

SBIG REMOTE GUIDE HEAD INSTALLATION INSTRUCTIONS



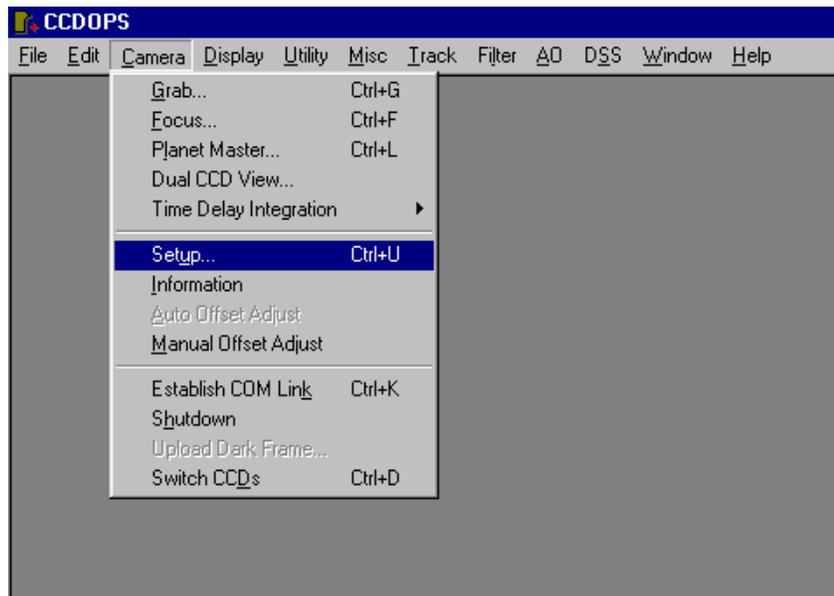
The **Remote Guide Head** is an optional accessory for the STL and newer ST series cameras that allows the convenience of self-guiding with the guider external to the camera and filter wheel if necessary. The same Remote Guide Head will work with any STL or ST model camera equipped with a Remote Guide Head port. The Remote Guide Head contains a cooled TC-237H guiding CCD with 657 x 495 pixels at 7.4 microns and uses a 16-bit A/D. This is the same guiding CCD that is built into STL and ST self-guiding cameras. It draws its power from the main camera and is controlled by the

same software that controls the internal guider. When the Remote Guide head is attached to the camera, you can use your camera control software to select either the built-in ("internal") tracking CCD or the Remote Head ("external") CCD for self-guiding during long exposures. It has its own shutter for dark frames.

CAUTION: DO NOT CONNECT OR DISCONNECT THE REMOTE GUIDE HEAD WHILE THE POWER IS ON TO THE MAIN CAMERA. ONLY CONNECT OR DISCONNECT THE REMOTE GUIDE HEAD WITH THE POWER OFF.

Using the remote guiding head with ST and STL cameras is very straightforward. For dual sensor cameras simply plug the head into the camera's remote head port with the supplied cable and then select the "external" tracking CCD in the CCDOPS Setup menu when you wish to use the remote head instead of the internal guiding CCD.

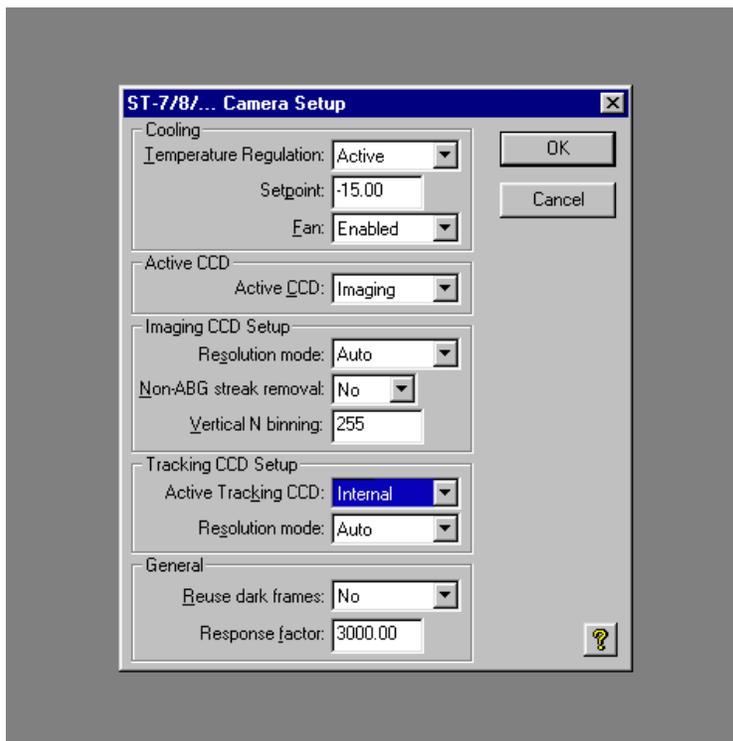
Make sure you have downloaded the latest version of CCDOPS from our web site and that you have updated the drivers using the Driver Checker program.



Then, after you have established a link with the camera using CCDOPS, you can select the remote guiding head in the Camera Setup Menu. Go to the "Camera" menu and click on the "Setup" item.

You will get a pop up dialog box that looks similar to the screen shot below. In the "Tracking CCD Setup" section, the "Active Tracking CCD" may be selected as either "Internal" or "External" from the drop down menu. "Internal" means the tracking CCD that is built into the camera, and "External" means the tracking CCD in the Remote Guide Head.

After making this selection, other commands that apply to the tracking CCD will automatically apply to the one you have chosen. For example, if you select "External" as the active tracking CCD and then go back to the Camera menu and select "Switch CCDs," the External tracking CCD will be used as the imaging CCD. Likewise, if you select the "External" tracking CCD and then go to Dual CCD View in the Camera menu, the view from the tracking CCD will be the Remote Guide Head. If you have already calibrated the internal guider, however, you will have to re-calibrate the Remote Guide Head. The same calibration factors cannot be used for both the internal and external guider.



The Remote Guide Head can be used in a variety of configurations just as any other CCD autoguider. It can be used with a separate guide scope using the supplied 1.25" nosepiece, or it can be used with optional camera lens adapters or an optional off-axis guider such as the Astrodon MOAG seen at left. The benefit of the latter configuration is that it can also control the AO-L or AO-8 adaptive optics accessories because it will be looking through the same optical system as the imaging CCD. The backfocus distance is compatible with the

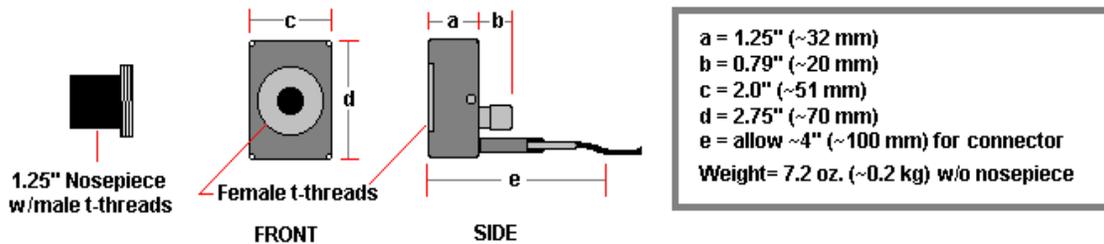
eFinder, C-mount lenses, and the CLA-5 camera lens adapter for Nikon and Canon FD lenses.



The Remote Head port is labeled on STL cameras (left). The port is not labeled on ST cameras (right) but there is only one miniature connector that matches the plug on the Remote Head cable so there is no chance of incorrectly attaching the head cable. All Remote Guide Heads now have a black finish and a desiccant plug in the back that can be removed without tools. If the CCD should exhibit signs of frost, unscrew the desiccant plug, remove the small o-ring and bake the plug in a conventional oven for about 4 hours at 350 – 400 degrees Fahrenheit (200 degrees C).

Once it is attached to the camera, to select the Remote Guide Head using CCDOPS, go to Camera -> Setup -> Tracking CCD and then select "External." Please refer to your particular camera control software documentation for selecting the Remote Head using other software. The TE cooling of the CCD in the Remote Head is automatic and is enabled at 100% whenever the cooling to the imaging CCD in the main camera is enabled, regardless of the software you are using.

REMOTE GUIDE HEAD PHYSICAL DIMENSIONS



The threaded holes in the sides of body of the Remote Guide Head are standard tripod threads (1/4-20) for mounting the Remote Head on a piggy-back bracket.

Back focus = 0.69"

