (bulb) and all three screws are reachable...I recommend setting all Spotmatic cameras to Bulb to remove the shutter selector dial...the K1000 is a Spotmatic design. lift off the dial and for God's sake don't loose the screws (if youre like me and have a camera graveyard you can rob parts you loose...but that's sloppy). one screw holds down the top cover, remove it and gently wiggle the top cover up and off...GENTLY there are loose parts underneath! if you were careful you'll see the shutter release button sitting on top of the release lever - its loose, inside of it is a pin that the cable release pushes down to replease the shutter, set these aside and take another photo!


ASAHI OPT. Co., Japan


B
T
ASAHI OPT. Co., Japan

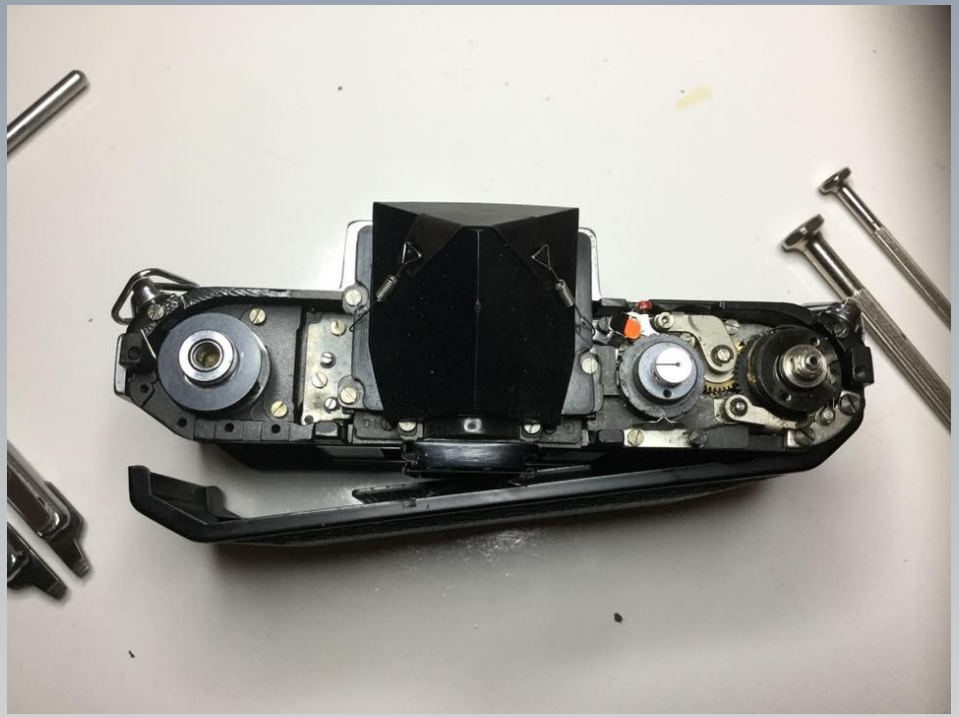

No.687672
S1a

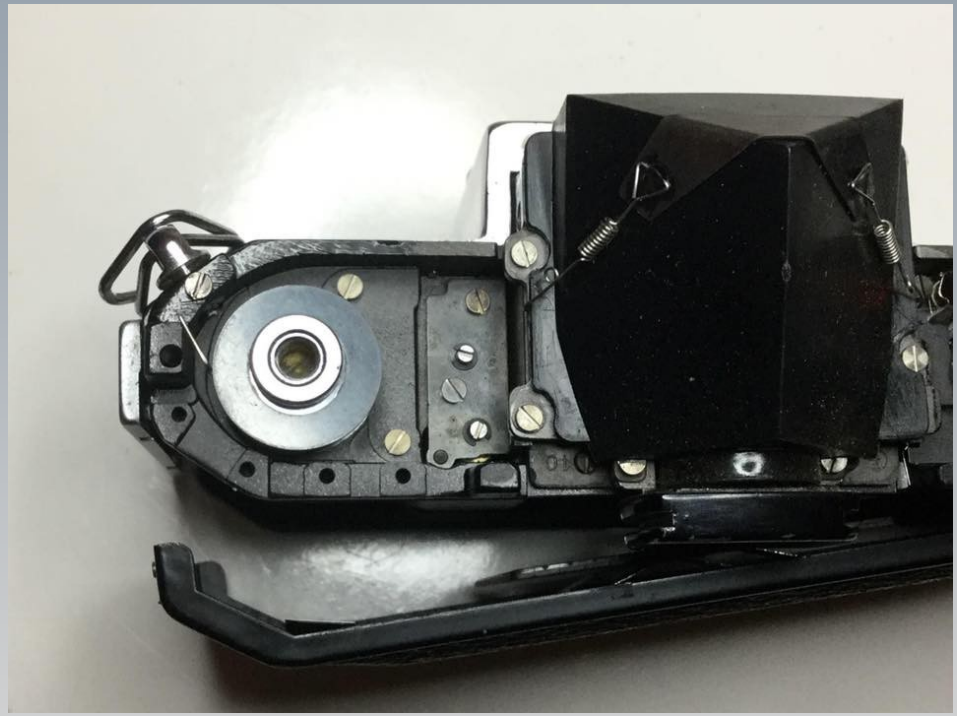

ASAHI OPT. Co., Japan

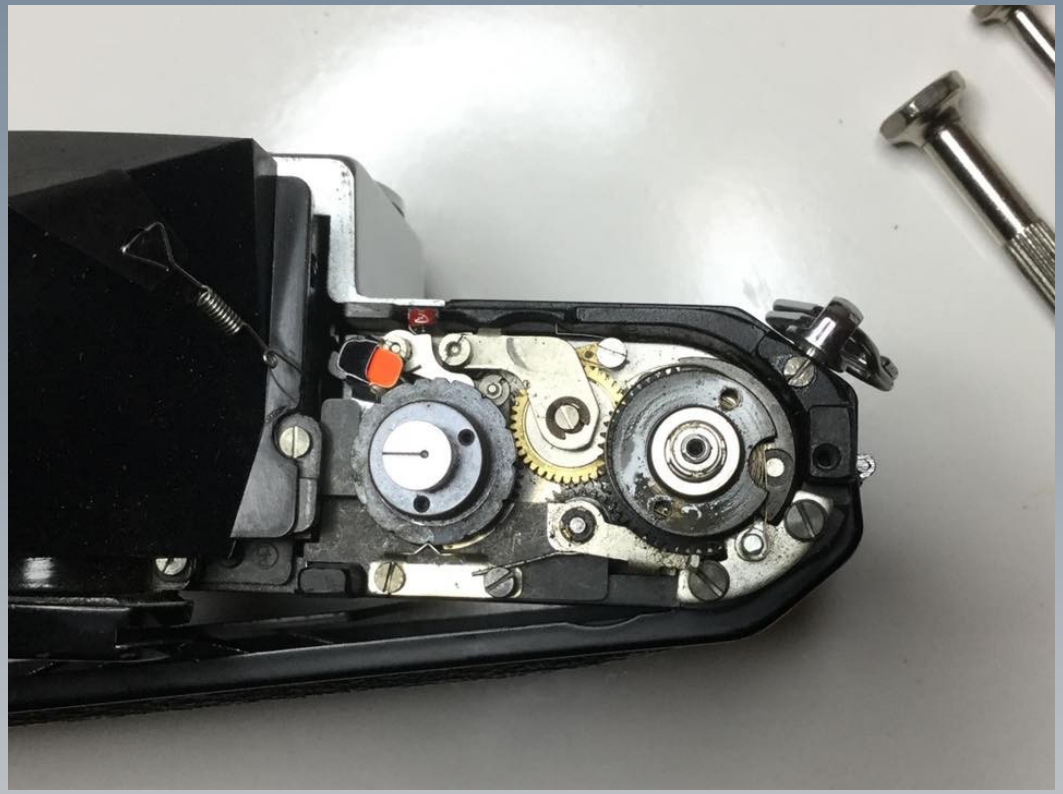


POST #7
https://www.facebook.com/groups/360490091319202/permalink/542134766488066/

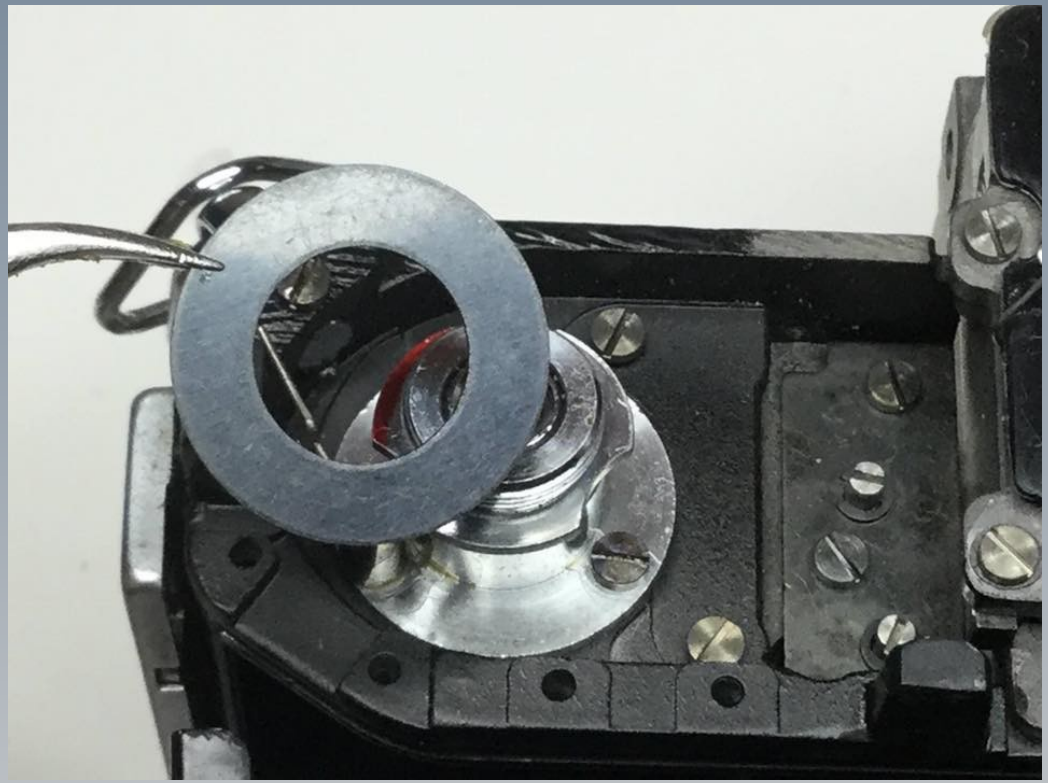
You turned the camera over didn't you?... I hope not because now's the time to carefully look over the inside the top cover and see the two loose parts I forgot about - a cover ring at the rewind side and a spacer ring over the wind shaft...in my old age I forgot these, remove them and set them aside...








FP
X

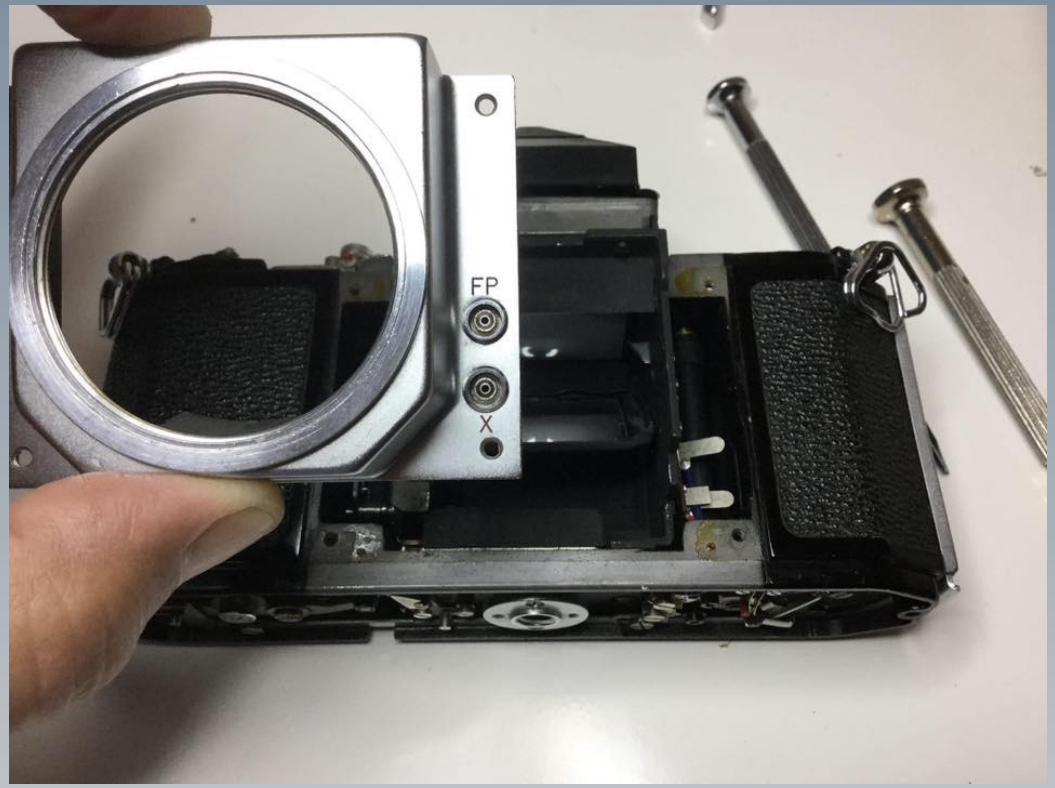


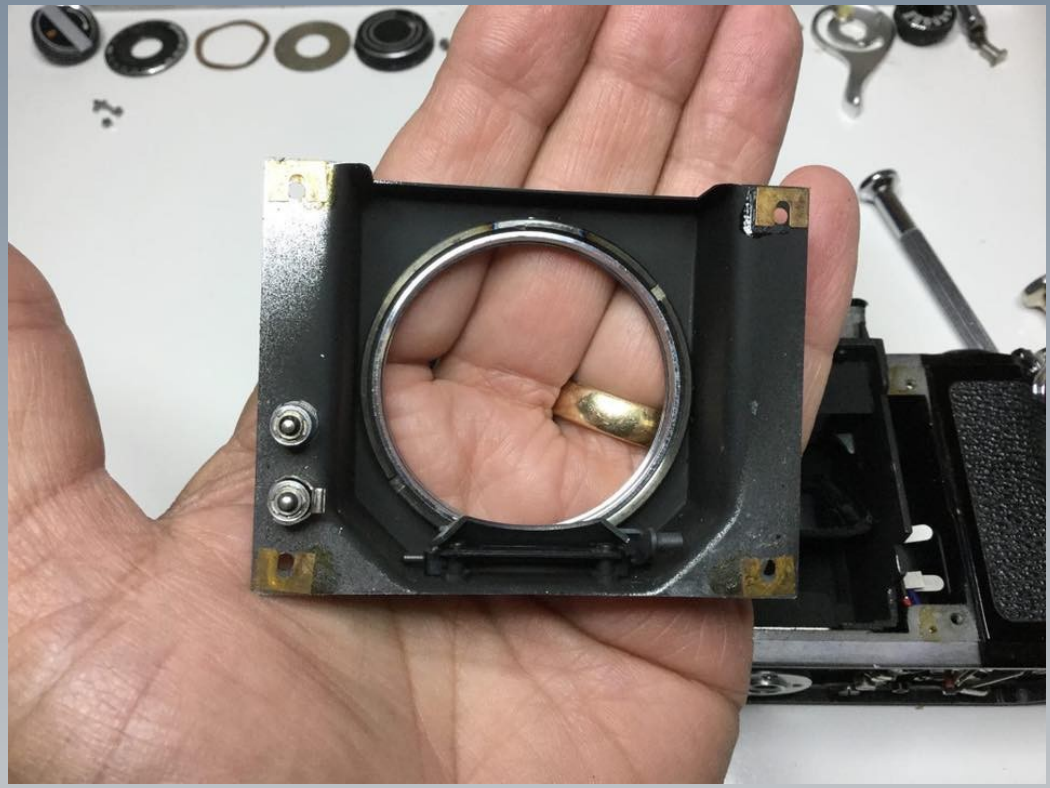
POST #8
https://www.facebook.com/groups/360490091319202/permalink/542135709821305/

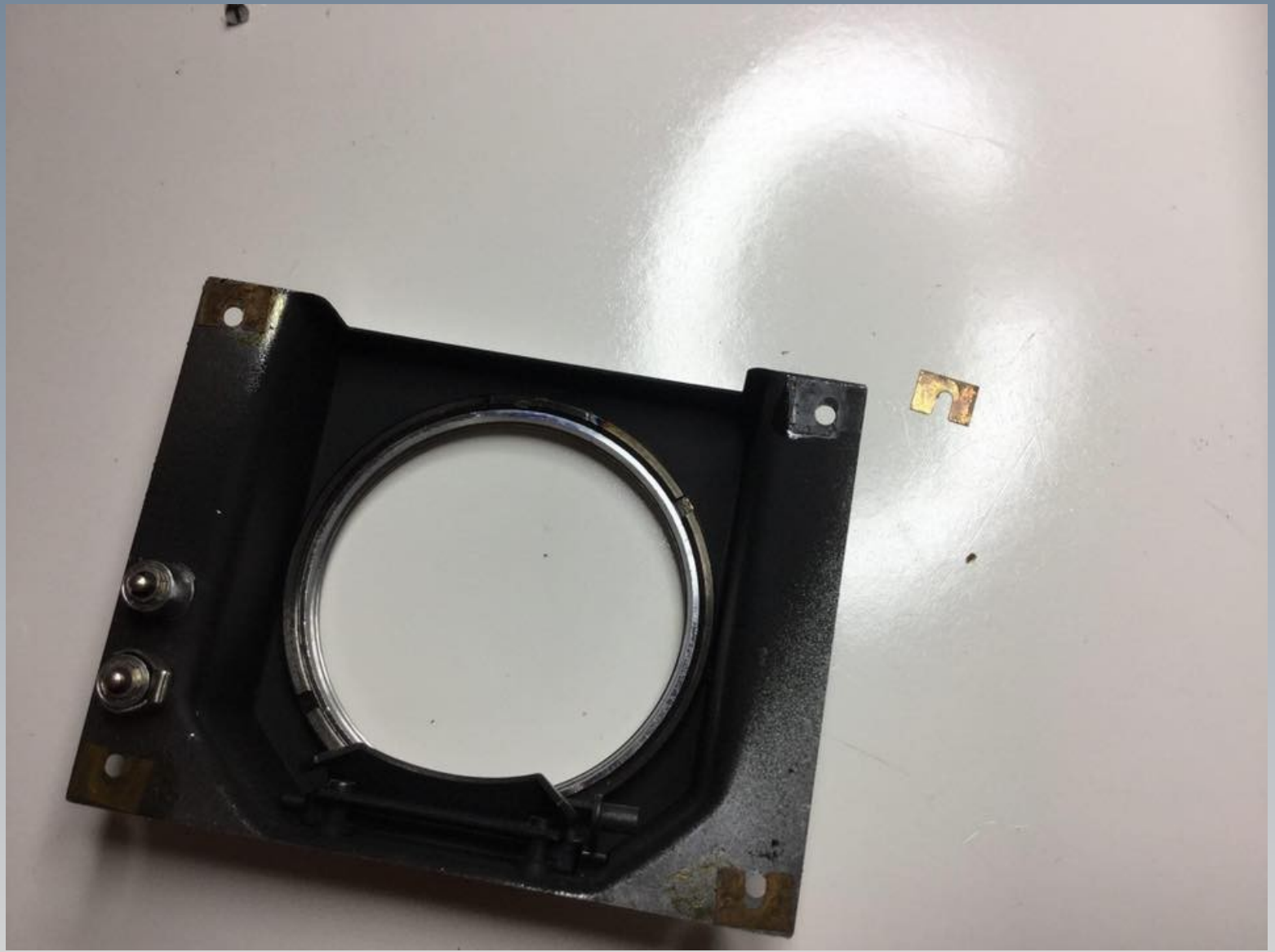
Removing the Front Plate - four slotted chrome plated screws hold the plate in place, lay the camera body flat and remove the four screws, do not move the camera because there are front plate spacers behind the screws that the factory places there for critical adjustments at the lens mount to the film plane (polished guide rails in the film compartment), sometimes these spacers are loose and sometimes held in place with either a dab of grease or soft cement. Some spacers are round washers of varying thicknesses or as in this case they are "U" shaped, sometimes there are multiple spacers at one location, if you look closely you can see they're placed between the body casting and the inside of the front plate...Don't lose these or mix them up, if they're loose, use a dab of clear fingernail polish to hold them in place, alternately you can use a spot of Pliobond Cement...


FP
X


FP


FP
X

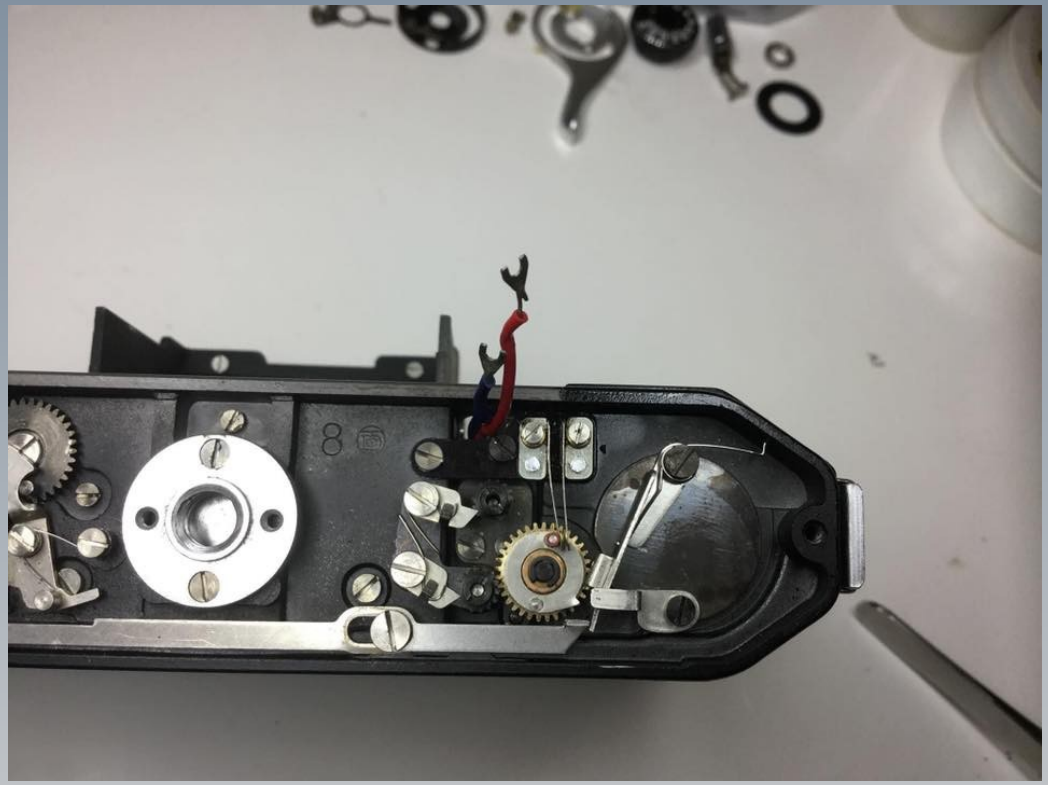


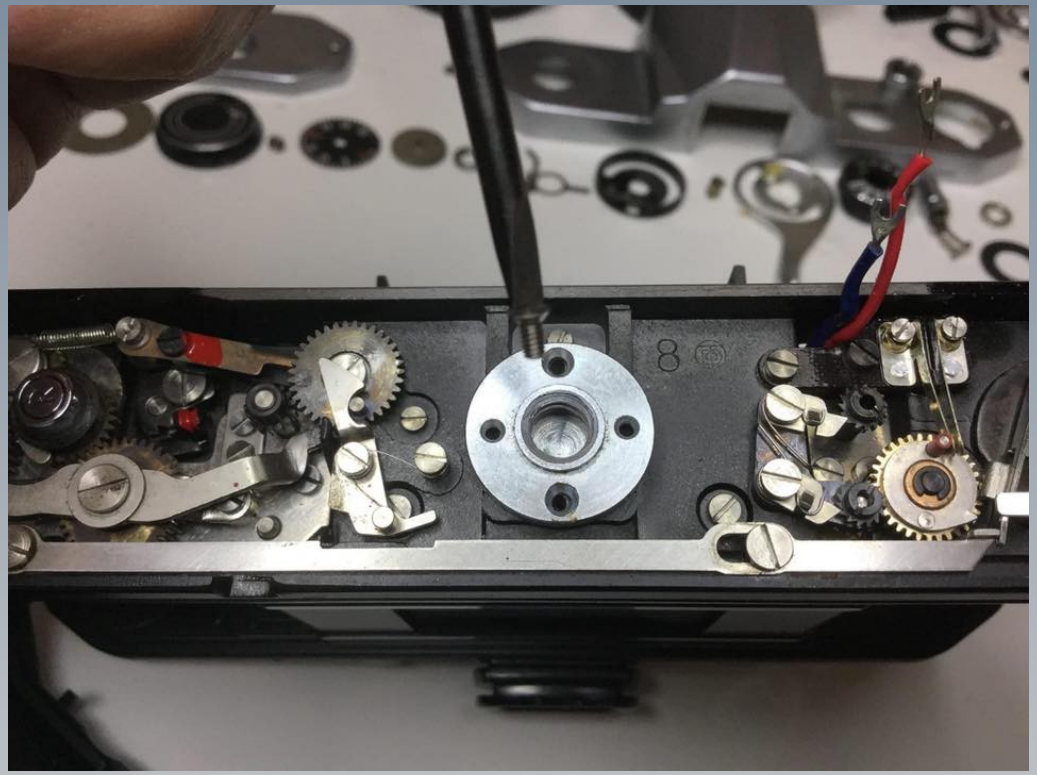


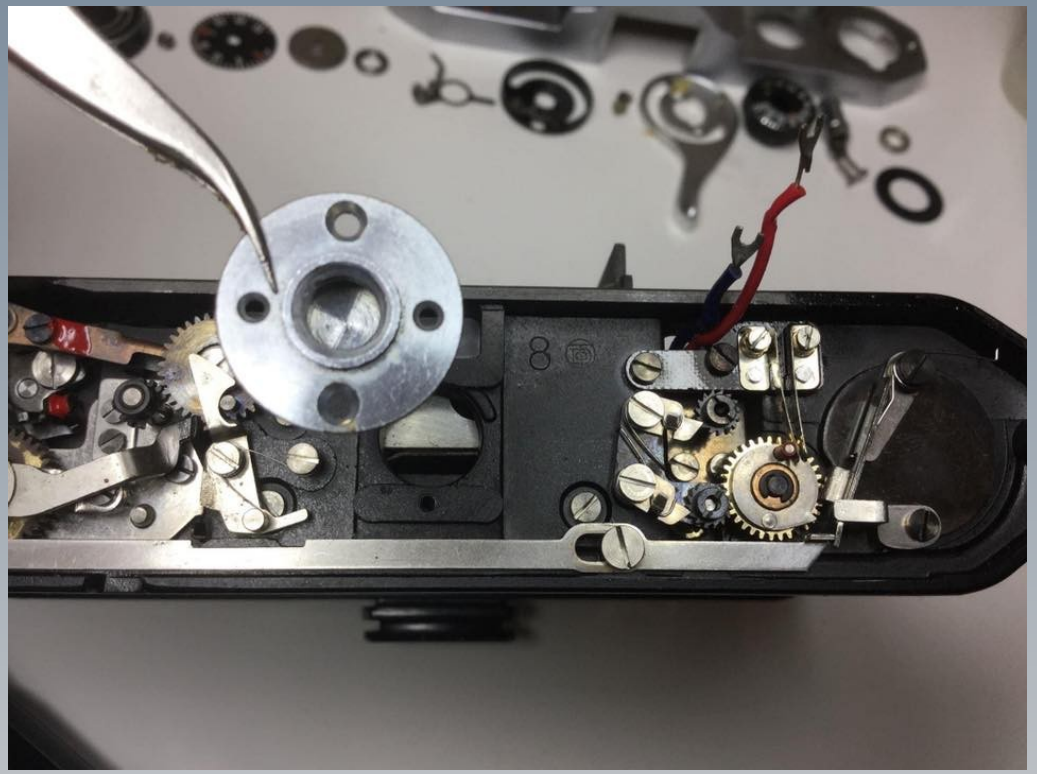
POST #9

https://www.facebook.com/groups/360490091319202/permalink/542136596487883/

Looking at the bottom on the rewind end you'll see the red and blue FP and X Sync wires are held by screws, loosen the screws, lift off the connectors and you don't even need a soldering iron, I always straighten the wires because when you remove the mirror unit these wires will have to pass through a hold in the body casting, I like to remove the tripod socket, under the tripod socket you can see the bottom of the slow speed governor (escapement)...

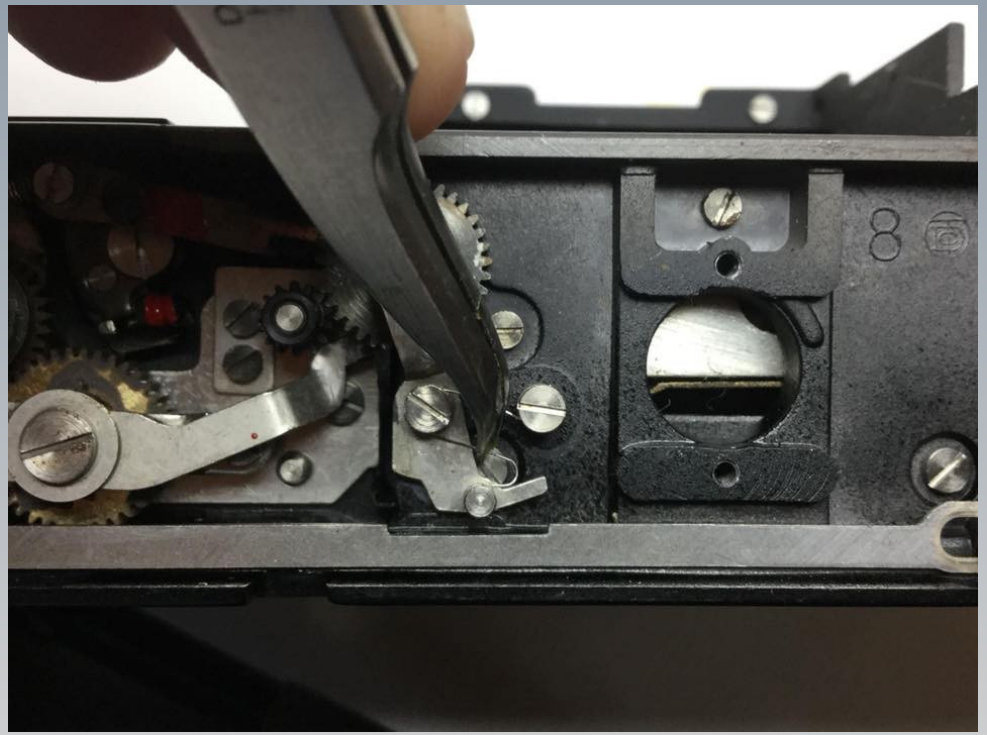






POST #10
https://www.facebook.com/groups/360490091319202/permalink/542137226487820/

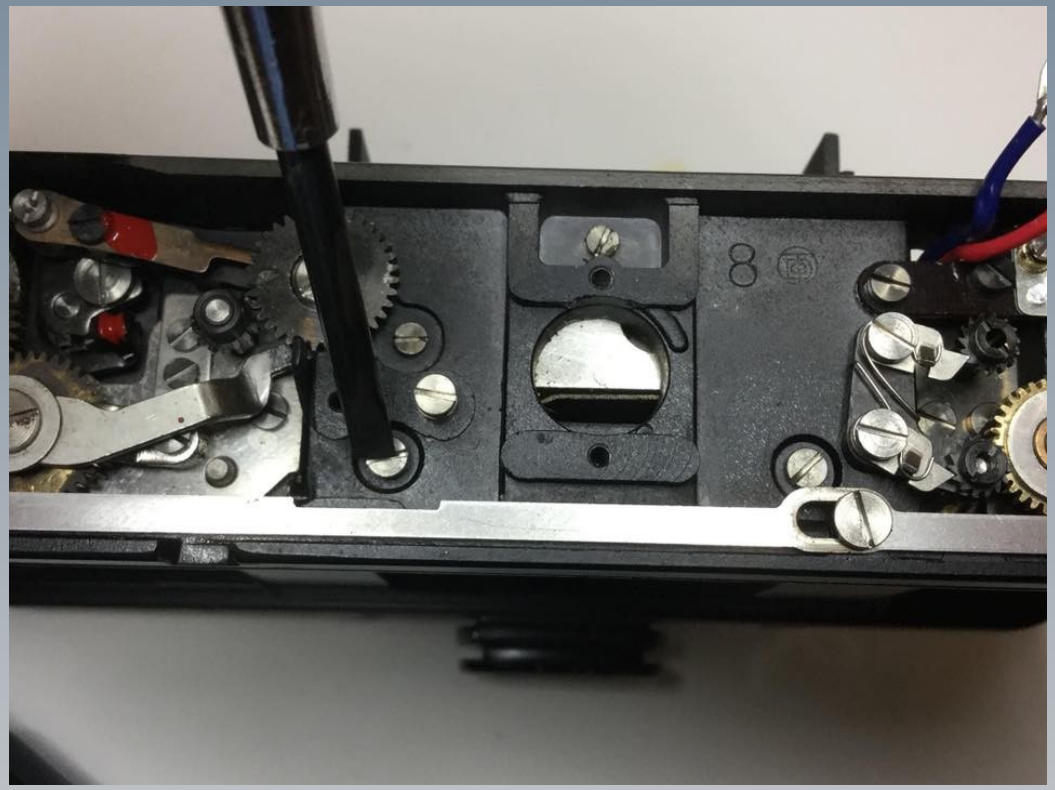
Gently un-hook the mirror release lever spring as shown to take some of the tension off, unscrew the retaining post screw, lift off the screw with the spring, lever and note the loose brass washer underneath used as a spacer...don't lose any parts! Keep taking photos of your parts!

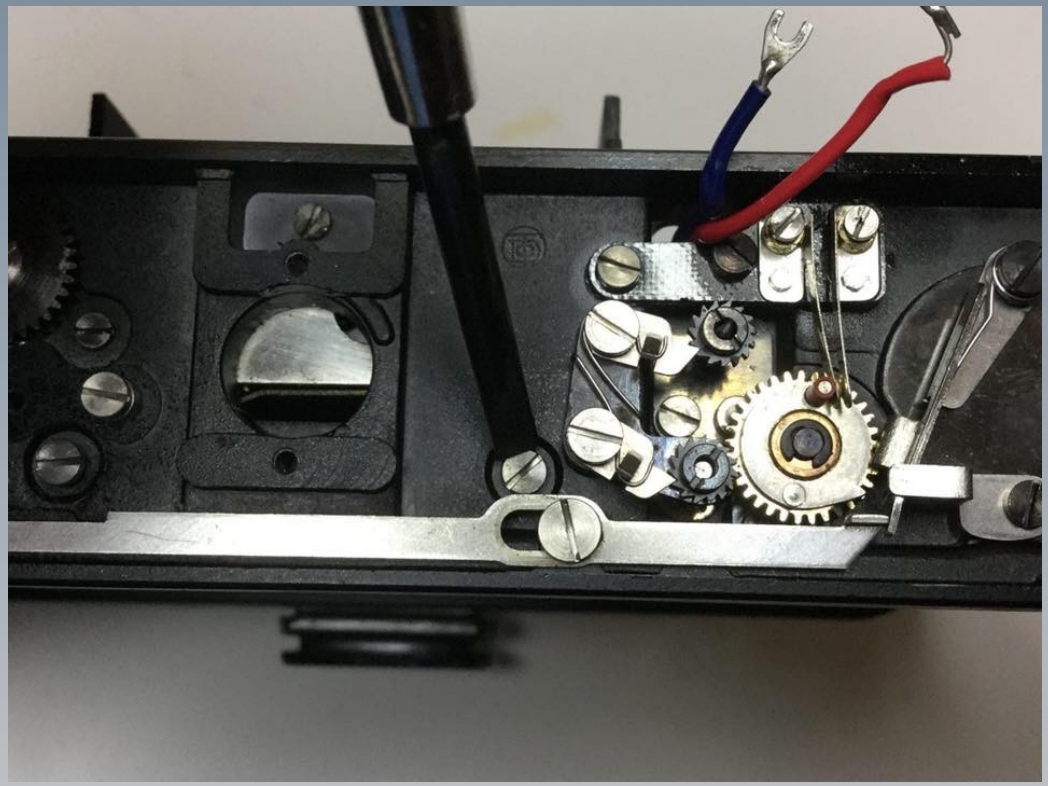


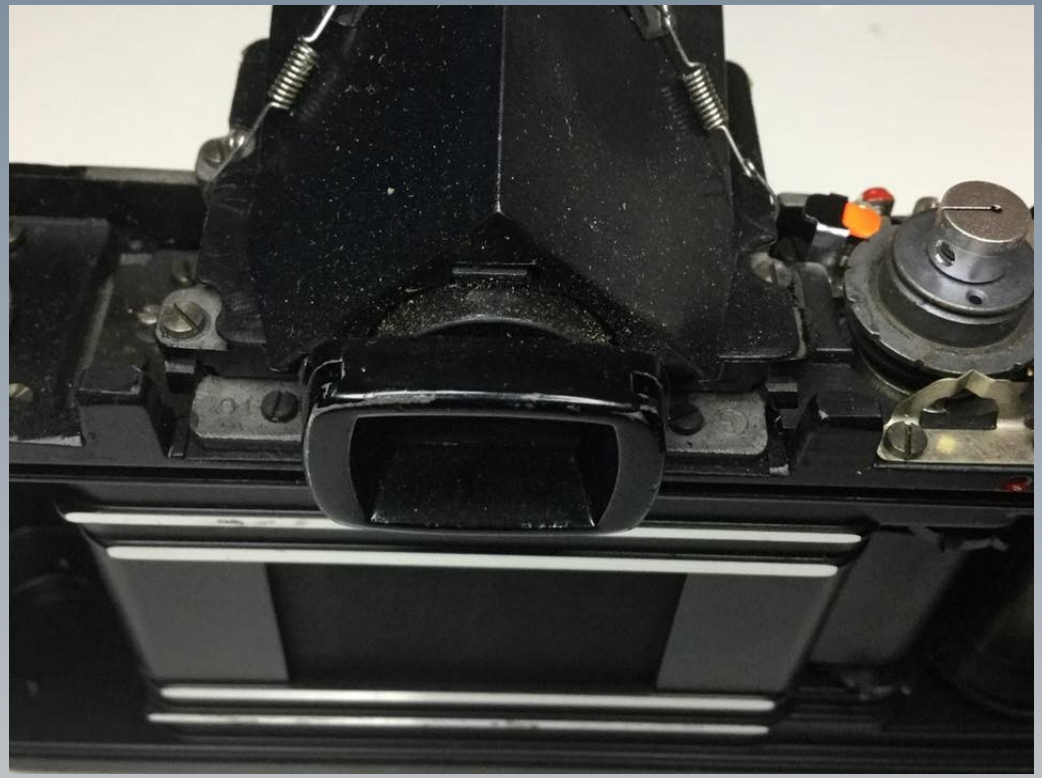

0
5
10
15
20
25
30
35

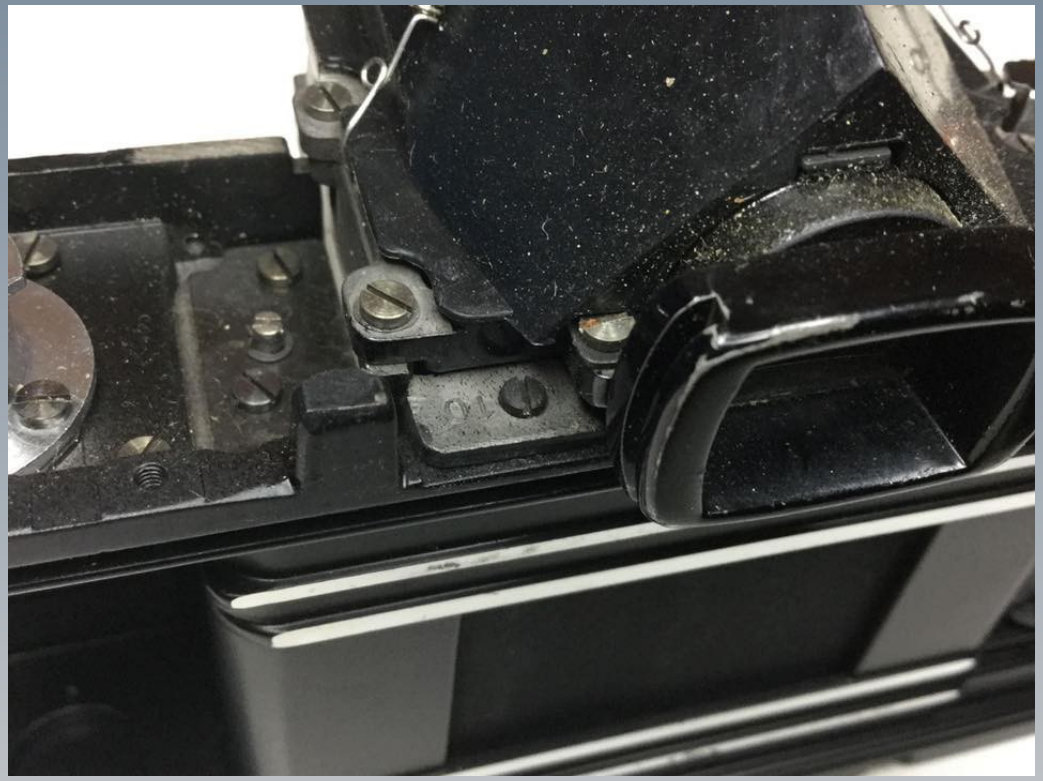
POST #11
https://www.facebook.com/groups/360490091319202/permalink/542138199821056/

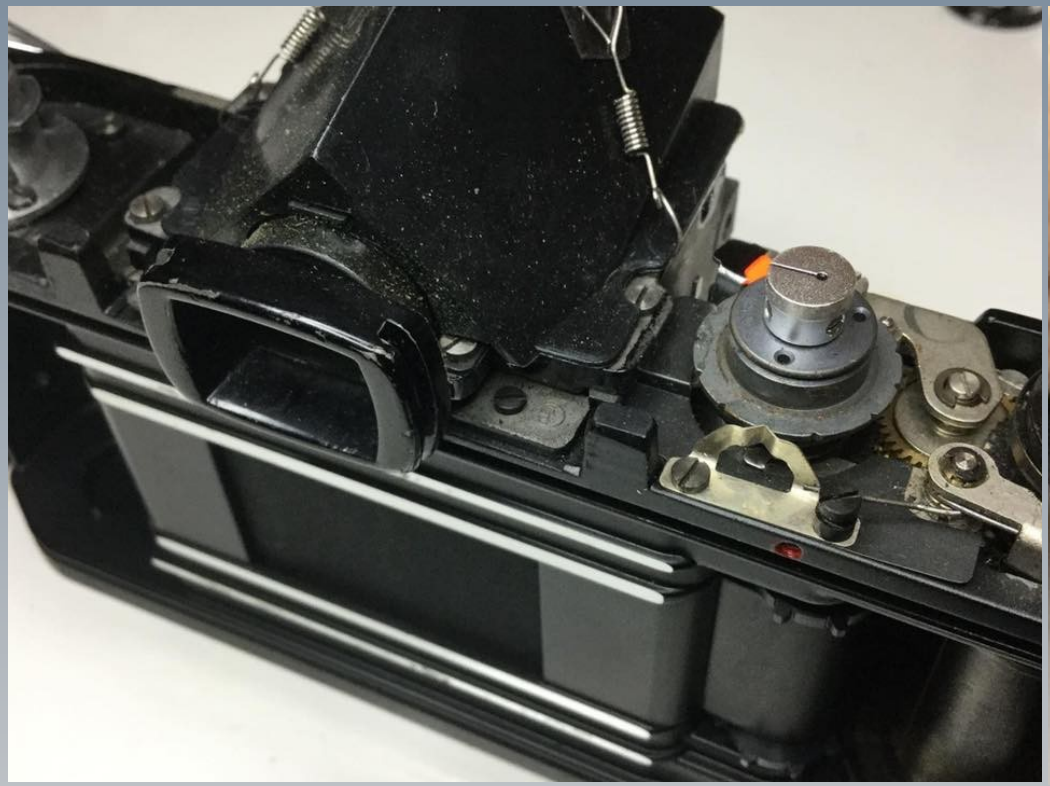
The two flat slotted screws shown are holding the mirror box (assembly) down, there are also two screws - one on either side of the eyepiece - on some models the screws next to the eyepiece can stay in place because they are post screws that serve as guides and do not hold down the mirror box but on this model they have to be removed because there isn't enough room to slide the mirror box off while they're in place...remove the two bottom screws and the two upper screws, tilt the upper part of the mirror box forward, watch the sync wires because they have to pass through the hole in the body casting and you don't want to damage anything (really because you don't want to spend time fixing stupid mistakes) and carefully lift out the mirror box...

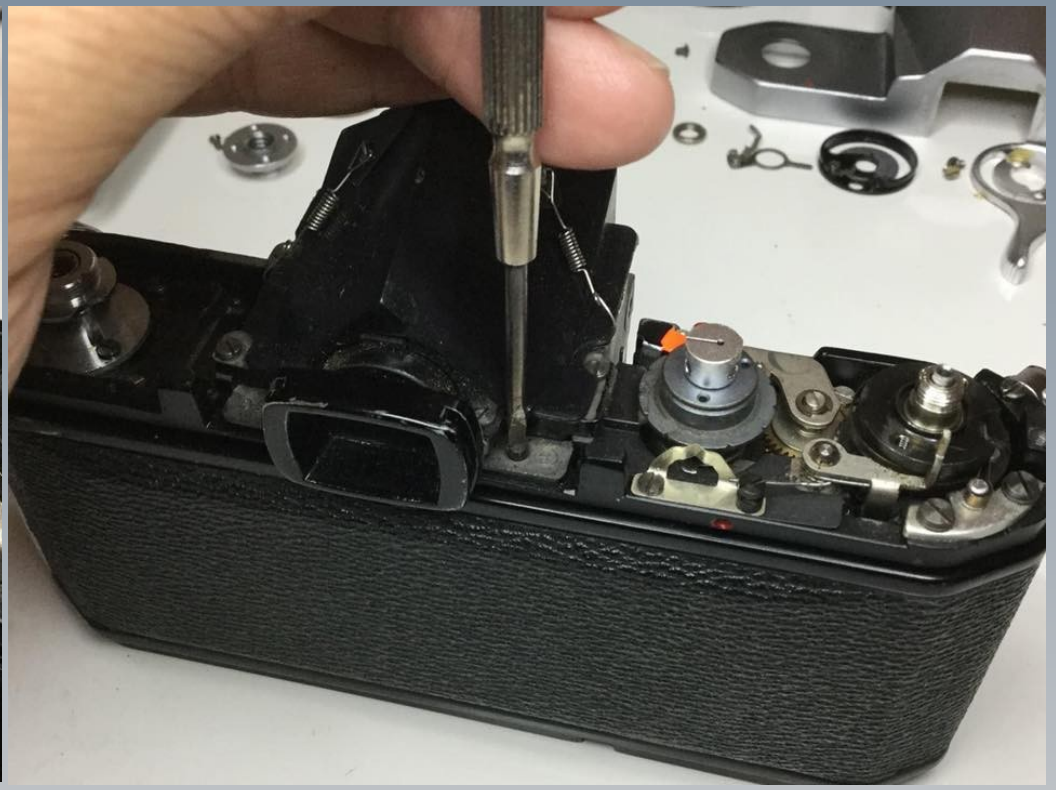








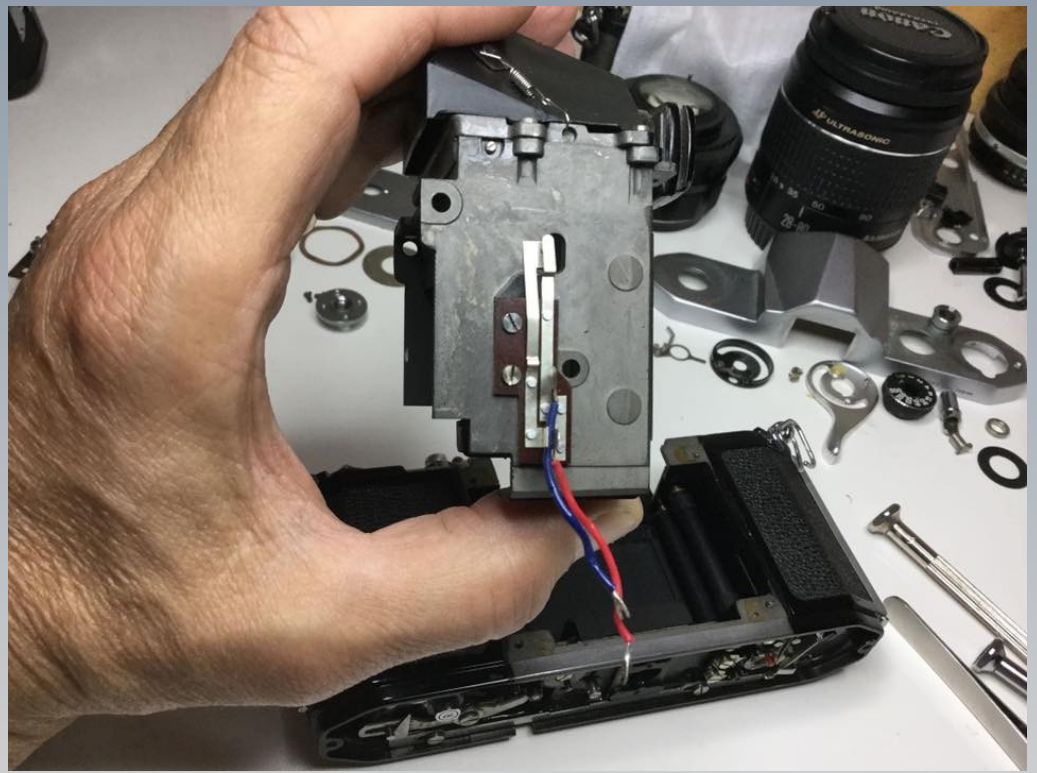


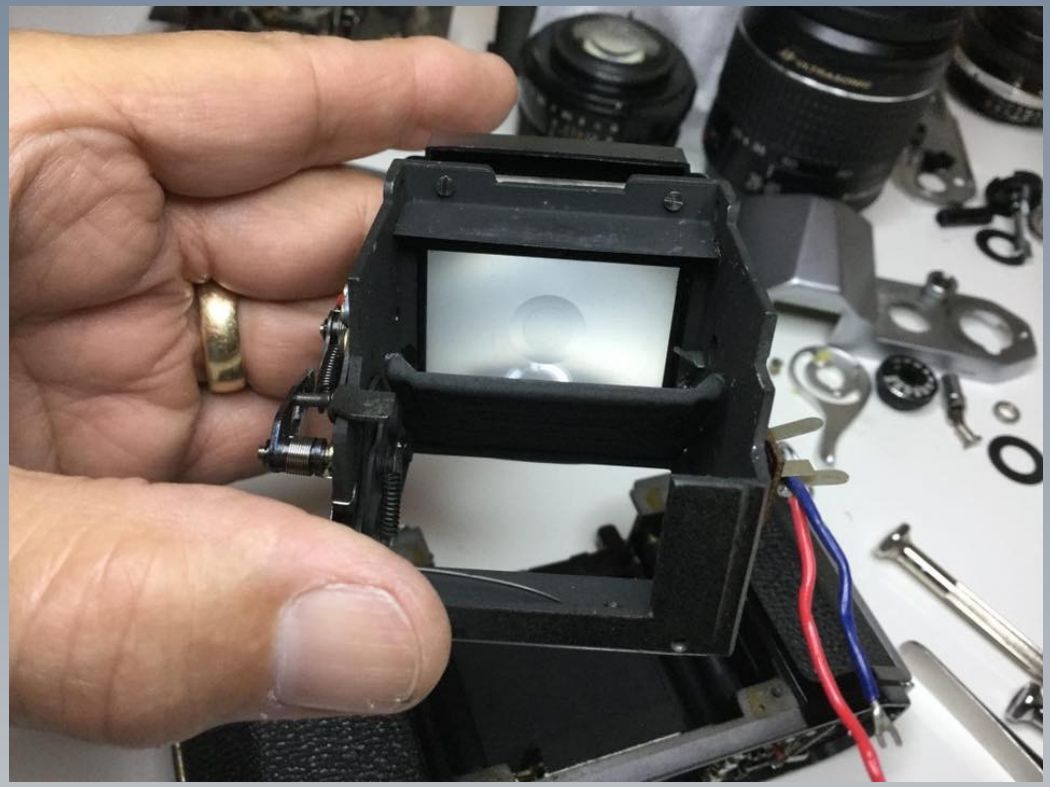


POST #12

https://www.facebook.com/groups/360490091319202/permalink/542138829820993/

Now's the time to look over the mirror unit and get familar with how it works, look for dirt and damage...this happens to be in really nice shape despite the debris I found in the bottom cover...we'll have to clean and lubricate this mirror unit later...

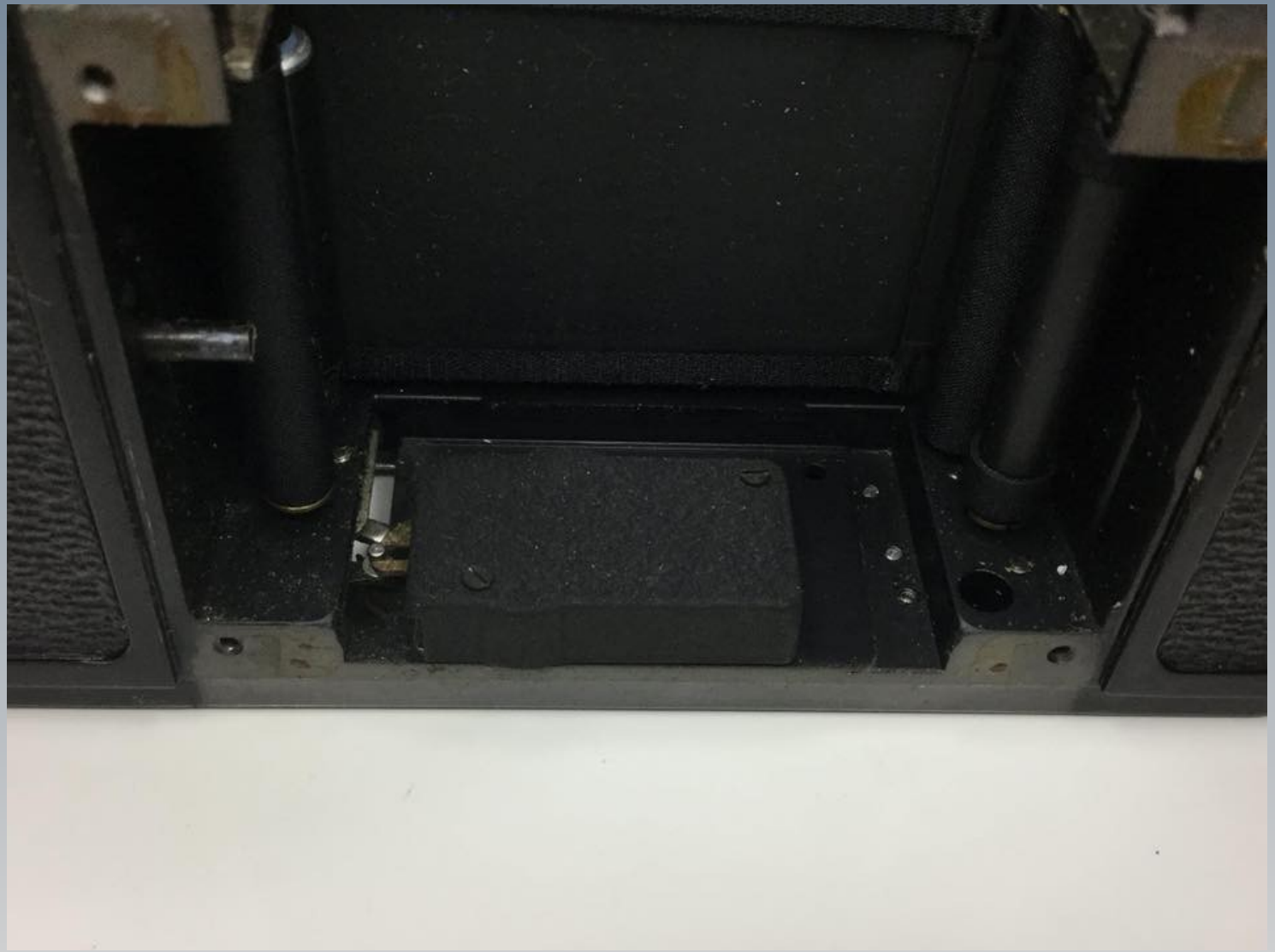


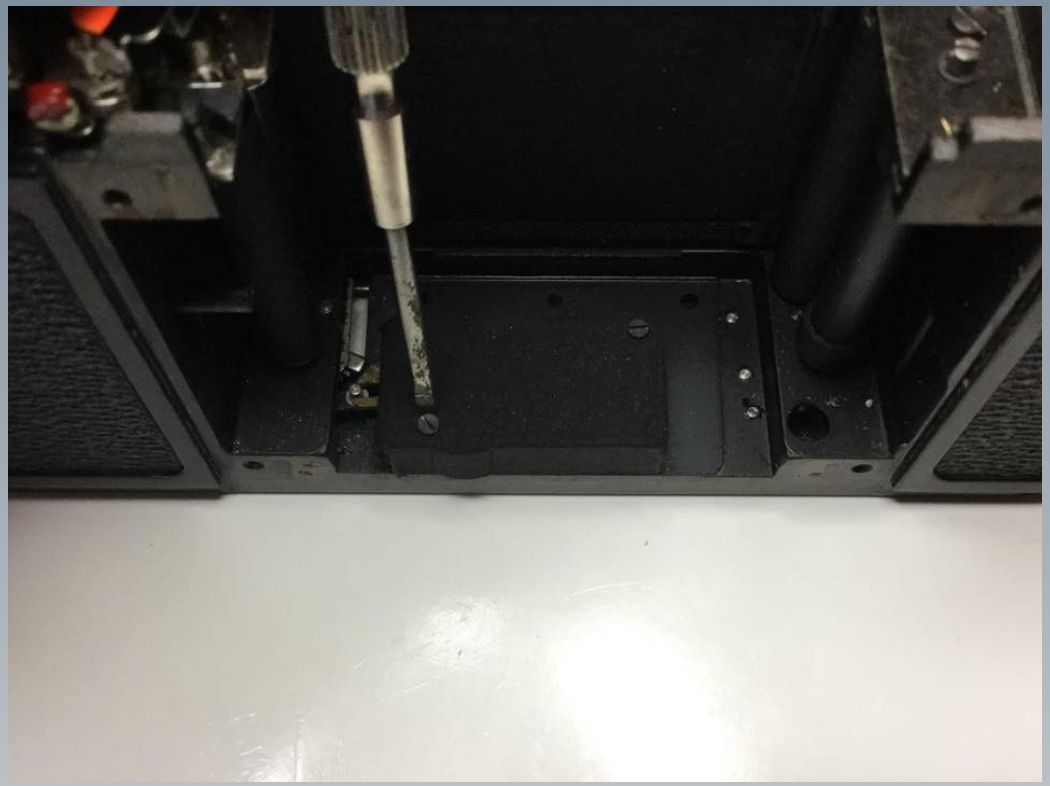


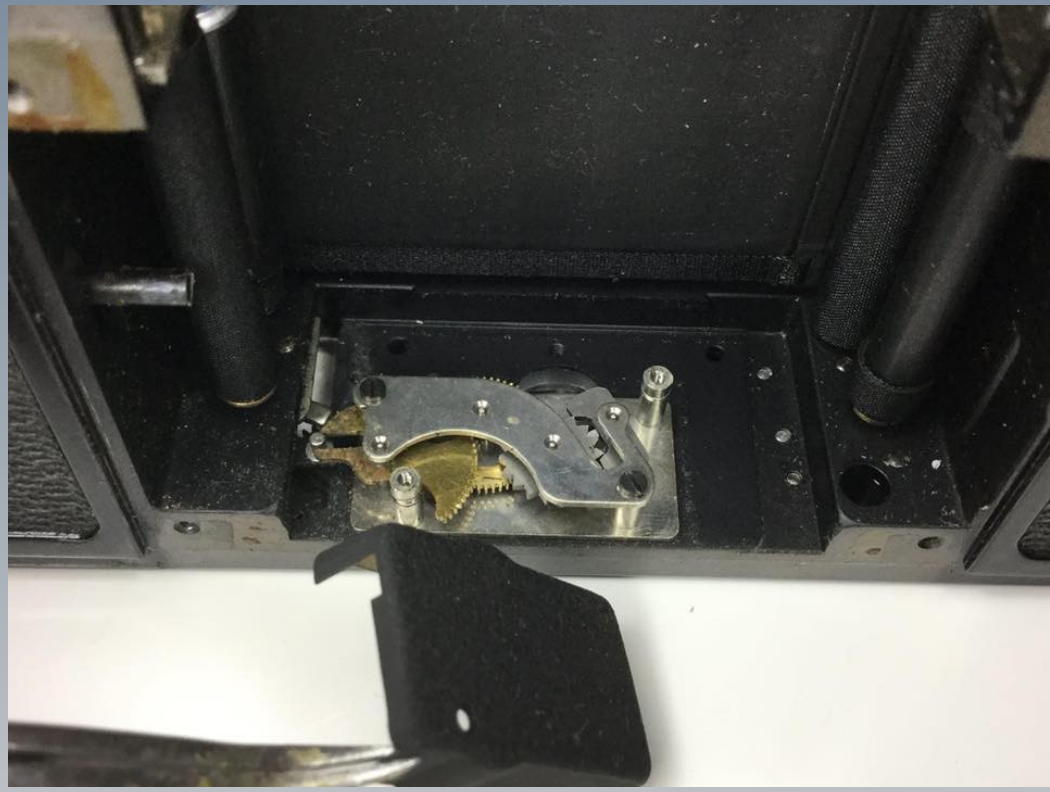
POST #13

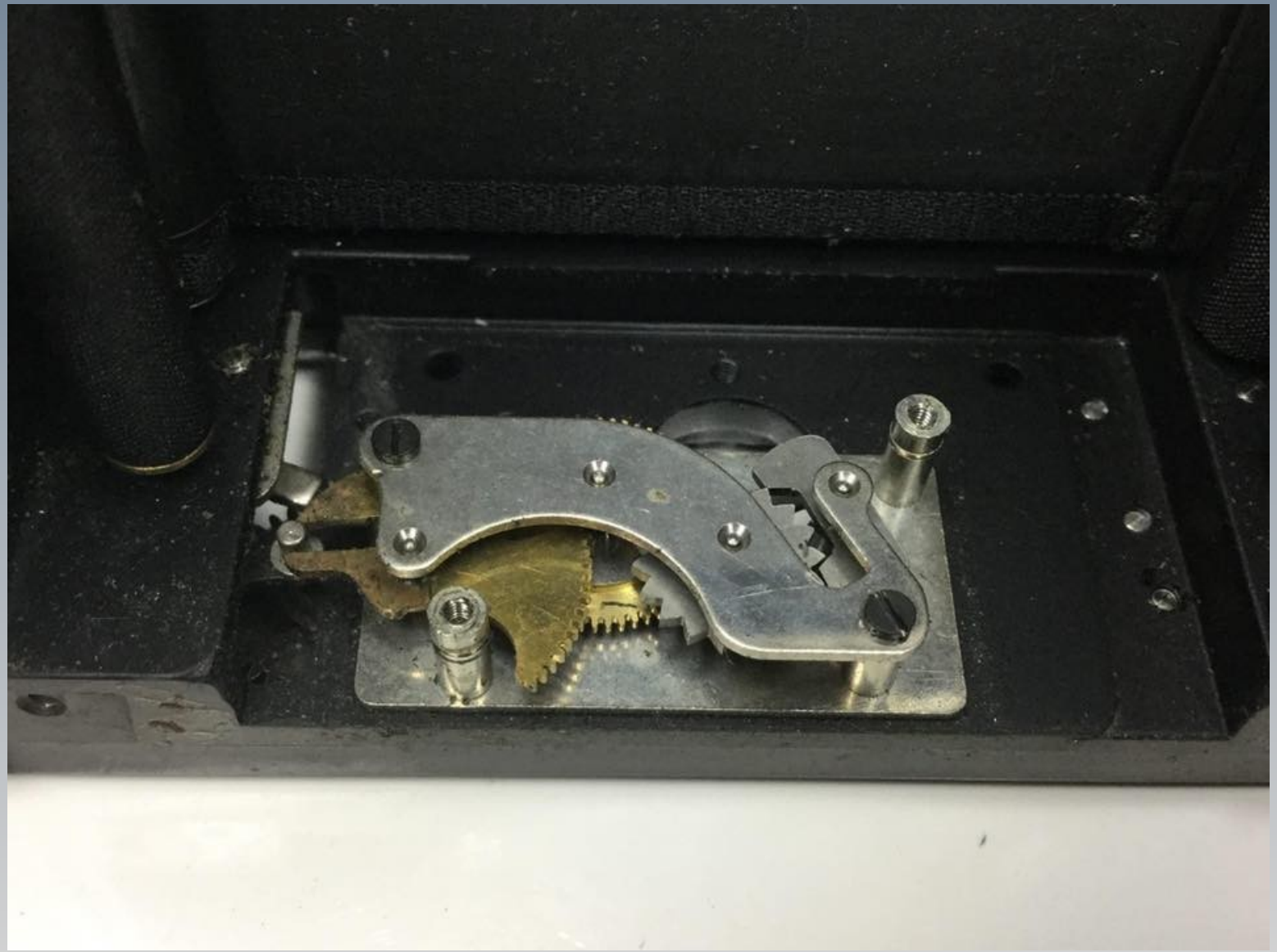
https://www.facebook.com/groups/3604900913192O2/permalink/542139649820911/

At the bottom of the camera body casting there is a cover held by two slotted flat head screws, the slow speed governor (speeds escapement) is underneath, remove the two screws, lift off the cover and there it is, the slow speed governor...right where all the dust and debris in the camera falls to when the camera is held in the normal hortizontal picture taking position...who thought of that? Make a point to clean, lubricate and adjust it later before putting the mirror box back in...GET THIS - two screws hold it in from the bottom, when they're loose the governor will move around a little...changing the depth of engagement with the operating lever...changing the speeds...MARK the outline where its held to the body casting with a thin pencil lead so when you reassemble it later the speeds are pretty close and you only have to make minor adjustments to the position to make the slow speeds accurate...its late, time to take a break and look over the condition of the parts and mechanism, make notes of anything that needs to be addressed, tomorrow, I'll clean, lubricate the necessary points and make adjustments as I begin to reassemble the camera, a word from experience; after lubrication let it sit for a while, firing the shutter letting the shutter oil saturate the bearings, then adjust it...if you adjust it too soon, you'll have to readjust the speeds later for the best accuracy...that being said, you should always recheck it after 24 hours, occasionally minor adjustments need to be made to keep the highest speeds within tolerance.





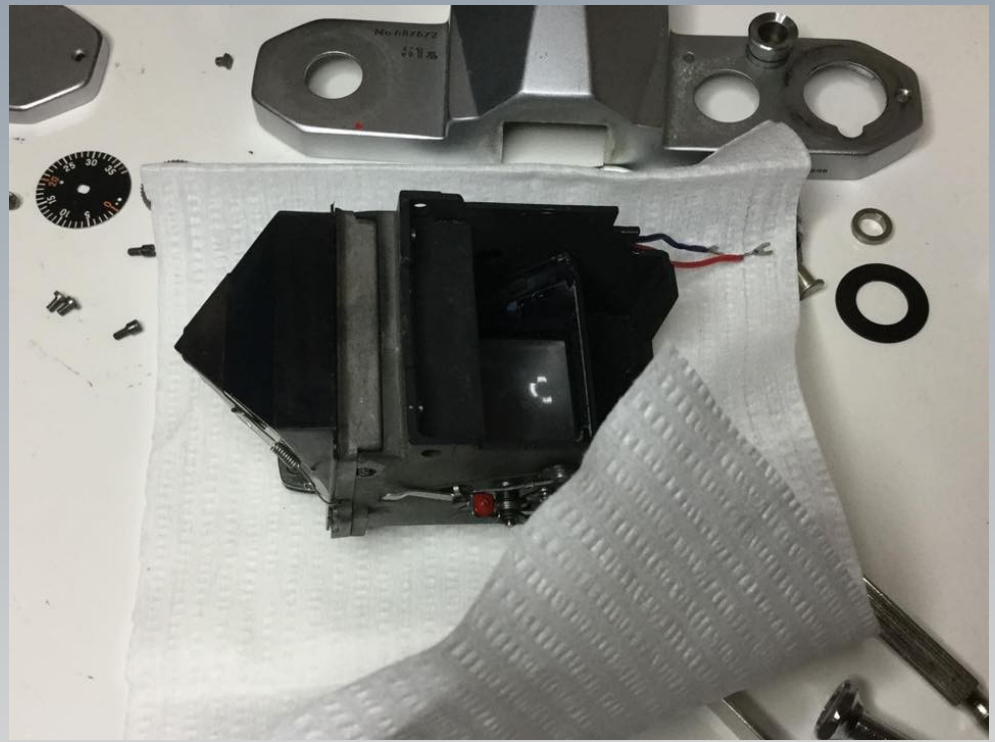




POST #14

https://www.facebook.com/groups/360490091319202/permalink/542140499820826/

Something I learned from experience (making stupid mistakes) is this; the focusing screen is so delicate touching it can damage the etched concentric rings in the exposed bottom of the screen meant to brighten the image by bouncing the light around on the surface of the screen...cover it up, sometimes with plastic, splashing alcohol on it will cause you so much heartburn ...

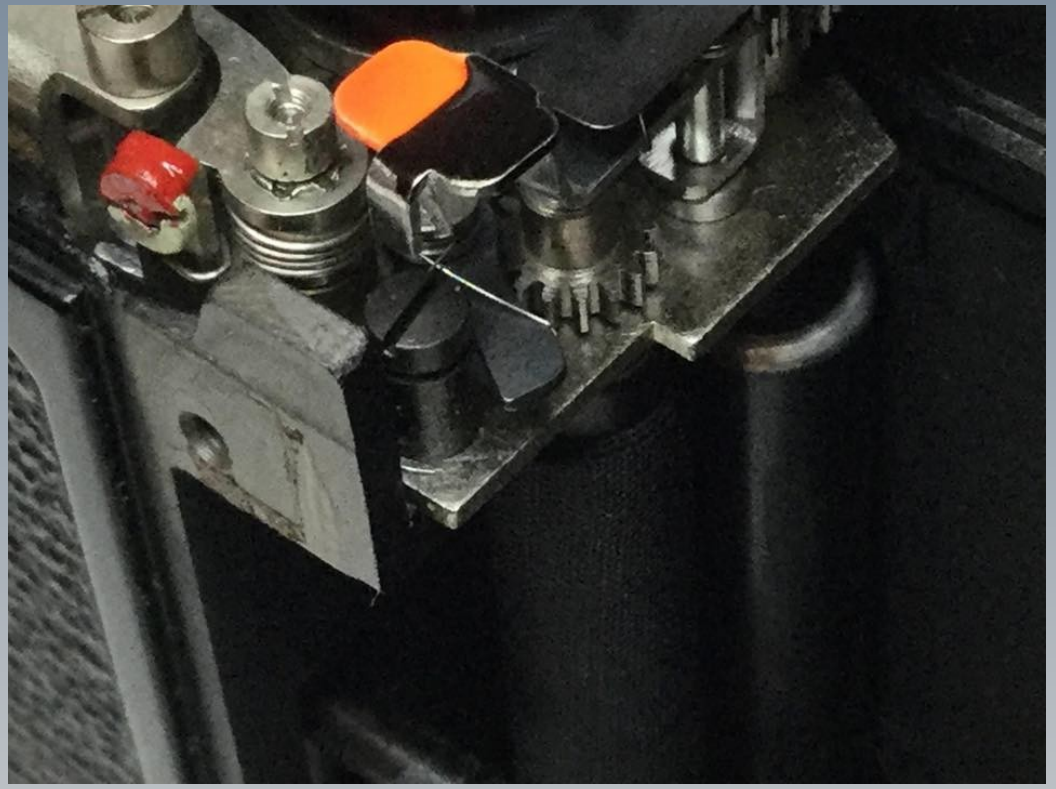


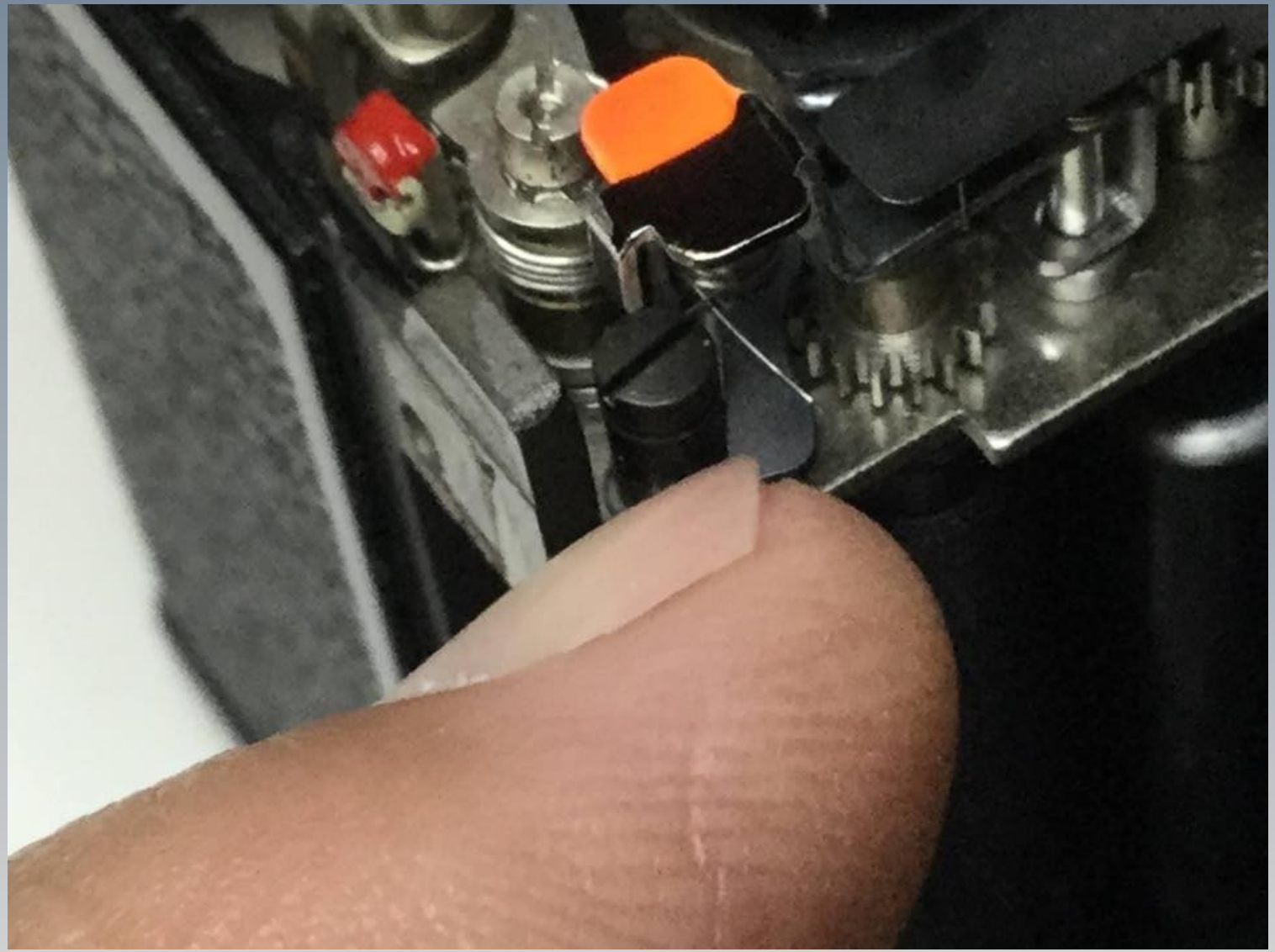
POST #15

https://www.facebook.com/groups/360490091319202/permalink/542141413154068/

If you have access to a small air compressor adjust the output pressure to 10-20 PSI, carefully blow any debris from the camera DON'T BLOW DIRECTLY ON THE SHUTTER CURTAINS ESPECIALLY WITH THE FILM DOOR OPEN, you can blow these curtains out of position damaging them, Blow inside the mirror cavity, the top gear set, the bottom and film compartment, you don't want any dirt sticking to any lubricant. Re-attach the winding lever, one screw should hold it down, turn the camera toward you, wind it - you'll see the shutter curtains move from the rewind side to the winding side, the shutter will lock in the cocked or wound position. Find the release slide, in the photos I've shown it and then in sequence depressed the release slide with my finger (this is the very same place the loose release button was sitting when the camera was disassembled), in the next sequence of photos looking to the right of the release slide in the mirror cavity there is a gray lever with a spring attached, this is the lever the mirror unit releases when you depress the shutter button, push it back toward the rear of the camera body and the shutter will release...it will stay open on "bulb" until you release pressure on the release slide, the 2nd shutter curtain will then close. You've just imitated the cycle of operation using your fingers to do the action the mirror does - here's how a mechanical 35mm SLR works - When you wind the camera, the winding mechanism winds the film, it also cocks (winds or charges) the shutter and mirror unit, the release, winding and mirror mechanisms are held in place with a one-way clutch or locking lever - When you depress the release button the mirror is released, the mirror rises and at the top of its movement the mirror releases the shutter (this way the mirror is out of the light path to the film when the shutter opens) - The mirror releases the first curtain and the shutter opens, depending upon the shutter speed selected the second shutter curtain follows at either a slit width at high speeds or at the flash sync speed and below the entire film plane is exposed to light before the shutter closes

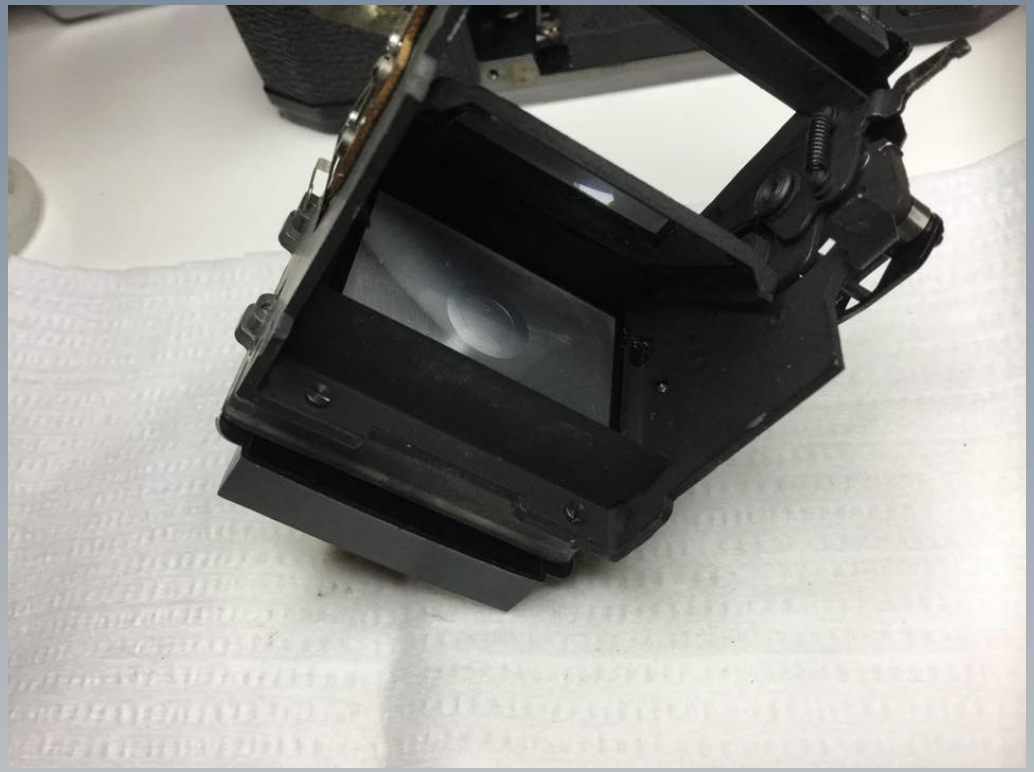
(how high speeds are attained is as follows, the shutter curtains travel at a set speed across the film plane, to attain higher effective speeds the first curtain opens and the second curctain follows at what is called a "slit width" that is only a small opening travels across the film plane resulting in a smalller portion of the film being exposed to light at a time, as the speeds drop from say 1/1000 to 1/125 the slit width becomes larger until the flash sync speed whereupon the entire film plane is exposed to the light for longer periods of times until 1 second. Why is the shutter completely open at the flash sync speed? Because the flash speed is much faster and the entire film frame must be exposed at once... If you want to experiment with this knowledge grab your camera, no lens no film, open the back door, attach a flash and set the shutter speed at the highest speed, aim the camera at a white wall and fire the shutter, the flash will fire but if you watch the film plane you'll only see a small opening where the light came through, sequentially set lower and lower speeds firing the shutter and watching the flash at the film plane and you'll see a larger and larger area exposed until you get down to the flash sync speed and below, then the entire film plane will be exposed to light...upon completion of the shutter travel the second shutter curtain releases the mirror from the up position, the mirror drops and the winding mechanism is released allowing you to wind the film to the next frame.

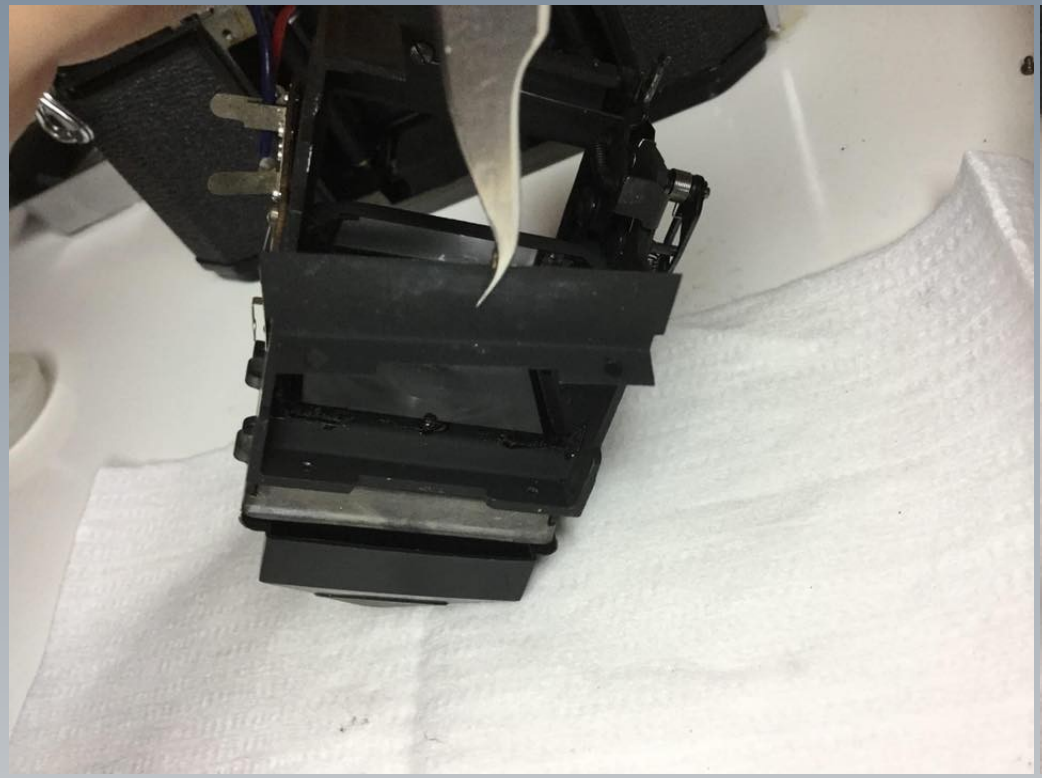


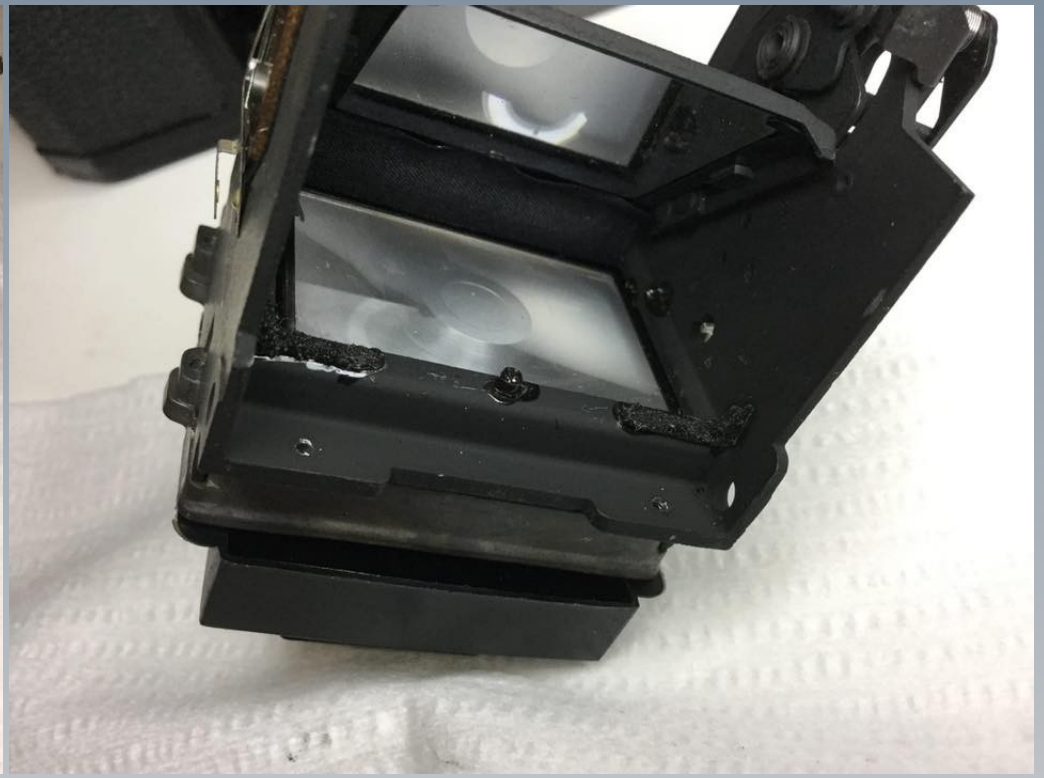


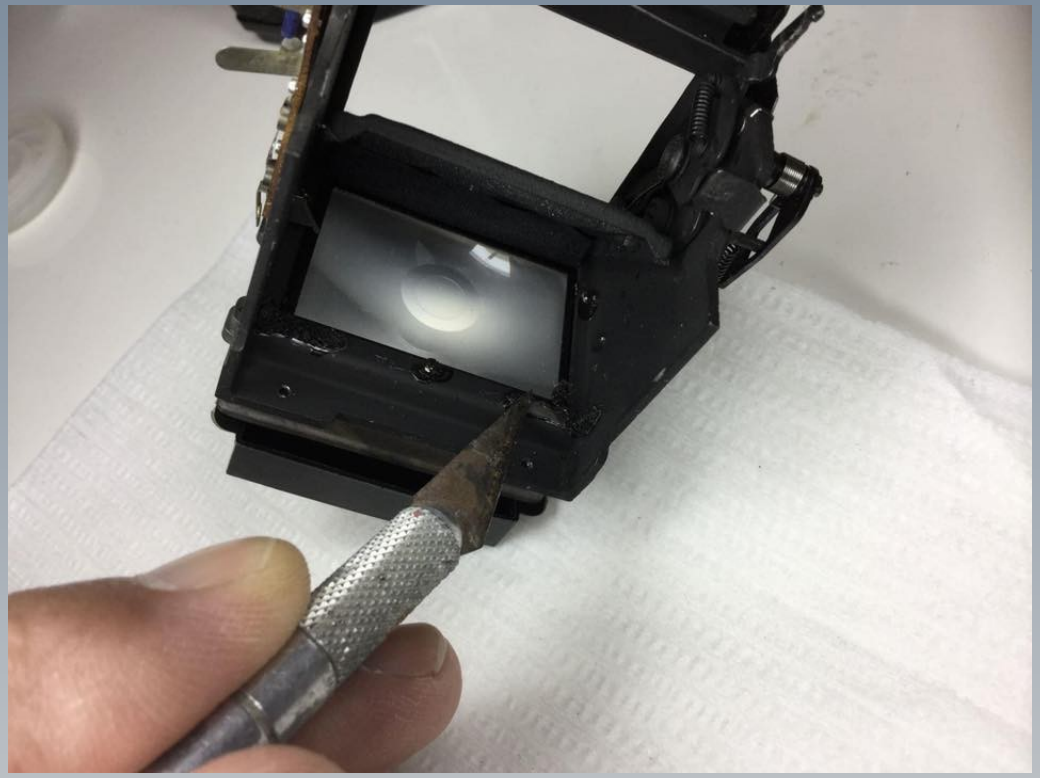
post #16
https://www.facebook.com/groups/360490091319202/permalink/542142389820637/

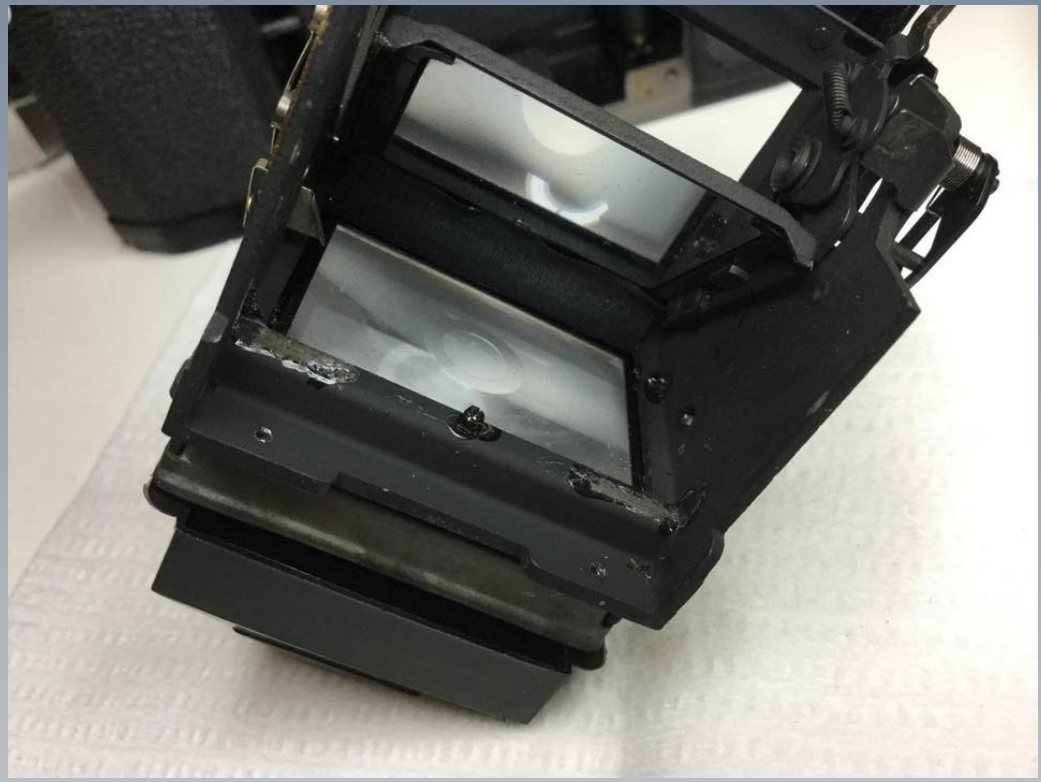
Upon inspection of the mirror unit I can see the mirror up cushions are bad, age has taken its toll and they are sticky with almost no actual cushioning effect. Remove the two screws holding the shield, use an exacto knife to carefully lift off the old material, take care not to scratch anything or damage the focusing screen, after that's done, use a Q Tip dipped in 99% alcohol SQUEEZE OFF all excess alcohol so none will run onto the mirror mechanism or focusing screen and clean the area where the cushions were. Next cut new cushions and install them in place, re-assemble the shield and from experience (stupid mistakes) I apply a small dab of Pliobond to the screw heads to prevent loosening from the mirror vibration during usage.

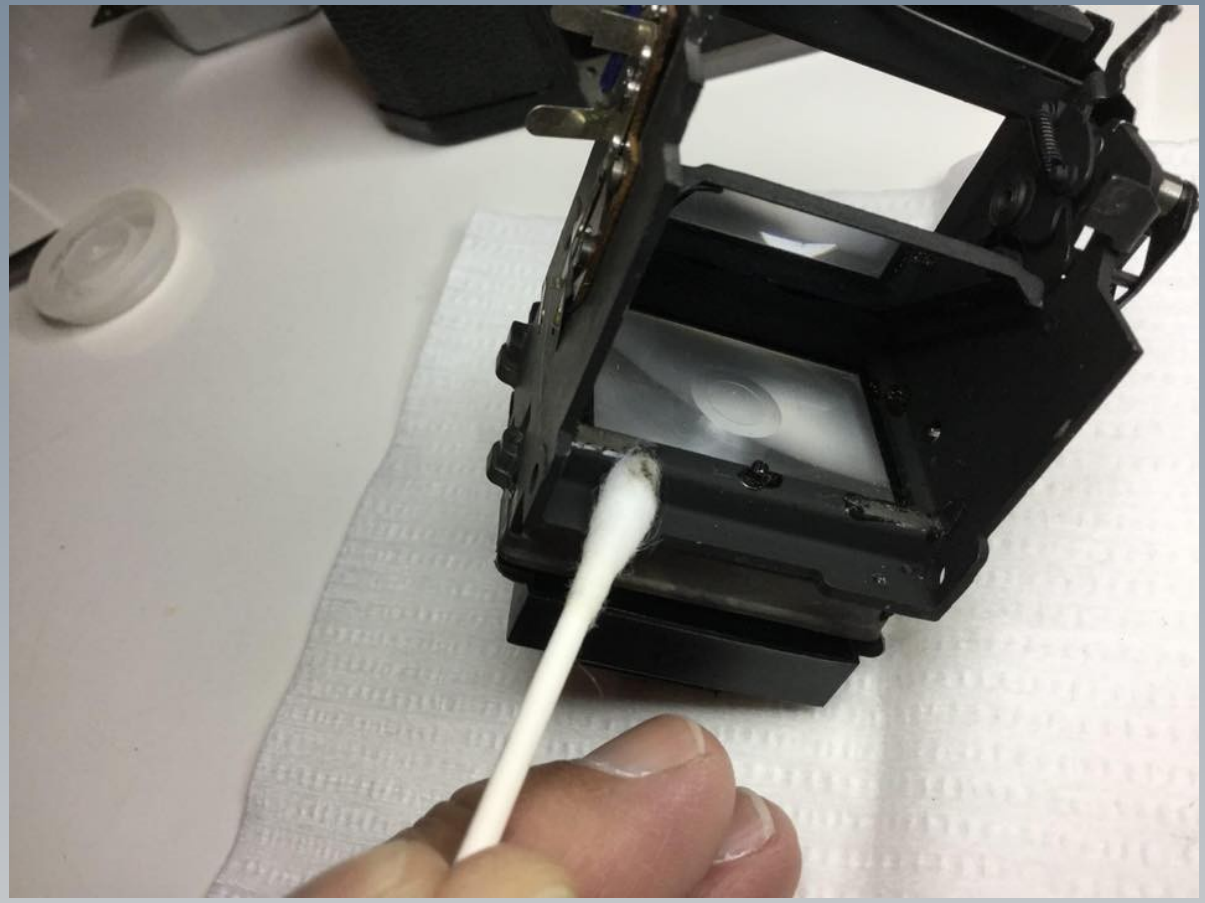


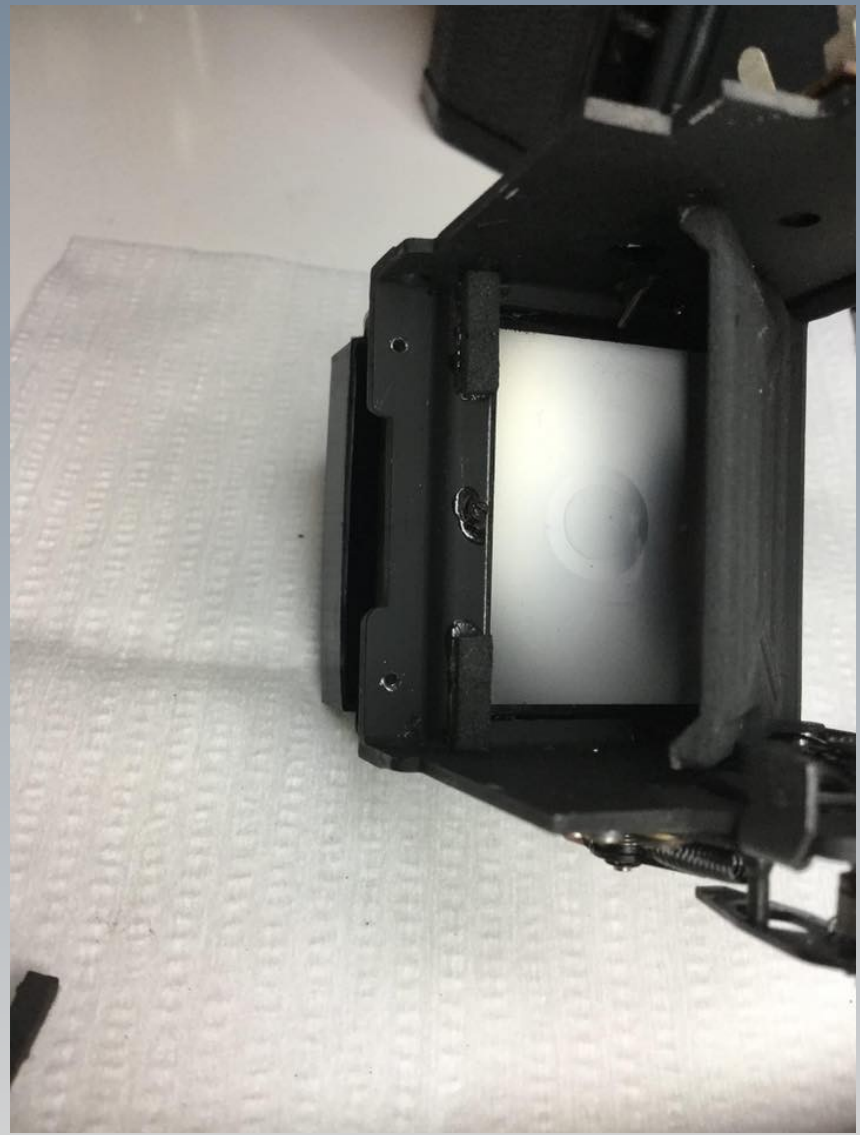


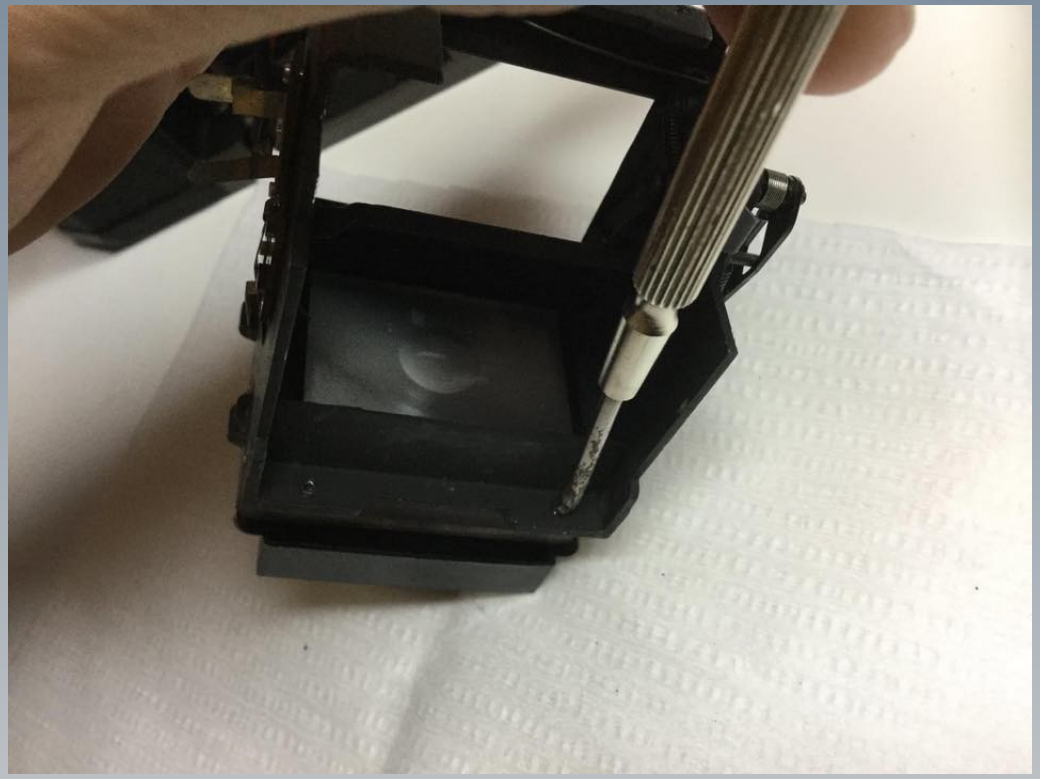


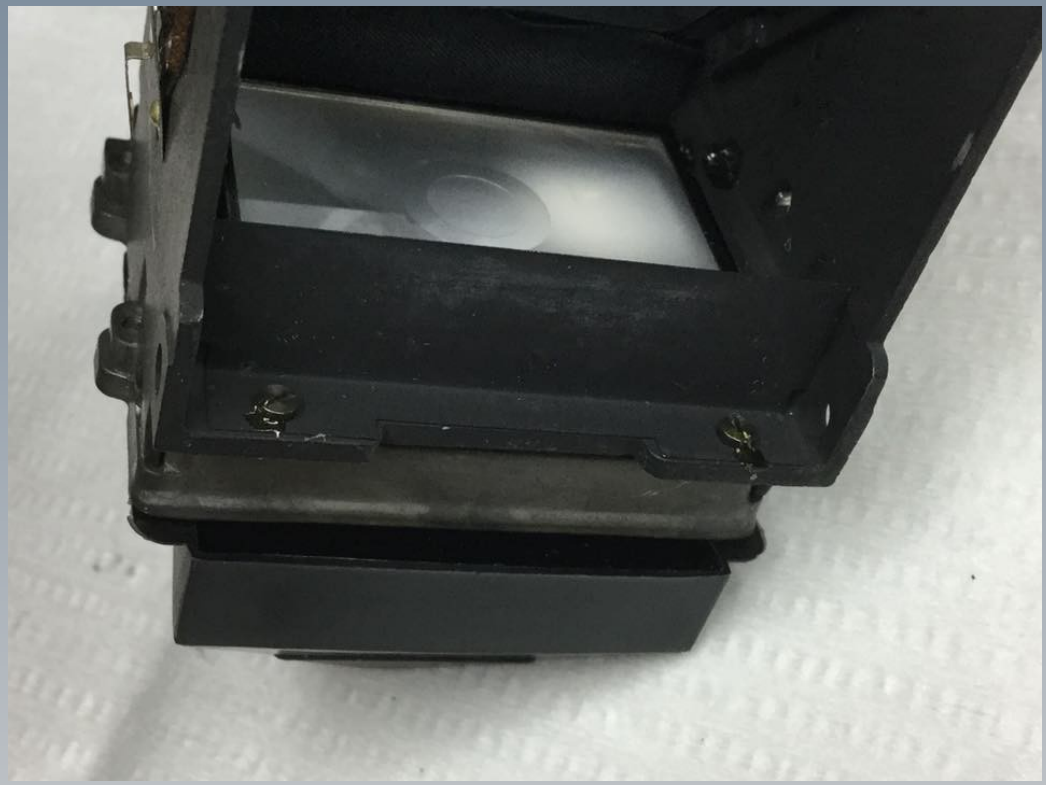












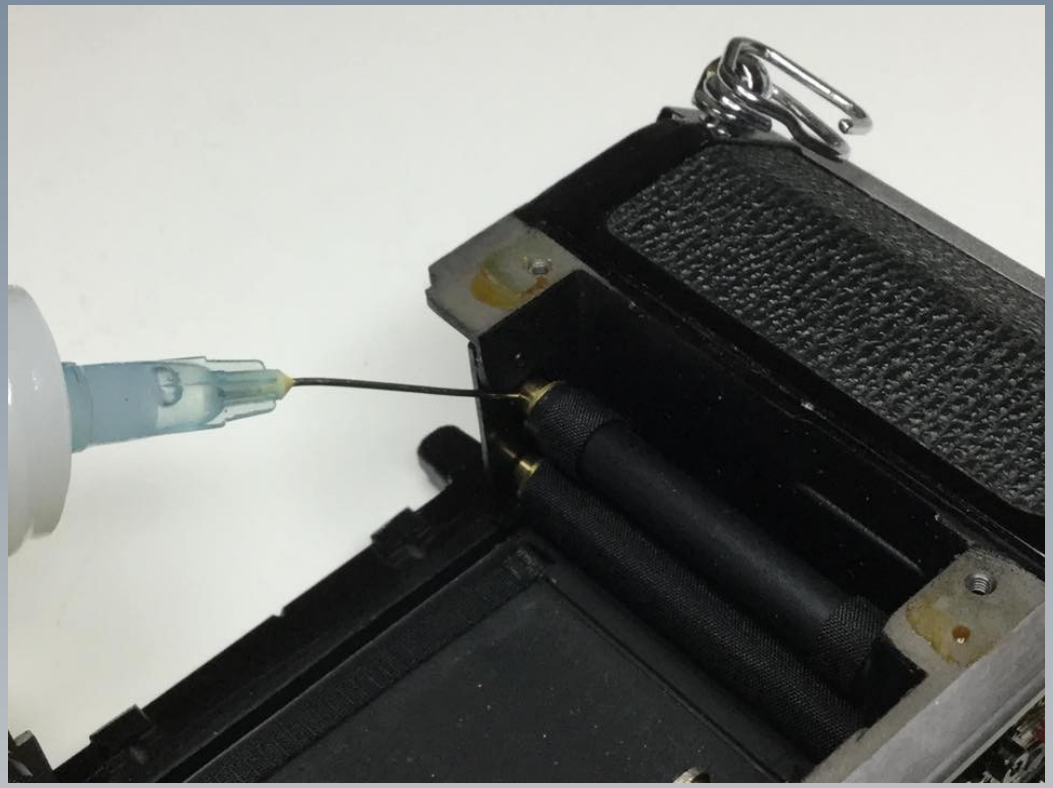
POST #17

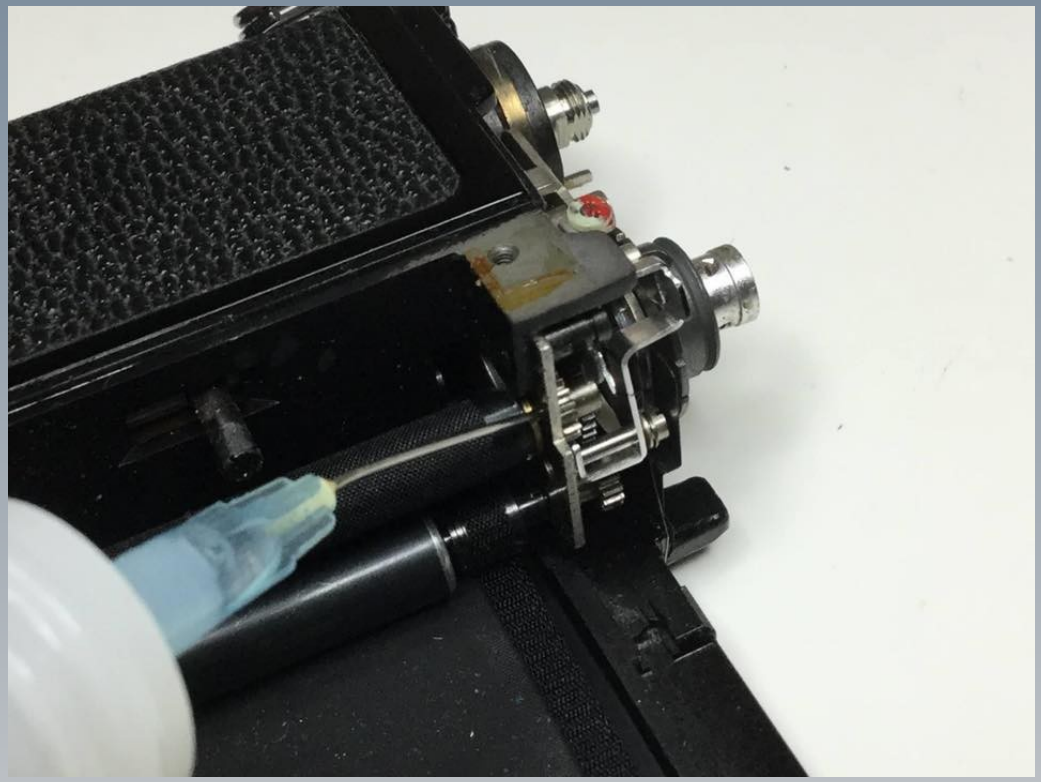
https://www.facebook.com/groups/360490091319202/permalink/542143706487172/

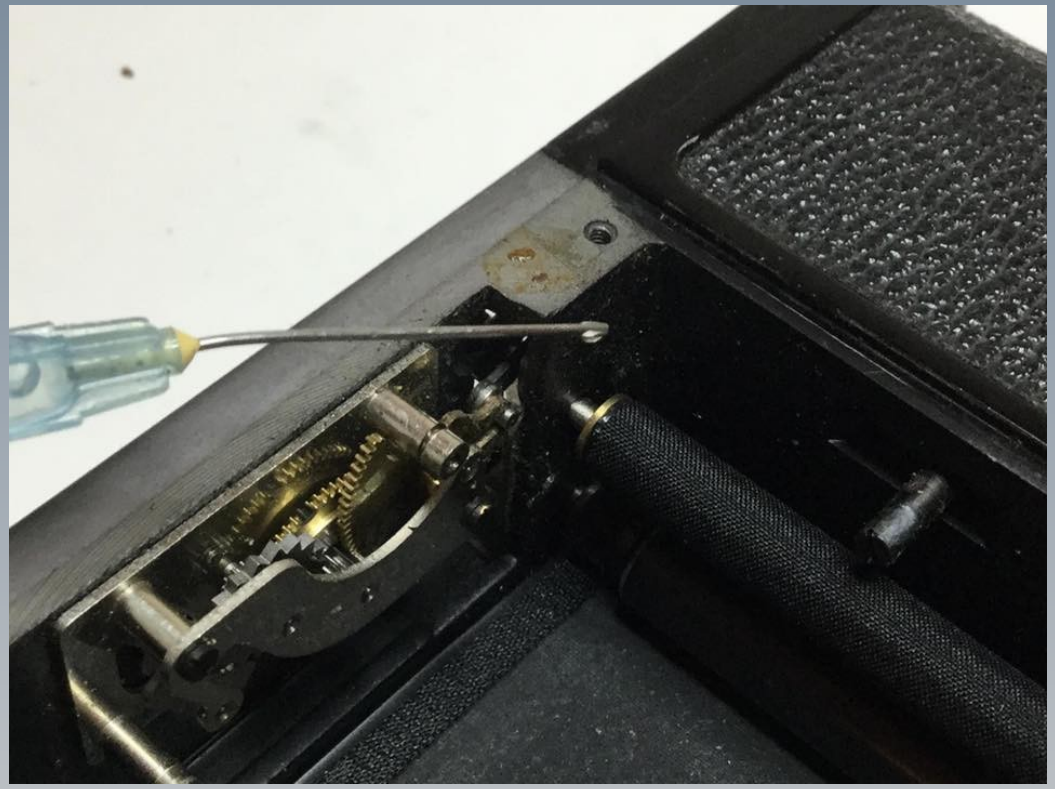
Before oiling the shutter curtain bearings and the high speed moving parts take your finger and gently move the shutter curtain roller up and down, they will move ever so slightly but you'll be able to see the silver part of the shaft where the brass bearing is located, look closely at the photos and get familar with these points.

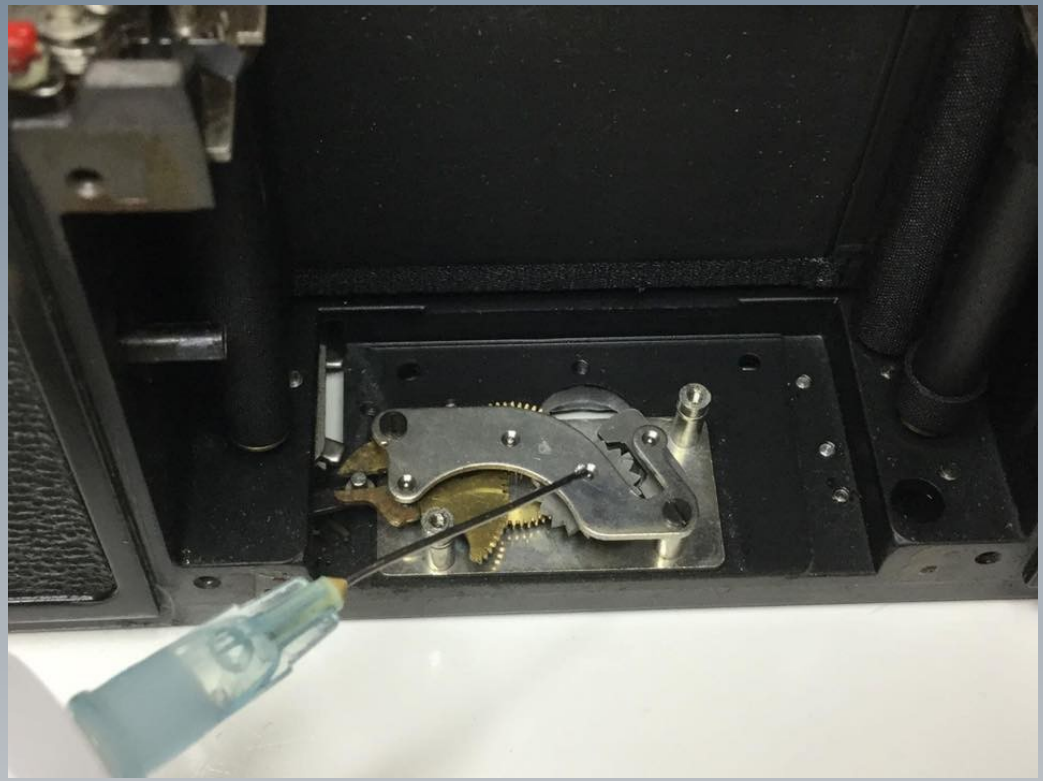
POST #18
https://www.facebook.com/groups/360490091319202/permalink/542145236487019/

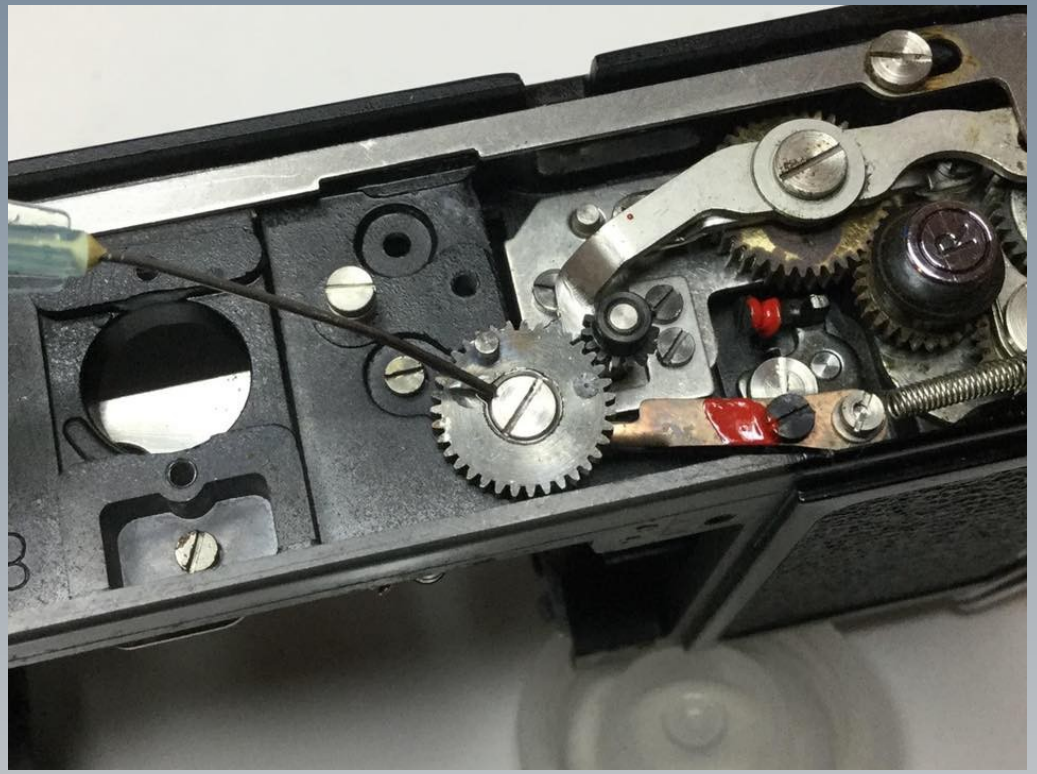
using your oiler...use shutter oil formulated for this application, regular oil is too thick, shutter oil is very lightweight and thin oil...place a single drop...not a big drop A SMALL DROP! on the shutter curtain roller shafts, move the roller up and down with your finger to spread the oil on the shaft...IF YOU GET OIL ON THE SHUTTER MATERIAL GET OFF using a Q-tip with alcohol SQUEEZE THE EXCESS ALCOHOL OFF WITH YOUR FINGERS FIRST... alcohol is a solvent and it will soften the rubber cement holding the shutter curtain material together ... Oil the moving gears at the screw head, the oil will flow to the shaft, oil the slow speed governor bearings...fire the shutter watching the parts move several times and make sure you hit the relevant components.



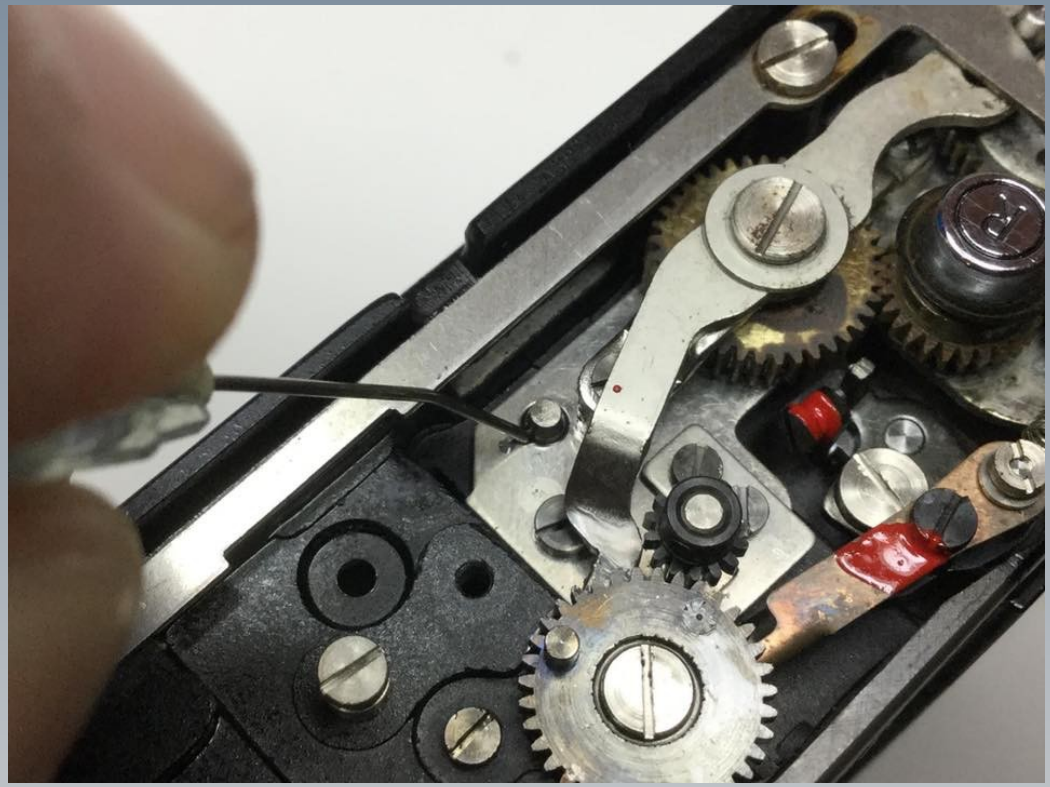


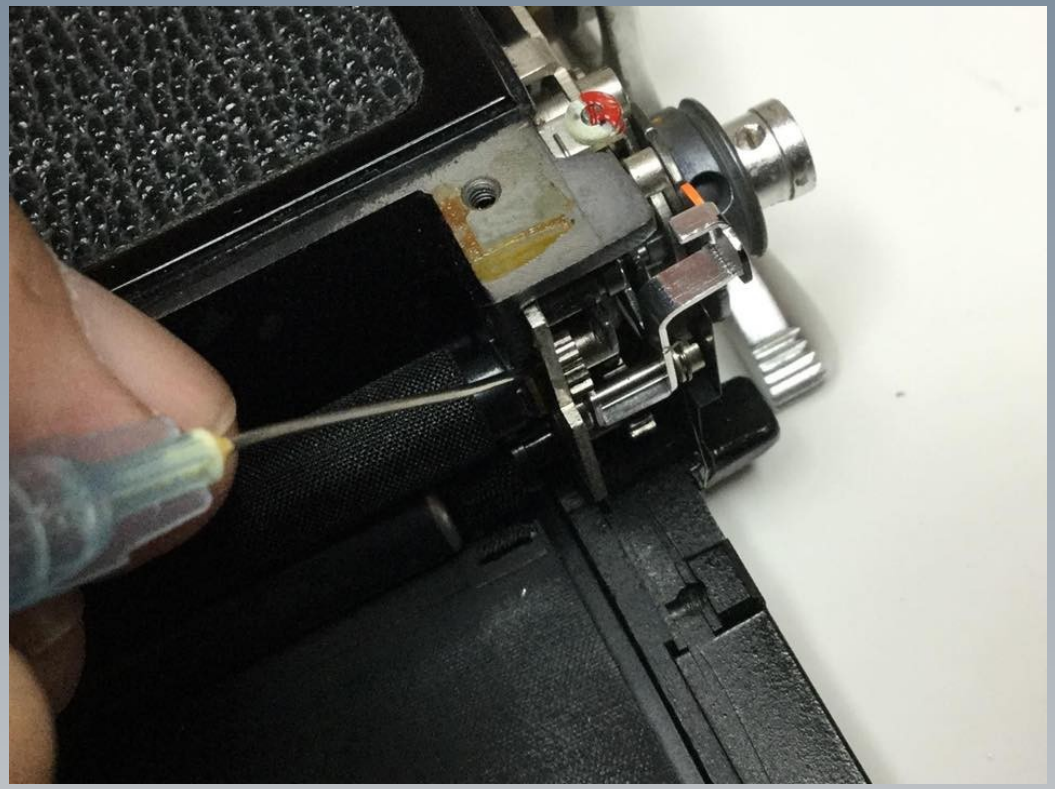


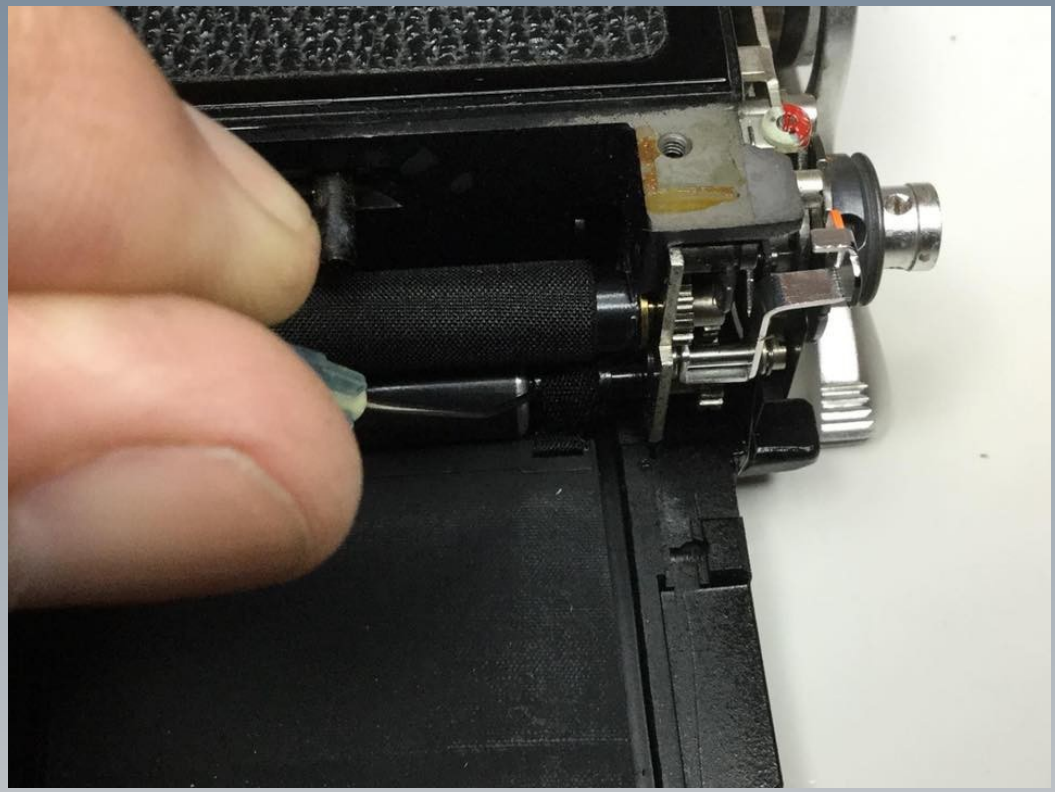





R

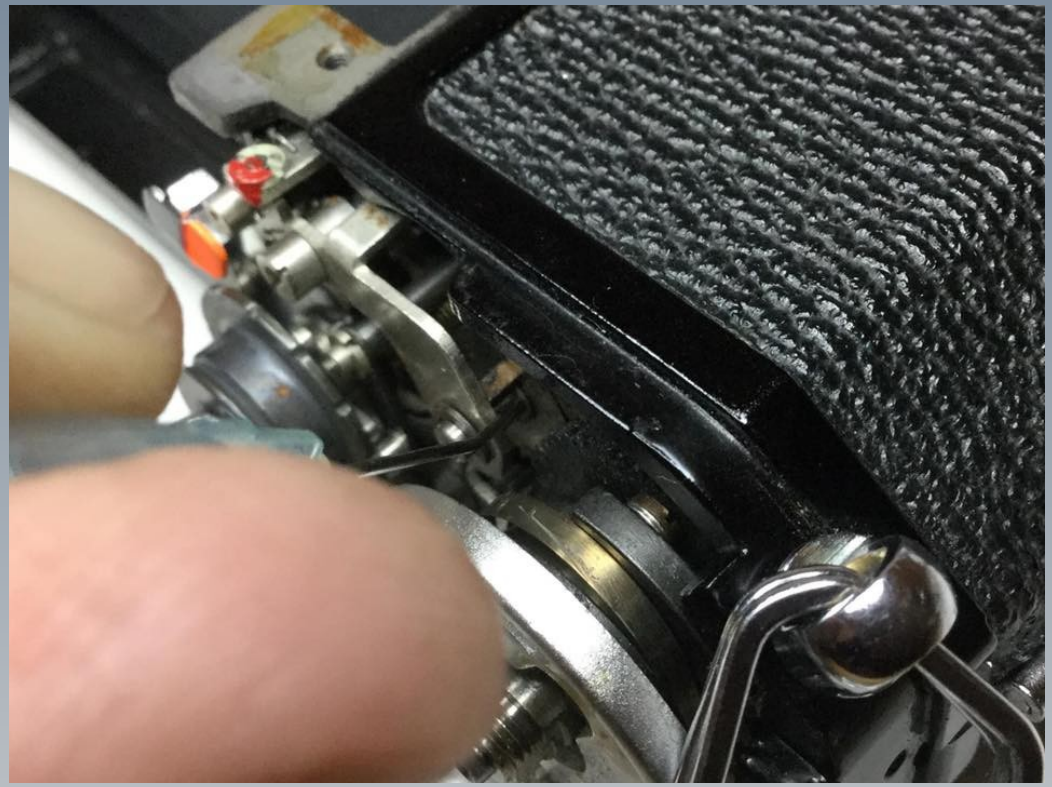


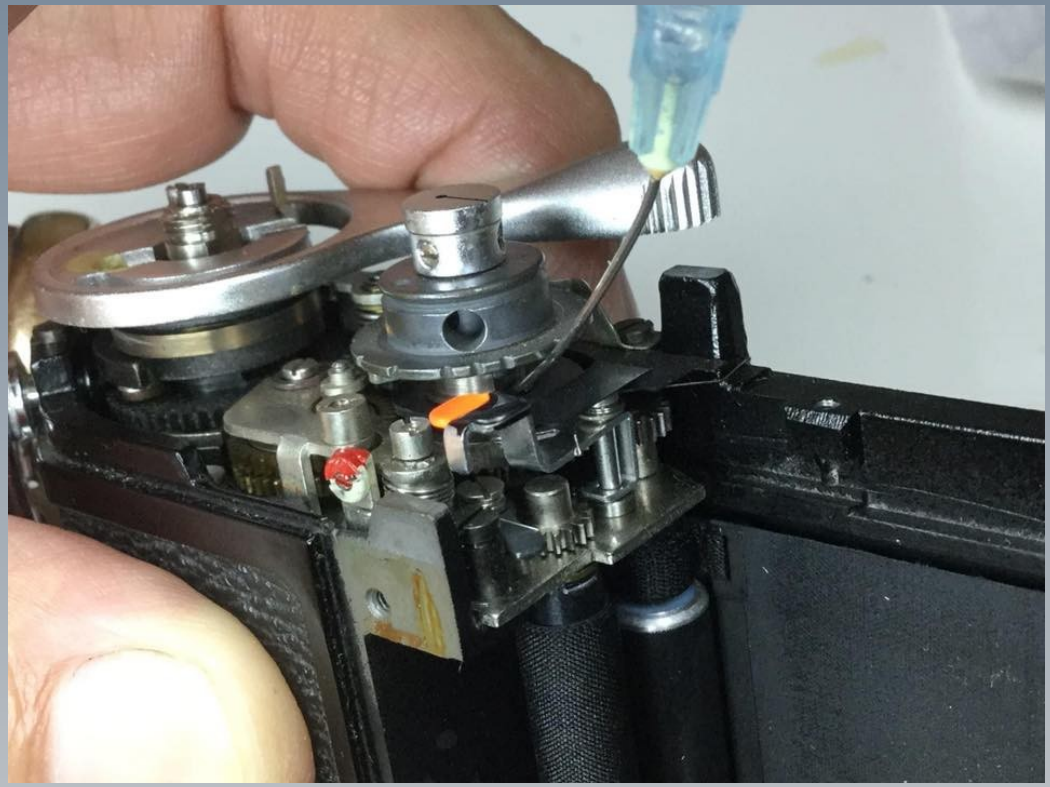


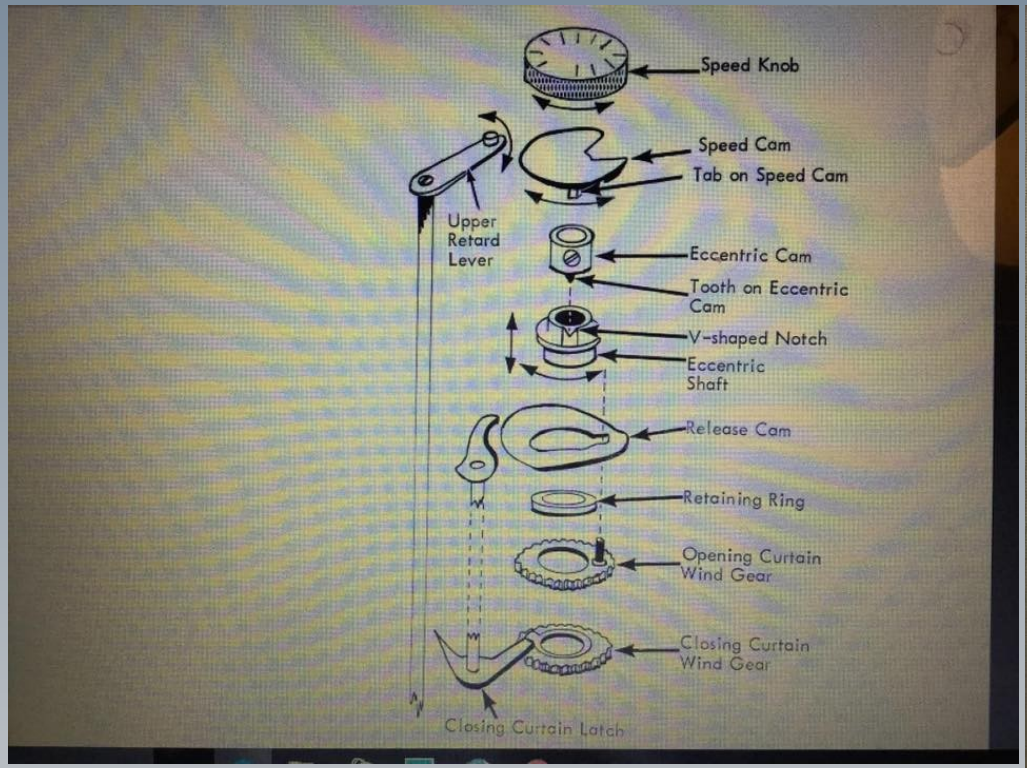


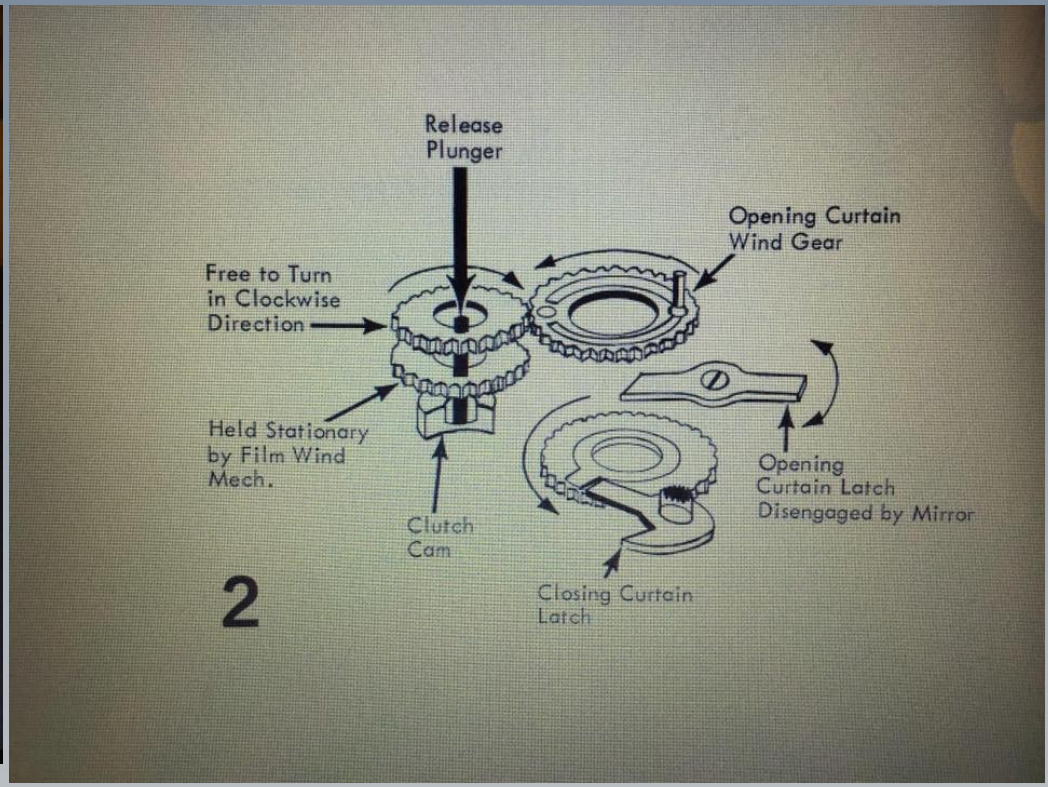
POST #19
https://www.facebook.com/groups/360490091319202/permalink/542147413153468/

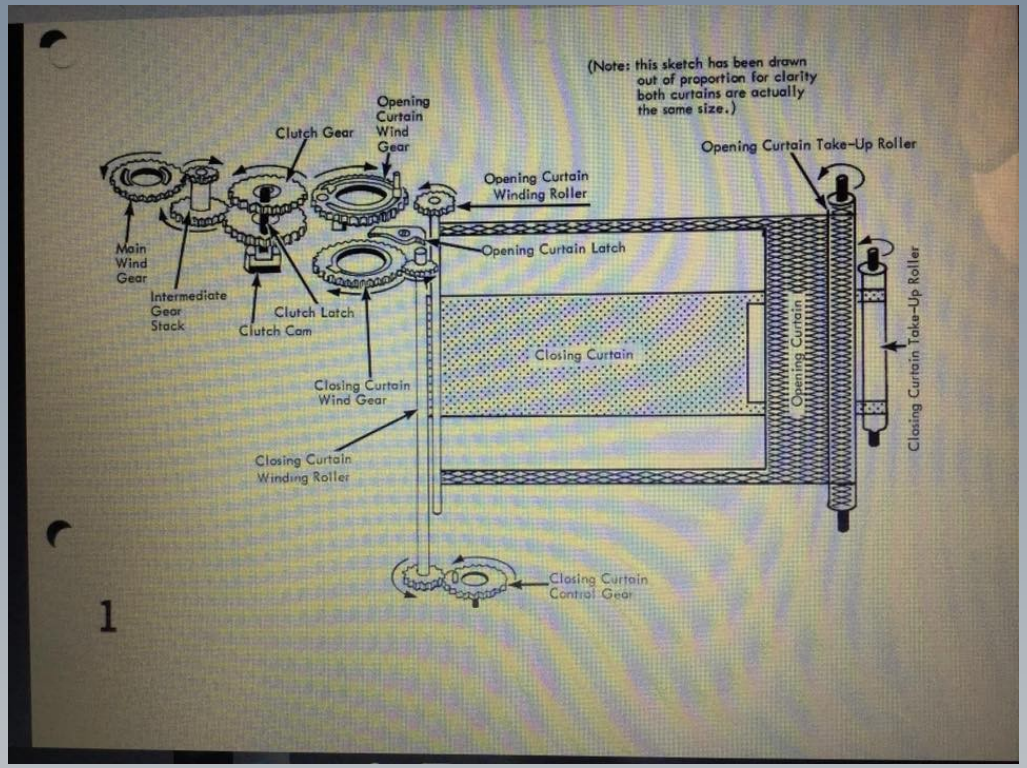
Here's a tricky part, in the speed selector bridge is an eccentric disc called a speed cam in the diagram, I've learned to place a small drop of oil on the cam shaft where it assembles onto the mechanism chassis and also a small drop of oil on the shaft for the two gears that the release plunger passes through, again it's pictured in the diagram...If this mechanism has any corrosion or anything spilled on it such as water damage you'll have to disassemble it and clean the corrosion off and lubricate it ... you'll need a service manual because these gears are "timed" what that means is this, they are assembled with respect to the other parts attached in a certain order and timed in relation of their positions with other parts, if you reassemble them incorrectly, the shutter will not work properly...GET A MANUAL if you have to disassemble this component. After lubricating these points wind and release the camera shutter a few times and let it sit for a few hours giving the oil the opportunity to saturate the lubrication points.

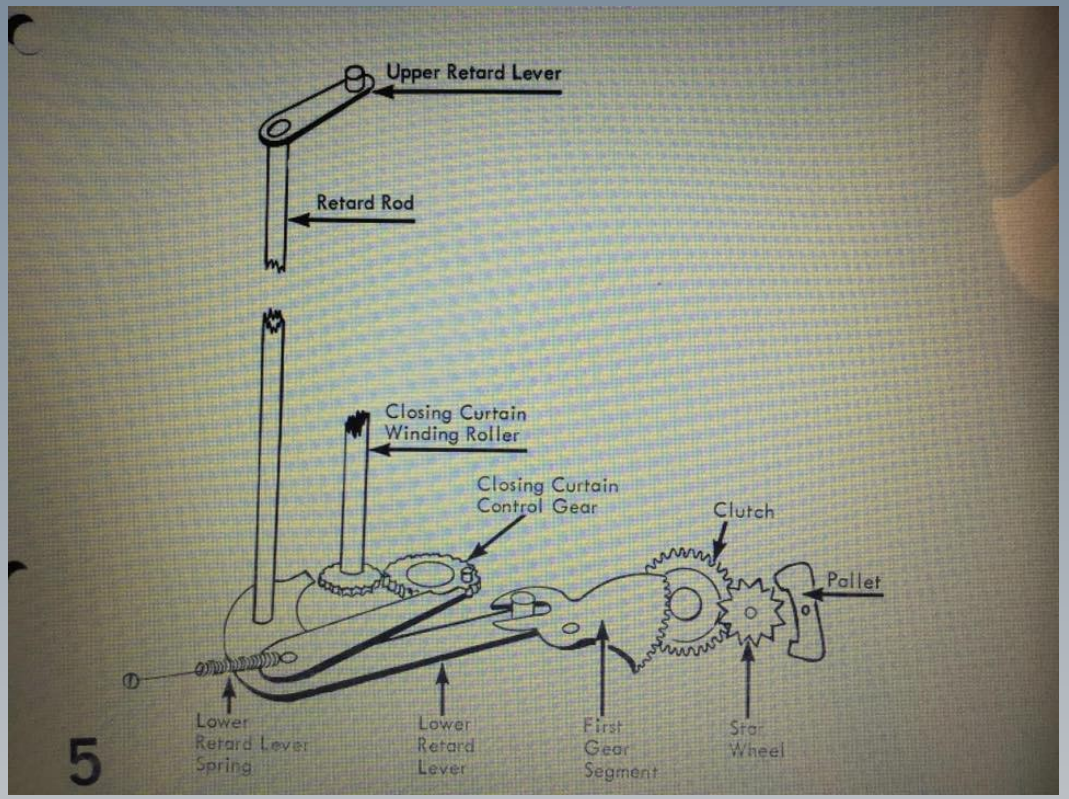





Speed Knob
Speed Cam
Tab on Speed Cam
Upper Retard Lever
Eccentric Cam
Tooth on Eccentric Cam
V-shaped Notch
Eccentric Shaft
Release Cam
Retaining Ring
Opening Curtain Wind Gear
Closing Curtain Wind Gear
Closing Curtain Latch

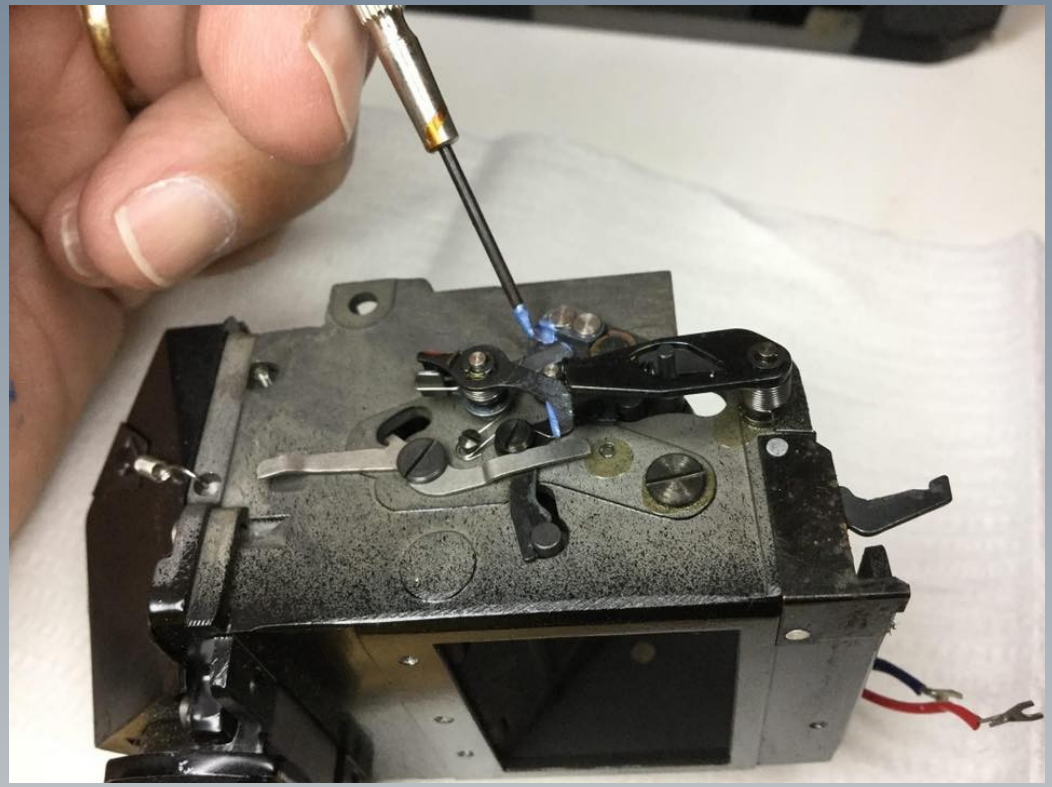

Release Plunger
Opening Curtain Wind Gear
Free to Turn in Clockwise Direction
Held Stationary by Film Wind Mech.
Clutch Cam
Opening Curtain Latch Disengaged by Mirror
Closing Curtain Latch
2

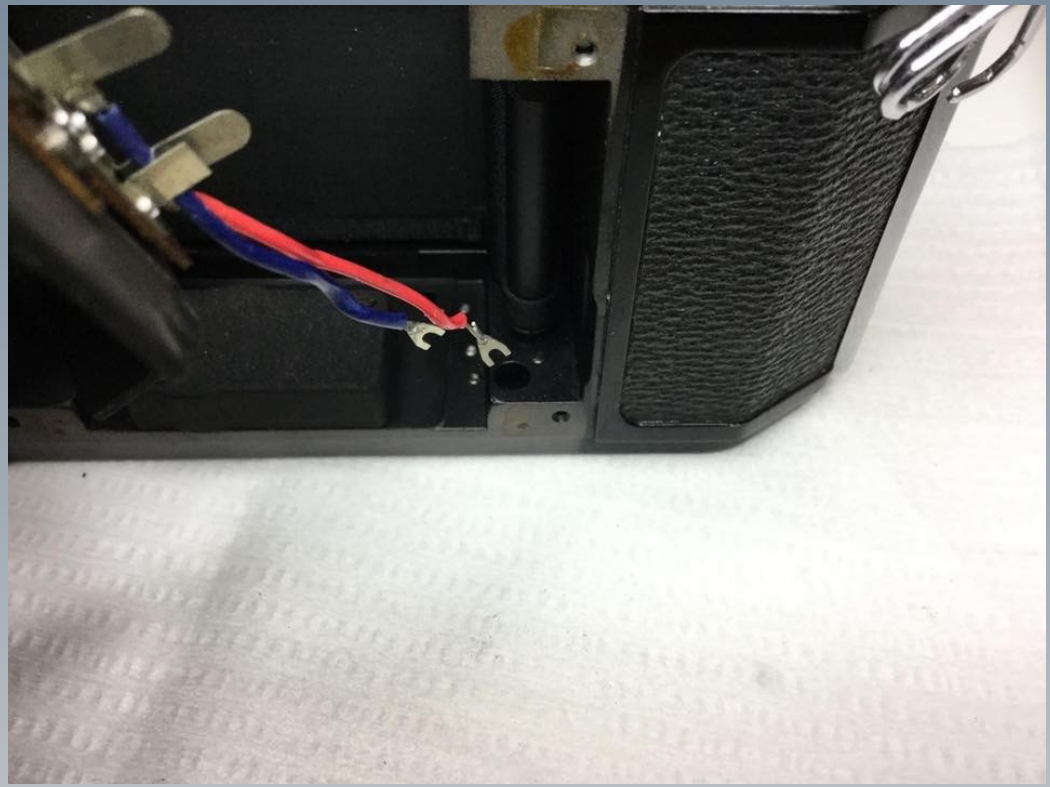

(Note: this sketch has been drawn out of proportion for clarity both curtains are actually the same size.)
Opening Curtain Wind Gear
Clutch Gear
Opening Curtain Take-Up Roller
Opening Curtain Winding Roller
Opening Curtain Latch
Main Wind Gear
Intermediate Gear Stack
Clutch Cam
Clutch Latch
Closing Curtain
Opening Curtain
Closing Curtain Take-Up Roller
Closing Curtain Wind Gear
Closing Curtain Winding Roller
Closing Curtain Control Gear
1

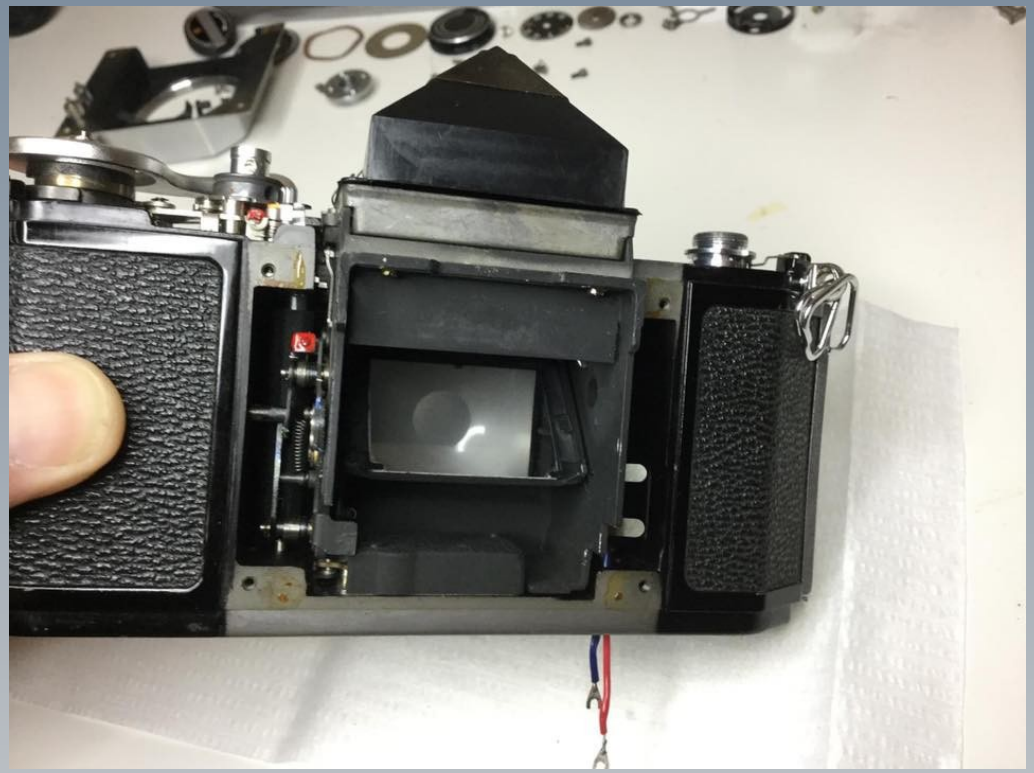

Upper Retard Lever
Retard Rod
Closing Curtain Winding Roller
Closing Curtain Control Gear
Clutch
Pallet
Lower Retard Lever Spring
Lower Retard Lever
First Gear Segment
Star Wheel
5

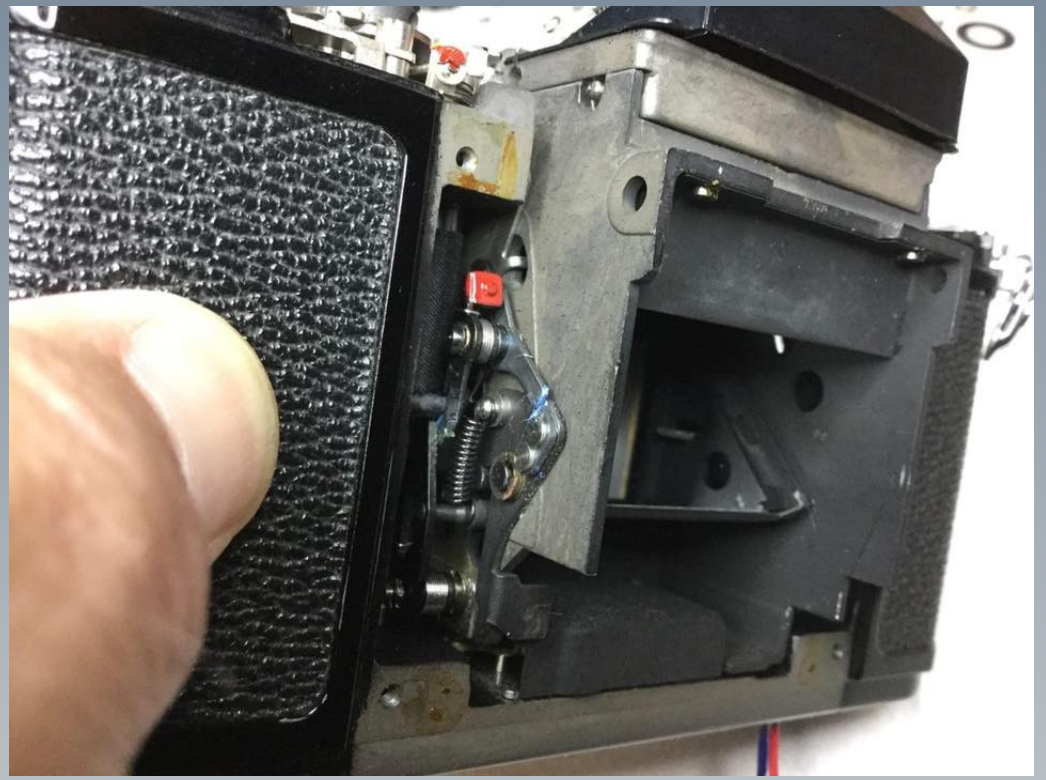
Post #20
https://www.facebook.com/groups/360490091319202/permalink/542146226486920/

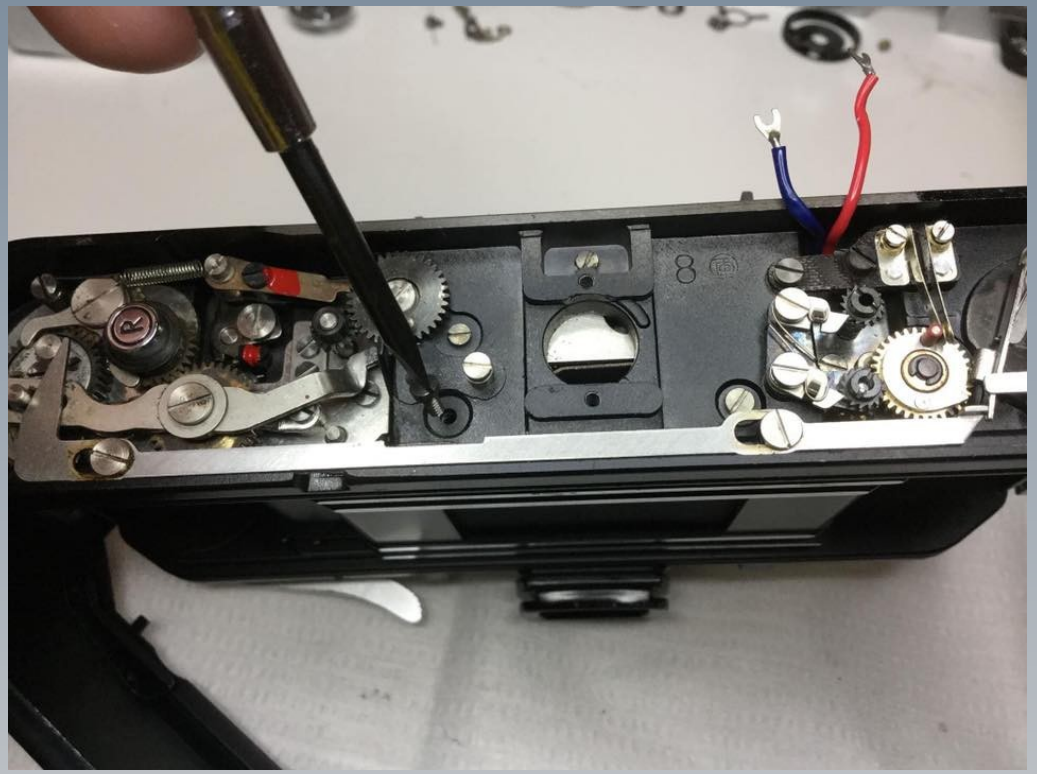
Sneak into the kitchen and eat some of your wife's Girl Scout Cookies she's been hiding in the cabinet behind some packages... Next oil the mirror levers with a single drop of oil on the lever posts. Mix a small amount of molybendum disulfide with shutter oil to make a grease and apply it to the mirror levers latching points as seen in the photo. Next re-install the mirror assembly, thread the sync wires through the hole in the camera body casting, install the upper mirror post screws and the two flat head screws from the bottom.





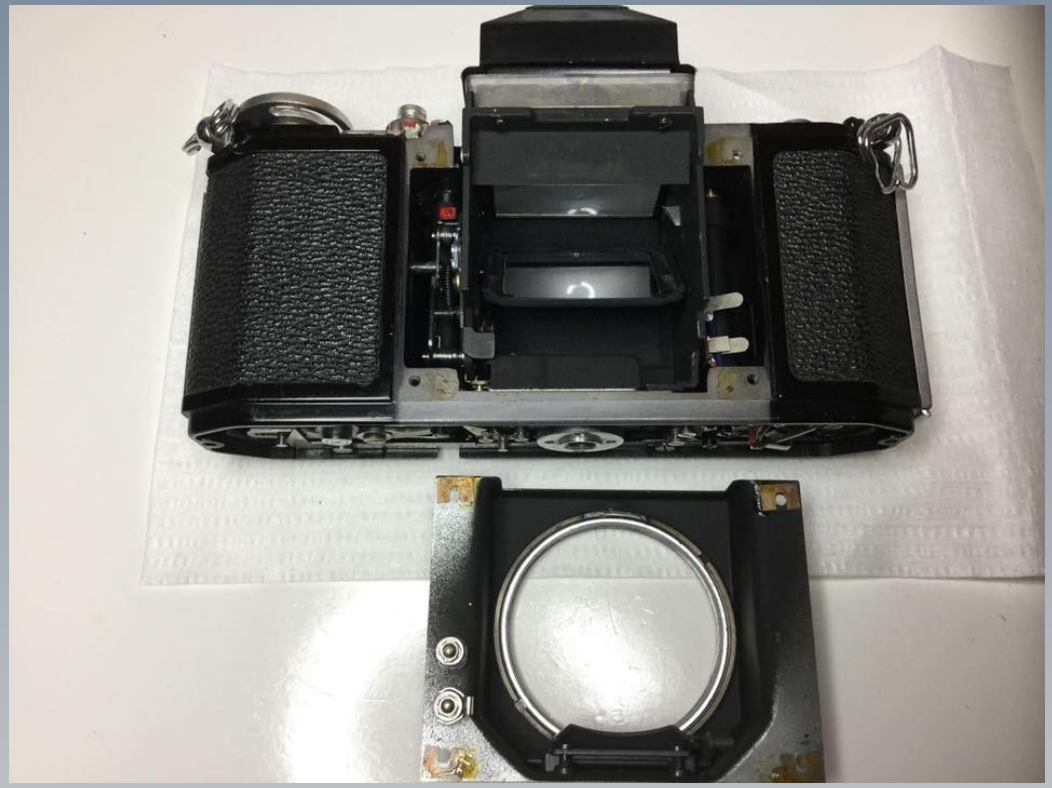






Post #21
https://www.facebook.com/groups/360490091319202/permalink/542148899819986/

It's time to install the front plate - don't forget to make sure the factory spacers are fixed in position. I sat the front plate on the body to show the right side is held up slightly, this is the result of the sync contacts pressing against the terminals in the front plate, the next photos show the mechanism at the bottom of the front plate, this is the lens aperture stop down assembly that pushes the small pin on the rear of the camera lens stopping the lens aperture down to the selected aperture when the shutter is released, hold the stop down assembly toward the front, set the front plate in place and install the screws.




FP
X


FP
X

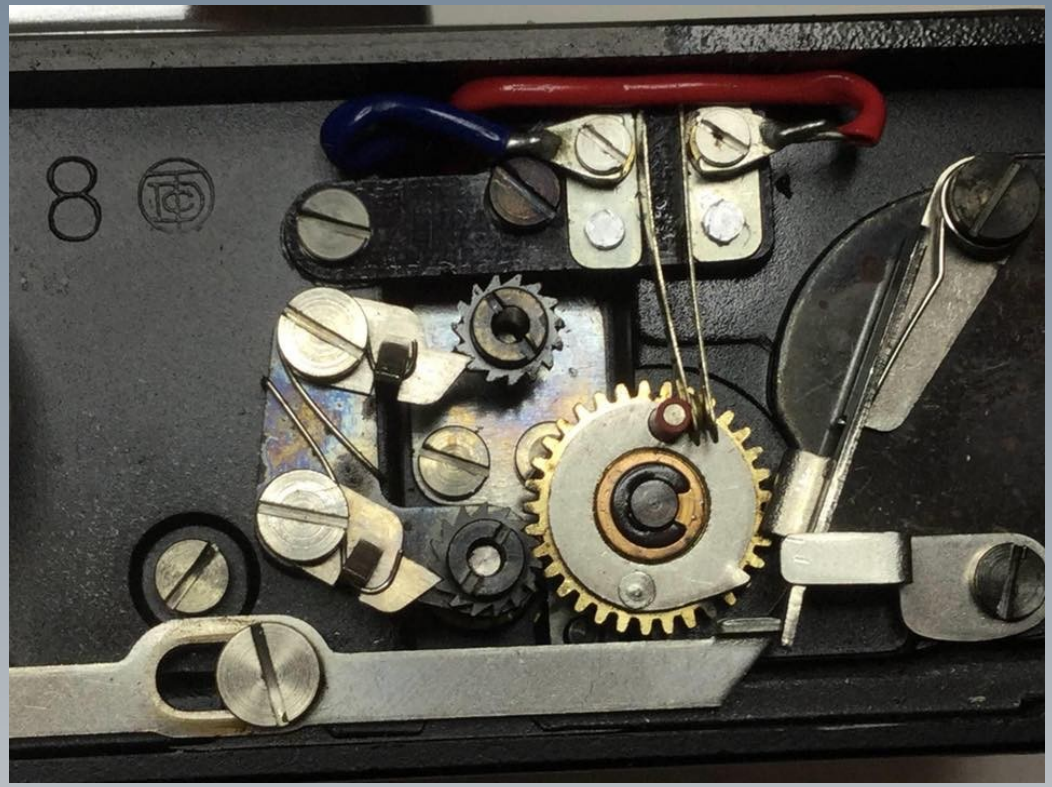

FP

Post #22
https://www.facebook.com/groups/360490091319202/permalink/542150206486522/

Install the shutter speed dial because it's time to adjust the shutter. If you have access to a shutter speed tester it's time to see where the shutter speeds are at...they look way off probably due to the curtain springs inside the rollers getting a little fatigued with age and use...NO PROBLEM, these springs are adjustable from the bottom - find the two one way gears on the bottom of the roller shafts and the spring loaded pawls that hold them at their adjusted positions. Fit the appropriate screwdriver blade into the slot and working back and forth between the opening and closing shutter curtains adjust the speeds of the curtains - you'll notice the shutter speeds start changing as you match the shutter curtain travel times as close as possible - under normal circumstances like this, adjust the slower curtain to match the faster curtain travel time, Pentax published a standard curtain travel time for every camera model but for horizontally travelling cloth shutters the range should be 13 to 15 milliseconds. This cameras top speed is 1/500 sec. (2.00 + - .25)... there is a high speed cam adjustment on the speed bridge if this speed doesn't adjust via shutter curtain travel times - this adjustment is difficult to make and hold because any slight movement while re-tightening it will change the high speed...if you need to use this high speed adjustment GET A MANUAL ... the location is in this next post as a last adjustment photo with red paint applied at the factory...you can see it's been disturbed in the past... it is good, it is tight, I'm going to leave it in this adjusted position.


B
T
1
2
4
8
15
30
60
125
250
500
1000


ZTS TESTER V
ERROR IN f-STOPS
1.
Ev - Av
TIME IN MILLISECONDS
SHUTTER SPEED
009.63
OPENING CURTAIN
15.68
CLOSING CURTAIN
21.85
ISO
100
200
400
800
ADJ
Av
CURTAIN TRAVEL
REVERSE
Exposure and Shutter Function Tester
ZTS LIGHT STANDARD
12.0
LIGHT VALUE
ROLLEIFLEX

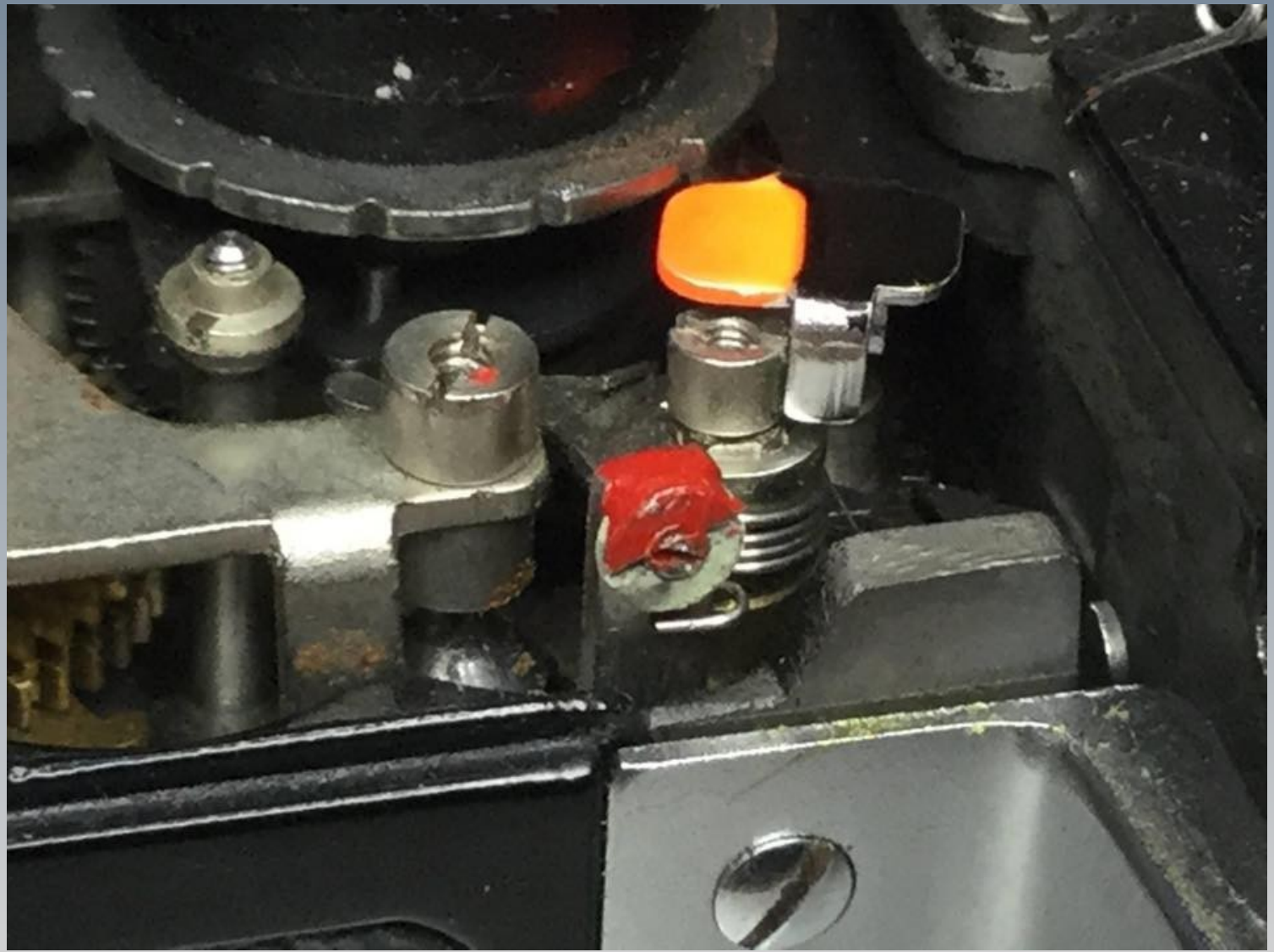



ZTS TESTER V
ERROR IN f-STOPS
2 4
Ev - Av
TIME IN MILLISECONDS
SHUTTER SPEED
0 0 2.2 5
OPENING CURTAIN
1 4.1 0
CLOSING CURTAIN
1 3.9 3
ISO
100 200 400 800
ADJ Av
CURTAIN TRAVEL
REVERSE
Exposure and Shutter Function Tester
ZTS LIGHT STANDARD
1 2.0
LIGHT VALUE


ZTS TESTER V
ERROR IN f-STOPS
2 0
Ev - Av
TIME IN MILLISECONDS
SHUTTER SPEED
0 0 2.1 8
OPENING CURTAIN
1 4.1 9
CLOSING CURTAIN
1 3.9 7
ISO
100 200 400 800
ADJ Av
CURTAIN TRAVEL
REVERSE
ZTS LIGHT STANDARD
1 2.1
LIGHT VALUE

Post #23
https://www.facebook.com/groups/360490091319202/permalink/542151173153092/

Shown here is the high speed adjustment point 1/500 sec), it's a locking collar with a small set screw in the center, it's difficult to adjust and hold because any slight movement while re-tightening the collar will change the speed, I don't like to disturb this adjustment unless I have to, you can see it's been disturbed in the past, I do not need to adjust it now at this point it's correctly adjusted and locked tight. The factory applies red paint to these critical adjustment points.



Post # 24
https://www.facebook.com/groups/360490091319202/permalink/542151946486348/

As previously stated reassembly is the reverse of disassembly...however now is the time to clean the last pieces and give one last look making sure everything is working properly. Clean the top cover with your favorite cleanser - something that doesn't contain solvents, you don't want to remove the paint the factory applied to the various components - a combination of soft cloth, Q Tips and a light brush work well, I even use a toothbrush lightly on small parts. Get the top cover in place carefully and install the single chrome plated screw on the wind end - A word of caution I failed to mention in previous posts - these small screws are easily damaged and broken, experience (stupid mistakes) have taught me to pay close attention when tightening and loosening these screws, if there is a glue holding the screw upon disassembly apply a solvent to soften it, when reassembly time comes around be gentle and learn to stop when the screw is firmly seated, screws prone to backing out over time usually have a spot of paint or a glue applied upon reassembly. There's no need to secure every screwhead with something, pay attention upon disassembly and you can spot these factory designated points.


PLIOBOND 25
BAR KEEPERS FRIEND
SINCE 1882
REMOVES RUST, LIME, STAINS & TARNISH
SOFT CLEANSER
COOKWARE
KITCHEN
BATHROOM


No.687672
S1a


ASAHI OPT. Co., Japan

Post #25
https://www.facebook.com/groups/360490091319202/permalink/542153046486238/

Install the winding lever- Inspect the film counter parts to make sure the springs are attached properly, reassemble the frame counter mechanism, you may need to open and close the film door to massage the spring loaded levers into place, install the spanner nut and take a second to look at verything you've installed and make sure they move with the upright lever protuding from underneath the mechanism - this lever moves with the opening and closing of the film door and serves to engage the frame counter. NOT SHOWN but a tricky part is the installation of the counter gear underneath the frame counter wheel with the numbers, the gear has a post on top that normally points at the rear and a post underneath, when you sit this gear in place it has to be tensioned - place the gear over the post with two flat sides and lifting it back up slightly so the post underneath clears its stop TURN the gear counterclockwise one turn and sit the gear back down - test it to make sure when you turn it the spring tension returns it to its rest position - this is the part that allows the frame counter to return to Zero "O" when you open the film door after shooting your roll of film. place the counter wheel with the numbers on it with "0" towards the front of the camera and tighten the screw (remember it's left handed - tightens counterclockwise). Turn the counter cover over for inspection and make sure the window hasn't come loose (common problem) if it's loose now is the time to re-glue it - if you have to do this do not get glue on the visable area of the window, the solvent in the glue with eat into the plastic. Align the counter cover dot with zero "0", with the film door open and tighten the three screws ... TEST IT! Close the film door, wind and fire the shutter watching the film counter wheel advance (no film needed), after you do this for a few frames open the film door, the counter wheel should return to zero"0".


ASAHI OPT. Co., Japan


ASAHI OPT. Co., Japan


ASAHI OPT. Co., Japan


ASAHI OPT. Co., Japan


35
30
5
10
15
2


0
5
10
15
20
25
30
35


0
5
10
15
20
25


ASAHI OPT. Co., Japan

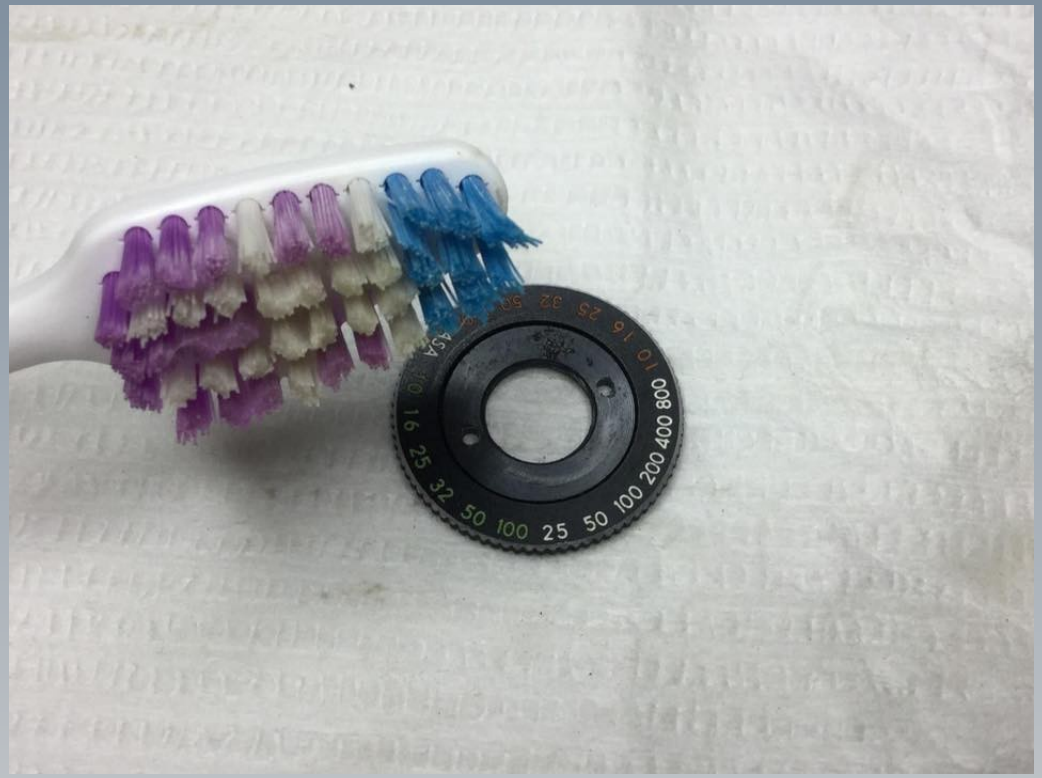
Post #26
https://www.facebook.com/groups/360490091319202/permalink/542154079819468/

Clean the reminder dial components and the dial...save an old toothbrush, put a little cleanser on it and the numbers will look like new, bright and easy to see, after you tighten the spanner nut makes sure the dial turn firmly but freely, hold the rewind fork with a pliers and tighten the rewind assembly - just snug it, it tightens in the same direction that the film is rewound (clockwise), when folks say the rewind knob came off it means they rewound the film in the wrong direction unscrewing the assembly...


No.687672
S1a


687672
S1a


ASA
10 16 25 32 50 100 25 50 100 200 400 800
10 16 25 32 50 100


10 16 25 32 50 100 25 50 100 200 400 800


32 50 100 25 50 100 200 400 800 10 16


25 50 100 200 400 800 10 16 25 32 50
S1a
No.6876772
FP


687672
S1a
R
ASA 10 16 25 32 50 100 25 50 100


687672
S1a
R
ASA 25 32 50 100 25 50 100

Post #27

https://www.facebook.com/groups/360490091319202/permalink/542154763152733/

Clean the outside and inside of the bottom cover, reinstall the screws and give a little attention to cleaning making a final inspection, test everything more than a once.

Post #28
https://www.facebook.com/groups/360490091319202/permalink/542155393152670/

I've got the camera back together and tested, the only thing that isn't perfect is the finder, there are a few small specks too stubborn to remove without taking a chance on damaging the screen, if a new screen were available I would take that chance. I like to clean the exterior and apply a little preservative to the leatherette. This camera is actually in darned good condition for it's age and the shutter speeds are dead on, a real workhorse camera that should give years of use!

Personal Notes - Remember when the first post appeared? the camera shutter/mirror were not functioning. I removed the bottom cover and immediately found the problem, less than two minutes into the inspection process I found a clump of debis and a film chip caught in the shutter/mirror release gear set causing the problem - I pulled the debris out of the gear teeth and the camera once again was working, the film wound, the shutter/mirror worked properly - some might think...Well that's done! But time had taken it's toll and although the camera appeared to be working properly the shutter higher speeds were way off, the second shutter curtain was slow giving an uneven exposure (dark on one side and lighter on the other) - without a shutter speed tester there would be very little chance of detecting that unless you're really good at analyzing your negatives, positive films (slide film) would show the issue prominantly - in short your photographs would disappoint you and make your darkroom work all that much harder. As you can see I like to go the extra mile when I work, ideally I would like the camera to look as if it hadn't been worked on since it left the factory and when it leaves my workbench I want to feel really good about what I've done with it, I repair cameras and lenses as if I would be using them, you should too, it slows the work down a bit but consider this, no one is perfect, mistakes are made, things overlooked - when I had a commercial storefront taking in cameras for repair, I averaged around 1300 camera and lens repairs a year, most years I would get a half dozen customers returning their cameras to me with problems, half of those were usually damaged by the customers such as impact, the other three were repairs I re-did at no charge, of the three damaged cameras I had a policy, if the customer stated they dropped it, I repaired as cheaply as possible because I'd already cleaned it, replaced the bad parts and lubricated the mechanisms. So...yep, I'm slow, I could do it faster and make more money, move on to the next camera...I would rather run into a customer on the street or in a restaurant and have a good friend to talk to about their wonderful photography...


ASAHI
PENTAX


No.687672
S1a
ASAHI OPT. Co., Japan