

# APM collimation guide for 80mm, 100mm and 110mm MS-Series Binoculars



**APM**  
TELESCOPES

## 1) Preparation before adjustment

Loosen the lightly glued on rubber covers on both sides as shown in the picture. Don't worry, they won't break



## 2) Adjustment

The adjusting screws are covered by a soft silicone, which you should first remove with a small screwdriver or knife. Then take a pointed object, e.g. a needle and pull out the solid black rubber stoppers



## 2) Adjustment

### Adjustment during Daytime:

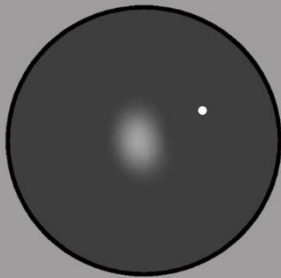
Place the binoculars on a stable tripod, set your eye relief precisely, aim for an object that is as far away as possible (several hundred meters if possible). It should have sharp edges and ideally even a reflection from the sun (like a star). To check vertical collimation, slowly move your eyes away from the eyepieces about 10cm without losing sight of the object. Now look at the image on the eyepieces. If the binocular is misaligned, this is now clearly recognizable.



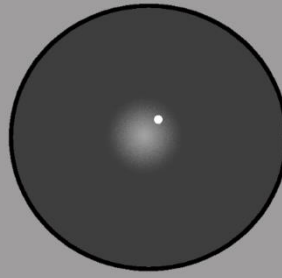
## 2) Adjustment

### Adjusting in the night sky:

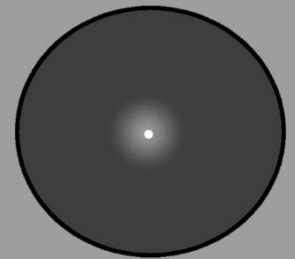
Also place the binoculars on a stable tripod and set your interpupillary distance precisely. Look for a bright star such as Polaris, as it does not move so in order to prohibit uncomfortable viewing. Stand or sit behind the binoculars in a comfortable position with a very pleasant view. Looking in tired or from a wrong angle falsifies the result.



Bad



Usable



Good

## 2) Adjustment

Start the adjustment with a suitable screwdriver on the brass screws that are now visible. Start with one side with the external screw, the one farther away from the eyepiece. It is often sufficient to turn a screw slightly. If this is not enough, use the external screw on the other tube. With this method you will be successful in 99% of all cases. If this does not lead to a successful result either, use the inner screws.

When adjusting and looking through the binoculars, please consider the fact that your eyes accumulate very quickly. It is best to look over the binoculars from time to time in order to relax your eyes. If you think everything fits now, move your eyes about 3 to 4cm away from the binocular eyepiece. This increases the detectability of an adjustment or misalignment considerably, since your eyes hardly accumulate.



## 4) After successful adjustment you now have several options:

- 1) Either you simply fold down the rubber covers and you are done. You can, but you do not have to apply glue on the inside of the rubber covers
- 2) Or you put the rubber plugs back in and seal the hole with some silicone, thus restoring the water tightness. But you only need this for permanent wet use, e.g. on a ship or in a rain forest. Then simply fold down the rubber covers, glue them and you are done.

