Here's The fix For Your SLT Mount

.....and again, warranty likely voided since it involves taking the mount apart.

1. unplug and remove the telescope from the mount.

2. remove the mount from the tripod using the hand tool/screw located under the mount.

3. place the mount on it's side. You should see a metal piece held in place by two screws.

4. remove these two screws.

5. beneath the metal piece that was held in place by the two screws you will see a nut. Remove the nut using a ratchet or whatever else can reach inside the mount base housing.

6. after removing the nut you will see a lock washer and flat washer. Make sure they go back on later in the same order.....when replacing - 1st = flat washer, 2nd = lock washer, last = nut

7. remove the base housing. On the under side of the base housing you will see a large metal gear held in place by two small screws.

8. remove these screws and release the large gear. At this point you will also see the small drive gear located on the underside of the mount that drives the large gear.

9. plug the mount and hand controller in and test the small gear by pressing the left and right arrows. If the small gear moves instantly or near so, read further. If not, something else is wrong and this fix likely won't help.

10. Just to test, take the large gear that you removed from the mount base and place down over the middle swivel so that it interlocks with the small gear. The middle swivel will have a center that is flat on one side and rounded on the other. Be careful not to force the gears to interlock as this could damage them. Once interlocked, press the left and right buttons on the hand controller so make sure movement is occurring instantly or near so. If not, see step 9. If so, read further.

11. Now that you can see the gears moving as soon as you press the buttons, it should become obvious that the backlash problem is rooted in the way the mount is put together. Here's how to fix that....

12. place the large gear back on to the base and replace he two screws that held it in place. Make sure these two small screws are TIGHT.....obviously you shouldn't strip them but any looseness will cause slippage which will result in delay of movement.

13. Now comes the tricky part.....you must line up the now attached large gear/base housing with the small drive gear located on the mount base. I found the easiest way of doing this is to rotate the middle swivel (with the one flat side), press the large gear housing/base down on to it and gently rock back and forth until there is a fit. This may take several tries and you may have to slightly rotate the middle swivel several times before you can get it to lock in place. If the gears aren't interlocked, you will know it as the large gear/base assembly will rock back and forth. You just have to keep trying and be gentle so as not to damage the gear teeth.

14. Once you have gotten the large gear/base housing assembly seated onto the small drive gear you will now replace the washer first, lock washer second, and nut last.
15. While it may seem that you should tighten the nut as much as possible, DO NOT OVER TIGHTEN. This will result in the screw heads of the two screws holding the large gear in place scrubbing the underside of the base housing and causing a long delay in movement. I confirmed this when I over tightened the nut and found there to be a delay. Once I removed the assembly again, I found that the screw heads had gouged out scratches in the black paint of the base. So, only tighten the nut to a moderate degree.....this make take a few trials to find the sweet spot. This portion is critical.

15. While this should have been mentioned earlier, when you have he base disassembled, you should see a greasy lubricant between the large gear/base housing and the main portion of the base containing the small drive gear. You may wish to apply some more lubricant if you feel there isn't enough but I'll leave that to you to make that decision.

16. You're all set....once the base is reassembled, reattach to the tripod, reattach the scope, and test it out.

17. If it turns out like mine, this fixed my slewing/alignment/tracking problems. As stated before, proper setup, backlash setting, leveling, etc. are also important but I found this fix to be the most effective and unfortunately took me several years to figure out even though it's quite simple,

Anyway, I hope this helps someone. I'd be glad to provide more details or pictures if you'd like. Just be careful and patient. I will have to say though, it's like having a new scope again.