

PEC TRAINING A MEADE LX200

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I take no credit for this method of Polar Alignment – I have tried a few and this is simply a combination of the best descriptions that I have found with some additional photos and extra explanation.

Also see my notes on Polar Alignment as you need to combine both to obtain maximum benefit.

1. An illuminated guiding eyepiece (see Fig.1 over page) is a must for this so that you can accurately track a selected guide star. One in which you can move the cross-hairs is a bonus.
2. Ideally you need to aim for at least 200x magnification with your guiding eyepiece. For a 10" F10 scope this means about a 12mm eyepiece. The magnification = focal length of your scope / focal length of your eyepiece, so a 10" F10 scope equals a focal length of 100" (10 x 10) which is about 2500mm. Therefore $2500/12 = 208$ magnification.
3. Prepare to guide by finding a reasonably bright star and then navigate to the SMART option in the hand controller (you will find this under TELESCOPE/OBJECT LIBRARY -> TELESCOPE).
4. Upon selecting SMART you will get the options LEARN, UPDATE, ERASE, DEC LEARN, DEC CORRECT.
5. Now centre the star on your cross-hairs and align the cross hairs so that any RA or Declination movement causes the star to follow the cross-hair in a parallel fashion. I find it easier to nestle a star right on the edge of the cross-hair as shown below (see Figs. 2 and 3 over page)
6. Select LEARN.
7. The hand controller will now show you a number between 0 and 240 that will gradually count down to 0. Start guiding well before it reaches 0 so that you are in the swing of it when it starts for real - when it reaches 5 you will get a beep to let you know that the scope is about to record your correction movements.
8. Your scope will now record all RA (East / West) corrections for 8 minutes and beep again when its done. Keep the star as steady as possible.
9. If you have already Polar Aligned (see my Polar align notes) then you will hopefully not have to make any declination (North / South) movements. If you have aligned your star as suggested then Dec movements are not necessary and they are a distraction as the **PEC training only records RA corrections.**



Fig. 1 – An illuminated Guiding Eyepiece (9mm) with cross-hair adjustment

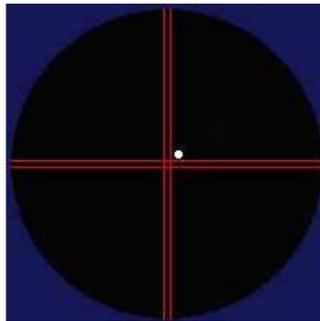


Fig. 2 – Align a Star: I like to have it just nestling on the outside of the cross-hairs

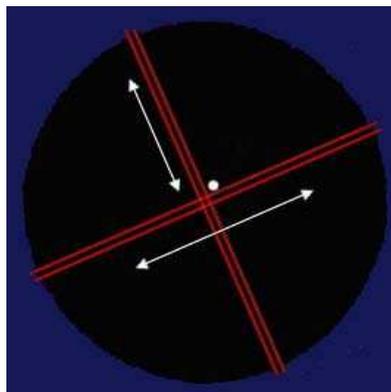


Fig. 3 – You may find correction easier if you rotate the eyepiece so that any RA (or Dec) movement causes the star to follow the cross-hairs