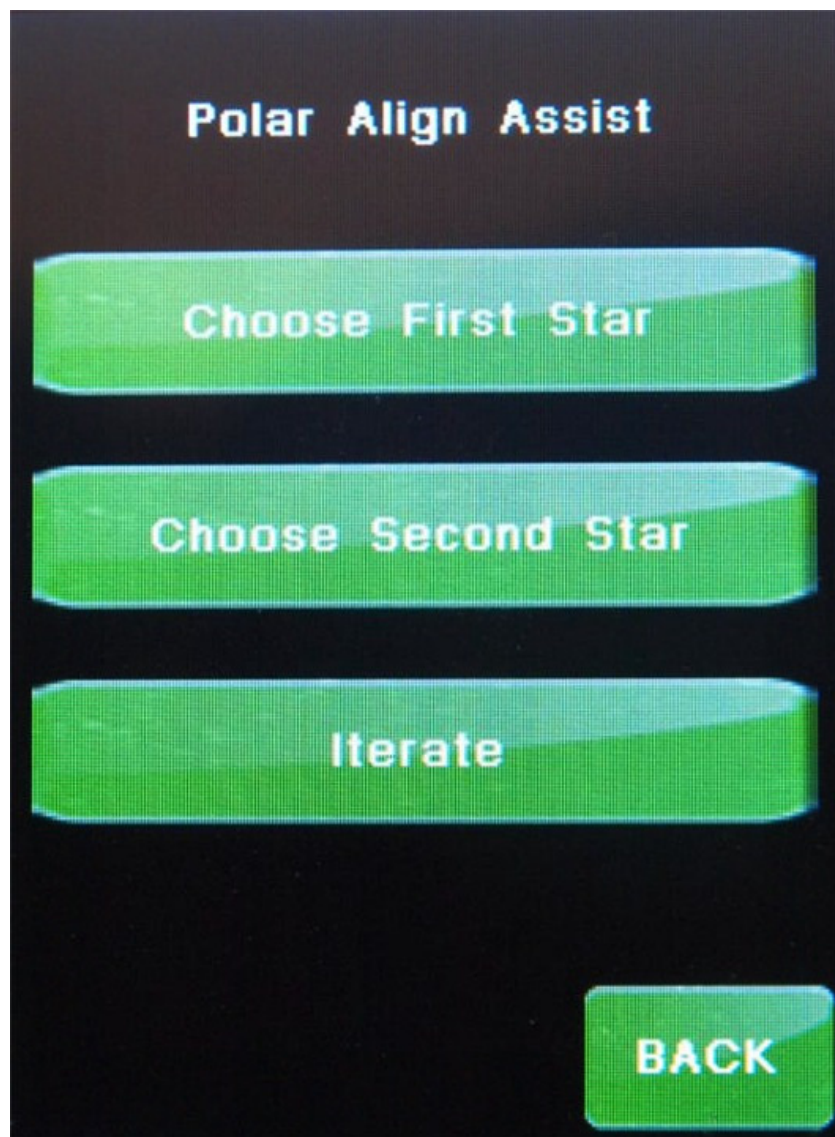


Interactive Hand-Controller Menus - click on green button to navigate



This routine is designed to help get the mount polar aligned to within one degree of either the north or south pole. This routine will take at least 3 iterations to get as close as a polar scope can get you. YOU CANNOT HAVE A MODEL BUILT AND EXPECT THIS ROUTINE TO WORK. Do it after doing a cold start.

1. It is very important that you do as accurate a Counter-Weight-Down, and Pointing the Dec to the pole as you can before powering on the Gemini-2. This will help this alignment be more accurate.

2. After you have cold started select "Menu"--> "Align -->more.. -->Polar Align Assist" menu item.

3. You will be in the menu of Choose First Star, Choose Second star and Iterate.

4. You will need to select 2 stars for this alignment process. The first one should be near the celestial equator (Dec. near 0) and within about 20° of the eastern or western horizon (about + or - six hours east or west). The other star should be near the meridian (such as Polaris in the northern hemisphere).

5. Use the UP and Down buttons to

scroll through the list of stars and select the first one by using the selecting it. Once again the Gemini-2 will display the Choose first star, Choose Second Star, and Iterate.

6. Choose the second star and select a star from the menu of stars. Scroll through the list and select the second star. The menu will again return to the Choose First Star, Choose Second star and Iterate menu.
7. Select the Iterate button and the the mount will slew to the first star. Once it reaches the star, "center object" will appear on the display. If the star is the one near the meridian, center the star only using the mount's elevation adjustment knob (ignore azimuth). If it is in the western or eastern part of the sky, center the star using only the mount's azimuth adjustment knob (ignore elevation).
8. Press the Iterate button and the telescope will slew to the other star. Center it using the procedure described above. Repeat this about 3 times, each time pressing the Iterate button to slew back and forth between the two stars. When you are finished, press the Back button.
9. You can expect to get to within one degree of the pole using this method. IMPORTANT: Because this method depends on the mount pointing to where the stars should be if the mount were polar aligned, you cannot use this function if modeling parameters have already been calculated. You

should only use it after a Cold Start before you do any Alignments, or immediately after selecting the "Reset Alignment" menu item.

10. Lets get started, Hit Choose First Star.

**Interactive Hand-Controller Menus - click on green button to
navigate**



The first one should be near the celestial equator (Dec. near 0) and within about 20° of the eastern or western horizon (about + or - six hours east or west).

I don't see one I like for this demo so hit the down button and lets look futhur

looking for first star

**Interactive Hand-Controller Menus - click on green button to
navigate**

-6	Dubhe α UMa	23
+2	Hamal α ARI	61
+5	Markab α PEG	19
+1	Mekab α CET	56
+3	Mirak β AND	53
+1	Mirfak α PER	71
+2	Polaris α UMi	34
-3	Pollux β GEM	43

DOWN

UP

BACK

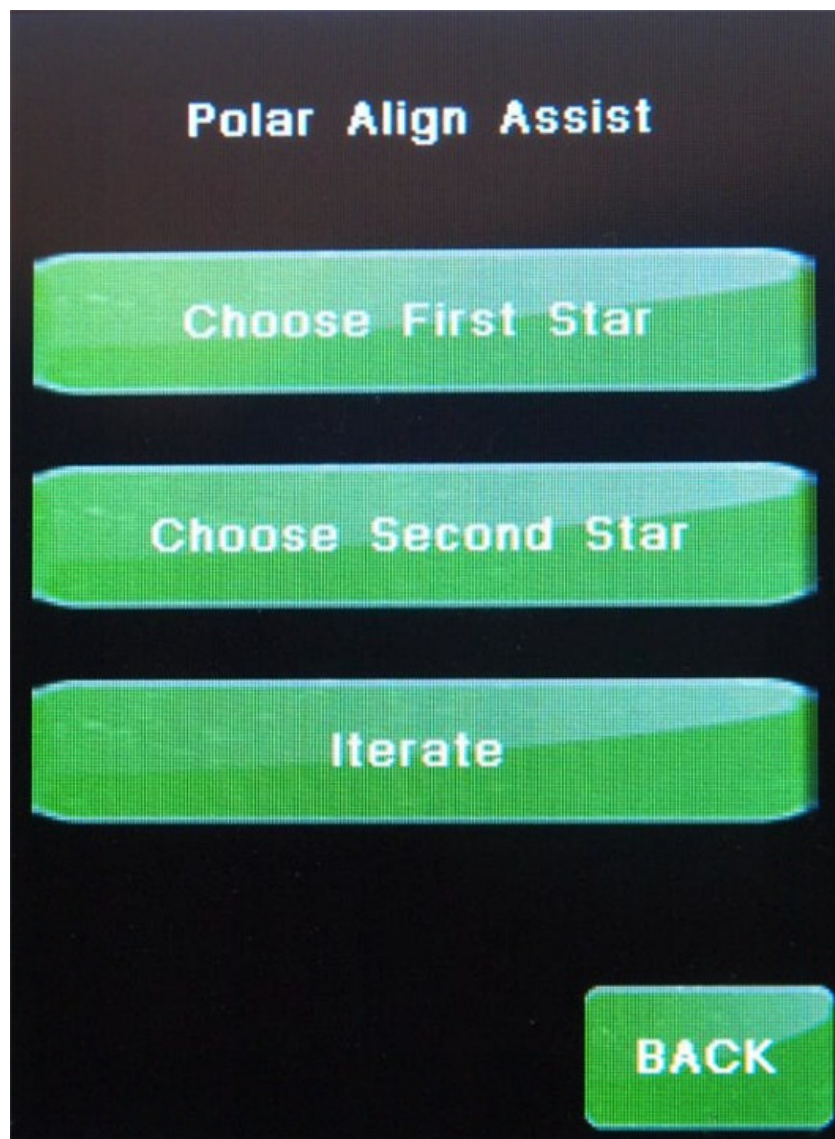
Select First Star

The first one should be near the celestial equator (Dec. near 0) and within about 20° of the eastern or western horizon (about + or - six hours east or west).

I chose Dubne for my first star so for this demo please click on Dubne.

Notice the numbers on the left are the hour angles of the RA and the numbers on the right are the Dec in degrees.

***Interactive Hand-Controller Menus - click on green button to
navigate***



We now have to choose the second star. So hit Choose Second Star.

Polar Align Assist

**Interactive Hand-Controller Menus - click on green button to
navigate**

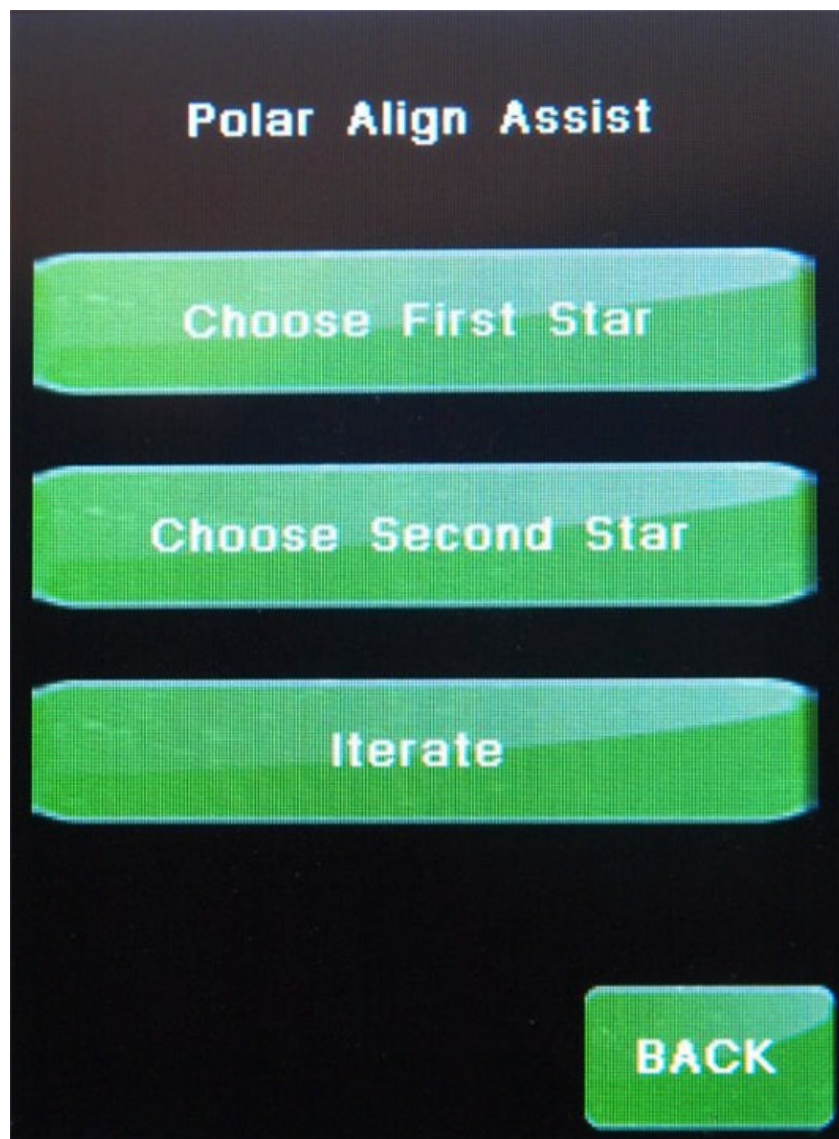
+0	Aldebaran α TAU	72
+4	Algenib γ PER	33
+4	Alpheratz α AND	39
-1	Betelgeuse α ORI	54
+0	Capella α AUR	72
+4	Caph β CAS	43
-2	Castor α GEM	47
+3	Diphda β CET	18
DOWN UP BACK		

Select second star

The other star should be near the meridian (such as Polaris in the northern hemisphere).

I am going to chose Capella, so for this demo click on Capella.

***Interactive Hand-Controller Menus - click on green button to
navigage***

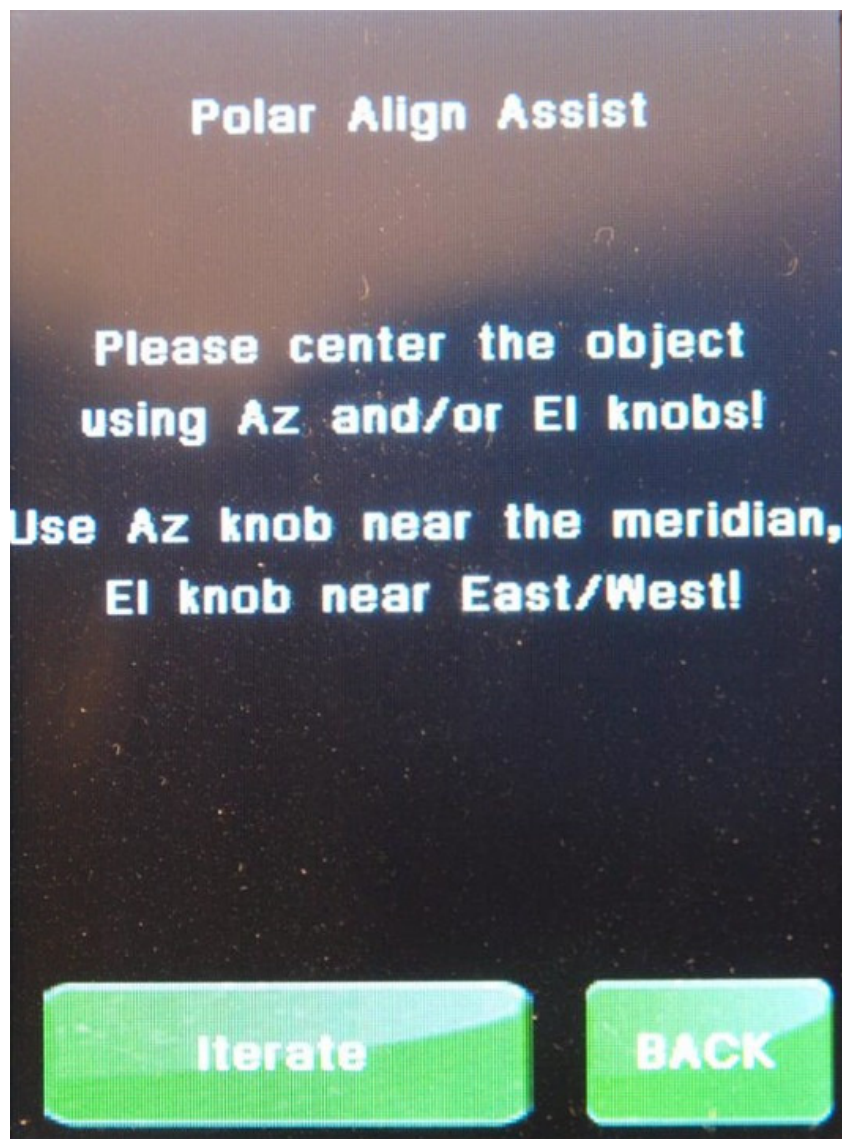


Polar Align Assist

Now that we have picked 2 stars hit Iterate. The routine will first show a goto menu, going to the first star you picked. and then will show the next menu.

Hit Iterate.

***Interactive Hand-Controller Menus - click on green button to
navigate***



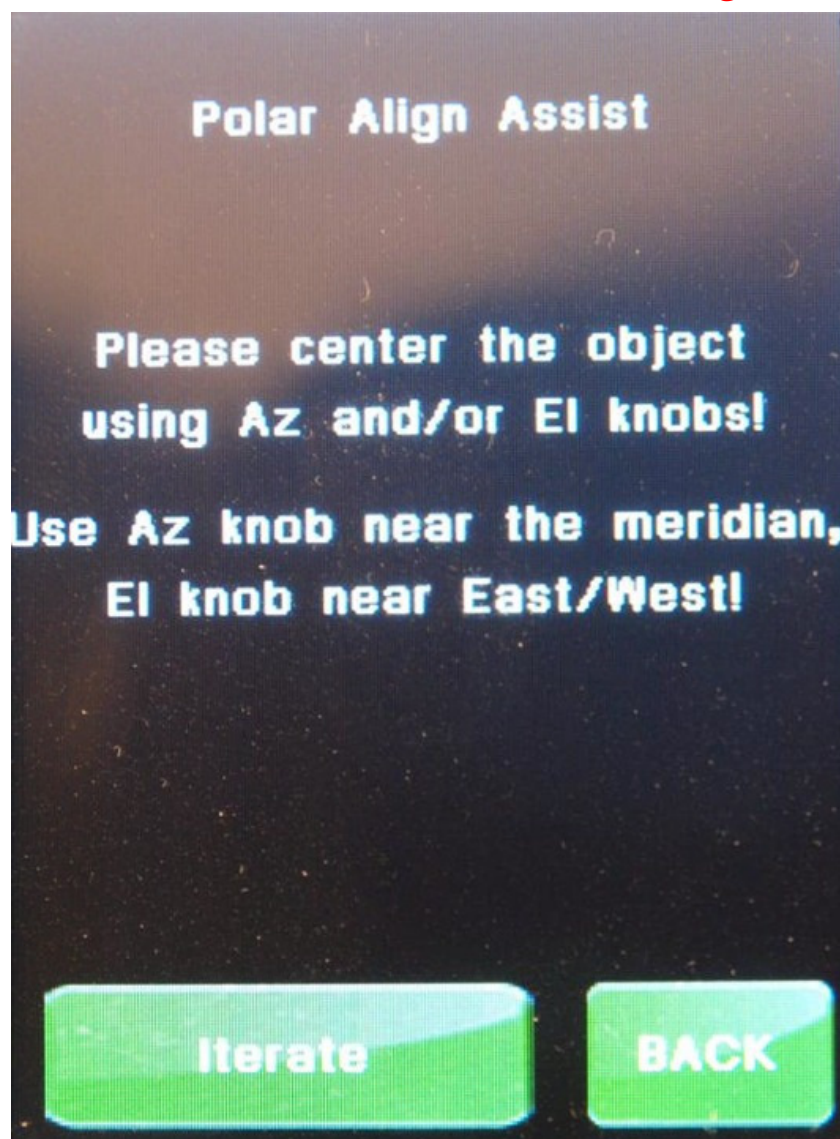
Center First Star

Please follow the instruction and center the first star.

Once you have centered the star, then hit Iterate. It will take you to the next star, and then show a menu just like this one.

Please hit Iterate

***Interactive Hand-Controller Menus - click on green button to
navigate***



Center Second Star

Please follow the instruction and center the second star.

Now you really want to do this routine about 3 times to get within 1 degree of the pole. Each time you should get closer.