

Hi my name is John. I will try to outline the process of rebuilding this lens. Please be advised that if you decide to do this it is completely at your own risk. Step 1 you need jis screw drivers lens spanners friction wrenches alcohol lens tissue a camera for taking pictures and lots of patience. I also use 10x jewelers glasses. One note never use a lot of force if you are then you are doing something wrong stop and think about it. On the grub screws on the aperture ring using q-tip drizzle alcohol on and wait 3 min repeat this 5 time before trying to loosen these flea size grub screw, if not you project will stop right here. Also usually mek works not on this lens only alcohol. Ok 1 using a strap wrench or a stront hand grip you will see a very narrow band near the top of the lens turn it out and place it somewhere safe.If you can't turn it drizzle some alcohol on it and try again. Also while you are at it remove the rear optics as well, so as to keep her safe.Now back to the to look insde the lens barrel you will see a grub screw ,loosen it but dont remove it.Now turn out the lens barrel.Next set you focus to infinity and mark off lots of spots for reference.Now remove it. Next remove the focus stop screw.Now if you want to chicken out and clean only the out helical and regrease from here it wouldnt blame you, also if you dont need to clean your optics dont,as this is no easy task.And is harder then completely rebuilding this lens trust me on this.OK next providing someone didnt booger the grub screw loosen the screw that lock down the aperture retaing ring.Now loosen the aperture retaining ring turning clockwise,yes clock wise. Left handed threads on this baby. Next set the aperutre to f-22 and set focus to infinity and now carefully remove it together with the remainig lens groups.You are doing great, now the hardest part of the job.So put extra care on this ,on those pesky grubs screw on the aperture ring use lots of alcohol and heat if needed and carefully loosen these, but dont remove because it is a pita pain in the arse. Ok just slide it up and snug it back you can leave it there for now.Next up mark off lots of ininity marks, cant make enuff of these. So now you will see three screws around the case remove them, and carefully split it open, mark some spots so as to remember how it goes back. Now remove the aperture ring and place it in a same spot again mark off infinity. OK this next part is very important so read this a few times ,ifact read this whole this a few times. You may see where someone marked of infinity on the primary helical, in not you need to mark it ON THE BRASS, the black but also on the black .OK ONE QUICK NOTE ,the secondary helical will come out though the bottom . So here we go on the side of the helical barrrel on bothside you will see two sets of screws this hold it hte hilical guides remove one at a time and make sure to remember how and where they go use your camera. OK assuming you havn't had a heart attack yet, turn out the primary helical together with the secondary yes i mean together after you will separate the NOT NOW . OK hope you read the last part other wise you are Not giong to be able to put it back together. Now separate the two helicals and as the disconnect mark off on both helicals where the separate.IF YOU DO NOT DO THIS, you will never achieve INFINI FOCUS NEVER. Reason there is no focus colloar adjustment SO PUT ATTENTION.Now clean up with zippo lighter fluid , my choice of cleaning products. You could use brake cleang fluid also. NOW using Helical grease of your choice ,or good old fashion grease if you like a stiff focus dampening. OK NEXT is mate the primary and the secondary using those marks you made and put the together. Next you will see the stop screw whole and you infiniti marks line it up and turn it in all

the way till it stops and turn it ack a little and you will see wher that lines up with the stop. Good with me so far, next rotate from that point 180 degrees, and turn it the secondary coil so that it cand go in any more, drop in one of the helical guides. THEN repeat for the other side . OK HARDEST PART IS OVER.Now assemble the case but before you do put on the aperture ring, slide it on and dont tighten yet once you have assemble the case put it in the right spot and dont superman the grub screws. Next up set it to f-22 and slide the aperture trigger ov to infinity and set to infinity ,drop in the aperture. Next turn in the retaing ring counter clockwise, make sure everything works tighten reasonable force and tighten grebs, dont superman them,aybe the next guy will be able to rebuild it if you dont booger them. Ok the rest is easy GOOD LUCK .