



## StarSeek Wi-Fi Serial/USB Module Frequently Asked Questions

This page contains answers to the most frequently asked questions about our StarSeek Wi-Fi wireless telescope controller.

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- 1. I know the StarSeek Wi-Fi module works with Orion's StarSeek apps. But does it also work with SkySafari apps?**
- Yes. The StarSeek Wi-Fi module will work with SkySafari iPhone apps, and our StarSeek apps will work with Southern Stars' SkyFi wireless adapter. They are fully interoperable.
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- 2. Will StarSeek Wi-Fi work with my telescope?**
- StarSeek Wi-Fi can wirelessly enable any telescope with a standard RS-232 serial interface or a USB interface. This includes almost every model by Orion, Meade, Celestron, SkyWatcher, and Takahashi. Some Meade ETX models (60/80) ship with the Autostar #494 controller. To make StarSeek Wi-Fi work with these scopes, you need to replace the #494 Autostar controller (which does not have a serial port) with the #497 Autostar (which does). Contact Meade to upgrade your controller.
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- 3. What kind of range should I expect from my StarSeek Wi-Fi wireless controller?**
- It really depends on the environment. Outside, at night, in an RF-quiet environment with no other Wi-Fi networks around, performance is best. We've had users report being able to control their telescopes from more than 100 feet away! Indoors, with many other competing 2.4 GHz sources (other Wi-Fi networks, cordless phones, etc.), range is much worse, especially if there are a lot of RF-reflective metal surfaces around.
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- 4. What happens if there are two StarSeek Wi-Fi networks in range, for example at the same star party?**
- This can indeed cause problems: you may be unable to talk to your own StarSeek Wi-Fi, or worse, the other one may be able to control your telescope!
- For this reason, we suggest that you rename your own StarSeek Wi-Fi network, and/or turn on WEP security. If you do these things, then multiple StarSeek Wi-Fi networks can co-exist in the same physical area, just as multiple Wi-Fi networks can co-exist in the same coffee shop.
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- 5. I can join StarSeek Wi-Fi's wireless network, but I can't control my telescope – I get an error message that says "the telescope is not responding." What should I do?**
- Make sure you have selected the correct telescope type (in the StarSeek app). Make sure your telescope is turned on, aligned, and (for a few models) set to use "RS-232 mode" which will let it accept external commands. The SynScan hand controllers supplied with some Orion and SkyWatcher telescopes must not be in "PC-DIRECT" mode in order to respond to external commands. Check your telescope owner's manual for details.
- Also check that the serial cable is securely connected to both StarSeek Wi-Fi's RJ-11 jack and to your telescope's serial port. Make sure the cables are not kinked or bent. Also make sure you've connected the cable to the correct RS-232 port on your telescope, and not the AUX port, autoguider port, etc.
- For all Orion models, the RS-232 jack is on the bottom of the SynScan hand controller. For Celestron models, it's on the bottom of the NexStar controller. For Meade LX-200 and LX-400 telescopes, the RS-232 jack is on the mount base; for Meade ETX telescopes with Autostar controllers, it's on the bottom of the controller. For other models, or if you are unsure, check your telescope owner's manual for details.
- Also, make sure you're using the correct serial cable for your telescope! Different telescope types require different serial cables. If you've built your own cable for connecting StarSeek Wi-Fi's serial port directly to your telescope's serial port, make sure that the pinout is correct. Please note that Orion does not provide support for building custom serial cables.
- If you are running on a Mac or PC, other software on your computer may be blocking its network connection to StarSeek Wi-Fi. Firewalls, anti-virus, and web or e-mail proxy software are likely culprits. Try turning them off, then browse to <http://10.0.0.1/> to see if you can view StarSeek Wi-Fi's configuration web page. If not, something else is blocking network access to StarSeek Wi-Fi.
- Also try updating StarSeek Wi-Fi's firmware using the serial adapter cable supplied with StarSeek Wi-Fi. If successful, that rules out the StarSeek Wi-Fi adapter cable.
- If all else fails, you can ship your StarSeek Wi-Fi module back to us, and we can take a look at it. All StarSeek Wi-Fi units are tested before sending them out the door; however, it's possible that your unit may have been damaged in shipping.

<p><b>6. I can control my telescope using StarSeek Wi-Fi, but I'm experiencing frequent communication dropouts. What can I do?</b></p>	<p>The number one culprit is usually low batteries, either on StarSeek Wi-Fi, or on your iPhone/iPad/iPod touch. Try replacing StarSeek Wi-Fi's batteries, or using external power. Also make sure your iPhone/iPad/iPod battery is well-charged.</p> <p>Another culprit is RF interference from other Wi-Fi networks or 2.4 GHz cordless phones. This is more difficult to fix, but you can try by changing the Wi-Fi channel that the StarSeek Wi-Fi module is using. You might also want to try reducing the telescope communication update rate in the StarSeek app.</p> <p>If you have an iPhone 3G or later, go to the main iPhone Settings app, then go to the General &gt; Network section. Find the "Enable 3G" or "Cellular Data" switch, and turn it OFF. For some reason, the 3G network seems to bring down the iPhone's Wi-Fi interface periodically. You can turn the 3G network on again after using StarSeek- in fact, just briefly turning this switch OFF and ON again sometimes seems to clear the problem.</p>
<p><b>7. My StarSeek Wi-Fi wireless telescope controller is not working on battery power. What should I do?</b></p>	<p>Try changing the batteries (all of them!) Very rarely, a battery has a short-circuit inside it; this will prevent StarSeek Wi-Fi from using the voltage supplied by the other batteries, even if the battery with the short is fully charged. Also make sure the batteries are inserted in the correct (+ and -) polarity orientation.</p>
<p><b>8. If I use four alkaline batteries to power the StarSeek Wi-Fi module, how long will they last?</b></p>	<p>About 8 to 10 hours under normal operating conditions.</p>
<p><b>9. I'm powering the StarSeek Wi-Fi module with an external 12-volt battery. After being on for a while, the StarSeek Wi-Fi module feels quite warm. Is this normal?</b></p>	<p>Yes. StarSeek Wi-Fi only needs 6 volts of power, the rest is dissipated harmlessly as heat. StarSeek Wi-Fi can operate properly at temperatures up to 175 F!</p>