

THE AWR SEEKER - MANUAL

www.awr.tech.dial.pipex.com/seeker.htm

The SEEKER is available in two versions the SS2K version is for Vixen SkySensor 2000 and the STANDARD version for all other handsets. They differ only in the pinouts and usage of both versions is identical. Autoguiders operate normally when connected through the SEEKER.

CONNECTION

Put in the PP3 battery. Connect one of the autoguider sockets of the SEEKER to your drive system with the RJ12 cable and if you are using a CCD autoguider plug it into the other socket. Turn on with the MODE button.

BUTTONS

- MODE** Press for ON, long press for OFF
- MODE** Alternate between PROG and DRIVE
- PROG** Press and hold to drive telescope in DEC to get segment length programmed.
- DRIVE** Press to operate next segment. Continue in Spiral. Restart spiral by going to PROG then back to DRIVE.

USE FINDING OBJECTS

Programme the segment length to be about $2/3^{\text{rd}}$ the field of view on the short axis. For convenience set the drive speed so that the segment takes between 5 and 10 seconds to complete. The LED flashes twice per second and can be used for timing; however the simplest way of programming is to use real time viewfinding if you can (as with a webcam). If the drive speed is 2x or less then the RA motor will not run backwards so minimizing problems due to RA backlash. Consecutive fields will overlap. After each segment check to see if you have acquired the object. The spiral continues as shown in the table

| | | | | | | |
|----|----|----|----|----|----|----|
| 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| 29 | 12 | 13 | 14 | 15 | 16 | 37 |
| 28 | 11 | 2 | 3 | 4 | 17 | 38 |
| 27 | 10 | 1 | 0 | 5 | 18 | 39 |
| 26 | 9 | 8 | 7 | 6 | 19 | 40 |
| 25 | 24 | 23 | 22 | 21 | 20 | 41 |
| . | . | 46 | 45 | 44 | 43 | 42 |

USE PANORAMA MOSAIC

Programme the segment length in the normal way and just keep going with the segments. Example on the web page.

USE DRIVE ERRORS

Set up for doing standard mosaics but the drive speed must be set for more than 2x sidereal to show RA backlash. Adjust the effective focal length to between 2 and 5 metres by projection with a Barlow or other eyepiece to get an appropriate image scale to display the defects. Use a camera that can do extended time exposures. You must take one photo for the whole SEEKER spiral. The segment length should be of the order of 2 arc minutes then three complete spirals will occupy 14 arc minutes which should fit comfortably in your film negative. Select a bright star (2^{nd} mag or brighter) and centre in the camera before exposing. Start the exposure and move onto the next segment after two to five seconds of no movement. Repeat. Then you will get dots at each mosaic point and trails whilst it is moving between points. For analysis see the web page.

SPECIFICATION

| | |
|-------------------|--------------------------------|
| Operation | 50 hours from a PP3 |
| Battery | PP3 type, alkaline recommended |
| Temperature range | -20 to +50 deg C |
| Auto-shutoff | 54 minutes |
| Sockets | 2 x 6 pin RJ12 |
| Lamp flash rate | 0.25s on, 0.25s off |
| CE marked | |

Units are guaranteed for 1 year from purchase against defective materials and assembly.

In any query contact

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