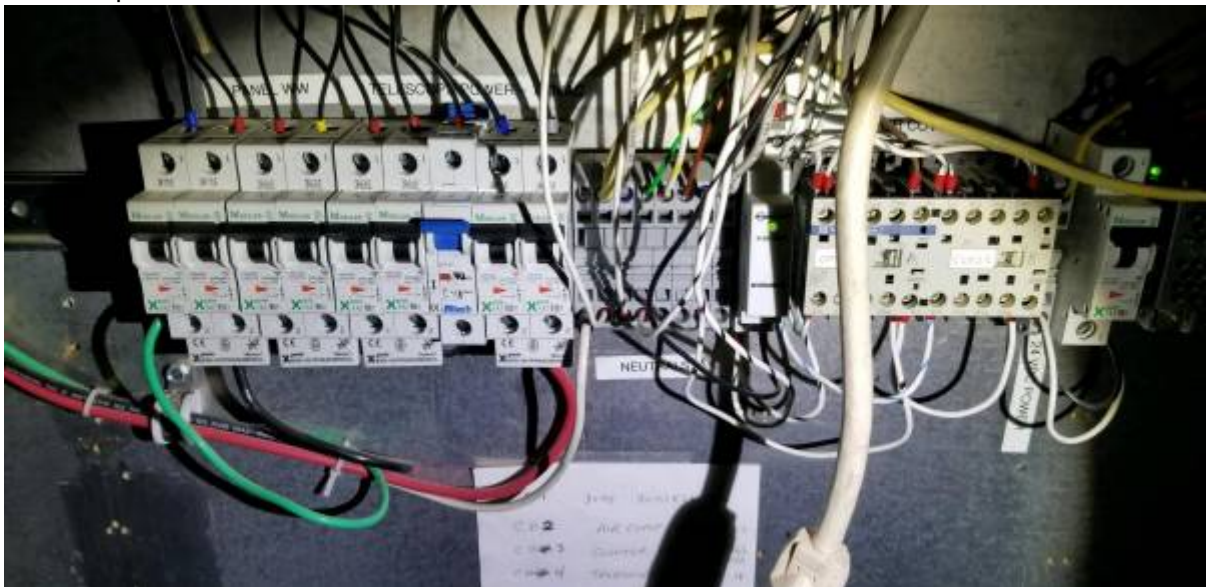


# What to do if the mirror covers don't open all the way

1. First you want to check to make sure the mirror cover breaker didn't trip.
  1. The breaker is found on the 2nd floor in the pier room, where you plug in the UPS when coming out of lightning shutdown. It's on the wall opposite of the door through which you enter the room.
  2. On that wall you will see a row of breakers with a white piece of paper taped under it. The white piece of paper will show that breaker #7 is for mirror covers, and is the only blue breaker pictured below.



3. You want to make sure the blue breaker is up, if it's not, push it up.

## If the breaker did not trip (was in the UP position when you checked)

1. Go back to the control room and verify which mirror cover is partially closed. Recently we've been having trouble with the NW & NE mirror cover so let's use that as an example...
2. If the NW mirror cover didn't open all the way, you want to tip the telescope low **due north** by sending the scope to El:30, Az:0. The telescope acts funny around the pole, so you want to go straight north with no RA deviation, otherwise the telescope may end up in a hard limit. By doing this the troublesome mirror cover's own weight will help open the petal stuck closed.

## If the breaker did trip

1. Push the blue breaker in the UP position, and return to the control room.
2. Attempt to close the mirror covers. Note: the petals may close and open as they try to get back in sync.
3. If they don't close all the way, press open.
4. If they don't open all the way tip the telescope low (El: 30 in the north, 15 due south) in the direction of the stuck mirror cover. Above I used the example of the NW mirror cover being

stuck partially closed. Only tip the telescope due N, E, S, W to keep it simple. If you try to tip the telescope low in the north with any RA deviation, the telescope may get stuck in a hard limit. Tipping it low should help gravity and the mirror cover's own weight help it open.

## If you went through whichever checklist applied to you above and you are still having problems

1. Return to the second floor pier room and check the mirror cover breaker again. If it tripped again, repeat the steps above.
2. If it didn't you can try this as a last resort:
  1. You want to make sure the telescope is at stow and the mirror covers have power (the blue breaker is UP on the 2nd floor)
  2. Turn off Telescope Power, RA oilpad, whichever compressor you're using, RA preload, and DEC preload.
  3. Choose to either "Close Mirror Covers, or "Open Mirror Covers", and while the petals are moving, turn off Console Power using the switch. The mirror cover's motion should stop.
  4. Turn on Console Power
  5. Choose to do the opposite of what you did previously; if you chose to "Close Mirror Covers", now choose "Open Mirror Covers", and vice-versa.
  6. They should now sync correctly. If one is still not opening try moving the telescope to gravity assist the cover like it's described above.

## If you've done everything above, and it's still not working

Call us!

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2. Joe Hoscheidt
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5. Bill Wood
6. Dan Avner

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