

ORION® StarSeek™ Telescope Control Cable

Command your GoTo telescope from your
iPhone®, iPad®, or iPod touch®!



Made for iPod touch (2nd, 3rd and 4th generation), iPhone 4, iPhone 3GS, iPhone 3, iPad 2 and iPad. "Made for iPod," "Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance. iPad, iPhone, iPod, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc.

Introduction

The StarSeek Telescope Control Cable (STCC) enables you to control a serial-equipped GoTo telescope with an Apple iPhone, iPad, or iPod touch running Orion's StarSeek, StarSeek Pro, or StarSeek Max astronomy apps. You'll need iOS 4 or higher on your Apple device and version 3.0.2 or later of StarSeek 3, StarSeek 3 Pro, or StarSeek 3 Max installed. If you have an earlier version of either, please update to the latest version before attempting to use the STCC. Just go to the App Store™ – updates are free of charge.

The "Other" Cable You Need

In addition to the STCC, you'll need the serial cable that came with your Orion GoTo telescope (**Fig. 1**) or your non-Orion brand GoTo telescope. The STCC's DB-9 male plug connects to the telescope serial cable's DB-9 female connector. Different telescopes require different serial cables, so if your scope didn't come with one, or you've lost track of it, contact your telescope manufacturer to make sure you get the correct serial cable for your scope.

The STCC itself is 6' long, which should allow plenty of "leash" while you're at the scope navigating the night sky. The telescope's own serial cable will add even more length.

Compatibility

The STCC works with any telescope/mount that's equipped with an RS-232 (serial) port interface. Most telescopes have one, but a few do not, including:

- iOptron SmartStar and MiniTower mounts with GOTO Nova controllers
- Meade ETX-LS scopes
- Vixen mounts with StarBook controllers

These telescopes have USB or ethernet interfaces, which are not compatible with the STCC. And unfortunately, using a USB to serial adapter to make the connection will *not* work.

Getting Connected

1. Turn on your iPhone, iPad, or iPod touch and launch the StarSeek app.
2. Plug the STCC's DB-9 male connector into the telescope serial cable's DB-9 female connector. (**Fig. 2**)

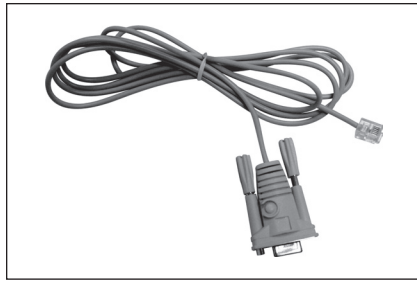


Figure 1.



Figure 2.

3. Plug the STCC's dock connector into your iPhone, iPad, or iPod touch (**Fig. 3**). [NOTE: the StarSeek logo on the STCC connector should be facing *UP*.] You should see a message on the device saying that the STCC has been successfully connected. If instead you get the message, "This accessory is not supported by [your device]," then the STCC is not properly connected. Unplug the cable and then plug it in again securely.
4. Now plug the free end of your telescope serial cable into the RS-232 port on your telescope or mount. The port will usually be a modular RJ-11 or narrower "handset" type "telephone" receptacle. On Orion GoTo telescopes and some other telescope brands, the RS-232 port is located on the hand controller (**Fig. 4**). On some mounts the RS-232 port resides on the mount itself.

IMPORTANT: Do not connect the STCC to the AUX port, hand controller port, autoguider port, or any port on your telescope (or its hand controller) other than its RS-232 serial port! Doing so may damage the STCC and/or your telescope hardware. Make sure you know where the RS-232 serial port on your telescope is located, and only connect the STCC to that port. Consult your telescope's manual if necessary.

5. Now that your iPhone, iPad, or iPod touch is physically connected to your telescope, turn on power to the scope.
6. Run through the GoTo alignment procedure for your telescope *using your telescope's hand controller*. (The alignment procedure cannot be done from the iPhone, iPad, or iPod touch.) Once you've done that, you won't need to use the telescope hand controller again.
7. In StarSeek, tap the Settings icon on the bottom toolbar, then scroll down to Telescope Communication and select your scope type and mount type. You don't need to enter anything else on this screen. Then tap the Done button.



Figure 3.



Figure 4.

8. Now, tap the Scope icon in the toolbar to display the telescope control interface. Tap the Connect button to initiate communication with the telescope. If it's successful, you should see a bulls-eye on the star chart indicating where the telescope is pointing.

Now you're all set to command your telescope's every movement via StarSeek on your iPhone, iPad, or iPod touch!

Specifications

Length:	72 inches
Connectors:	30-pin iPhone/iPod/iPad connector, DB9 male RS-232
Power Use:	< 50 mA under continuous use; < 5 mA when idle
Baud Rate:	57.6 kbps maximum
Data Bits:	7 or 8
Stop Bits:	1 or 2
Parity:	None, Even, or Odd
Flow Control:	XON/XOFF, RTS/CTS
Modem control signals:	CTS, RI, DTR, DCD, RTS, DTR
Certifications:	FCC part 15B, CE, RoHS, MFi (Made for iPod)
iPhone compatibility:	any iPhone, iPad, or iPod touch running iOS 4 or later
Telescope compatibility:	any telescope model with an RS-232 serial port

FC **CE** This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference; and 2) this device must accept any interference received, including interference that may cause undesired operation.

One-Year Limited Warranty

The Orion StarSeek Telescope Control Cable is warranted against defects in materials or workmanship for a period of one year from the date of purchase. This warranty is for the benefit of the original retail purchaser only. During this warranty period Orion Telescopes & Binoculars will repair or replace, at Orion's option, any warranted instrument that proves to be defective, provided it is returned postage paid to: Orion Warranty Repair, 89 Hangar Way, Watsonville, CA 95076. If the product is not registered, proof of purchase (such as a copy of the original invoice) is required.

This warranty does not apply if, in Orion's judgment, the instrument has been abused, mishandled, or modified, nor does it apply to normal wear and tear. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. For further warranty service information, contact: Customer Service Department, Orion Telescopes & Binoculars, 89 Hangar Way, Watsonville, CA 95076; (800) 676-1343.

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Customer Support (800) 676-1343

E-mail: support@telescope.com

Corporate Offices 89 Hangar Way, Watsonville, CA 95076 • (831) 763-7000

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