

Finding Lost Telescope Position

So you lost your telescope... It happens to the best of us. Below is a procedure to reacquire celestial position in the event (due to power lose or Sarah Lemmon shenanigan's) the telescope has completely lost its position.

Rediscover Home

The procedure only requires a couple minutes of time. The Home position is quite precise and thus should be more than enough to get a star in 32" field even during the day.

Turn Off the Controller

I know. It sounds weird but hear me out. The telescope doesn't know where it is and the drivers are engaged making it impossible to move by hand.

Turn the Controller off via the big red switch. When you do this Maestro, on the desktop computer, will be unhappy. That's ok. It will automatically reconnect once the Controller is turned back on.

Point to Park

By hand, move the telescope so it is roughly in the Park position. There are indicators for both axis that are close enough and are described in the [Startup Procedure](#).

Turn On the Controller

Flip the big red switch on the control box again to turn on the Controller.

Align from Last

In the Settings tab, under the Alignment section, click the Align from Last button. This will NOT actually align it to a correct or even close position. It will however allow us to do the next step as the TCS does not allow calibration unless it is already aligned (no matter how incorrectly aligned it is).

Calibrate to Alt/AZ

The telescope now thinks it knows where it is because we Aligned from Last but really it has no idea still. We do know however because we pointed it roughly at park.

With the Telescope still at the Park position go to the Settings tab, then Calibration and select the Use Az/Alt radio button. Below this you will input the position as follows:

Az: 180:00:00

Alt: 25:00:00

You must write them in this format otherwise Maestro won't accept it.

Once these values are inputted click the From Az/Alt.

NOTE: If you do not see that button and instead have a From RA/Dec button it's because you didn't click the Use Az/Alt radio button instructed before.

Align from Home Seek

Now that it is calibrated and thinks it is pointing at Park when can align it on the Home Position. Click the Align from Home Seek under the Alignment section. The telescope will move quickly to a "anchor" point and then continue moving in that direction until it hits the home switches. You will hear an audio cue from each axis noting that it reached home. From this point you can point to your intended target and get back to observing. The pointing should be quite good now. If it is still slightly off you can use your favorite method to calibrate/sync on an object.

Calibrate on Bright Star

It is also possible to realign the telescope via a bright star in the sky. This won't be as accurate as doing a "Home Seek" but should be faster if you are already on the sky and simple lost positioning for whatever reason.

Align from Last

In the Alignment section of the Settings tab look at the Status. It should either say Completed OR Not Aligned.

image of both options

If it says Completed then you can just proceed to the next step. If it is alignment you will be unable to calibrate

Find a Bright Star

Now you must decide which star to use. Obviously a star you know and can point relatively quickly would be best but it must also be a star within the Maestro software. Take a look at the available stars in the drop down list in Settings→Calibrate→From Bright Star or search for your star [from](#)

[this list of available stars.](#)

Position Star on Main Camera or in the Eyepiece

Calibrate - From Bright Star

On the Settings tab of Maestro3 locate the Calibration section then the From Bright Star.

insert image of the above step

There is a drop down below the button. Select the star you have pointing the telescope at and simple hit the From Bright Star button. There will be a

Troubleshooting

If the above procedure does NOT fix your issue there is something else going on. Check the RA tape for bugs, make sure the telescope is well balanced, note any errors in Maestro. If you can't find a solution contact Travis.

From:
<https://lavinia.as.arizona.edu/~tscopewiki/> - MOON

Permanent link:
https://lavinia.as.arizona.edu/~tscopewiki/doku.php?id=public:catalinas:lemmon:schulman_32:finding_lost_telescope_position&rev=1692123627

Last update: 2023/08/15 11:20

