

MOTOR CONTROLLER REMOVAL PROCEDURES

The following instructions will walk you through the process of safely removing your motor control electronics from your NexStar 11 GPS telescope so it can be **FACTORY REPROGRAMMED**. This procedure will upgrade the software of your motor control electronics from V1.0 to V3.0. Once reprogrammed, you will receive **YOUR** motor control electronics back for re-installation.

Upgrade Kit contents:

1. Anti-static bag
2. Hang tag
3. Bubble wrap
4. Motor controller removal instructions
5. Return mailing label
6. Return mailing postage

WARNING: THESE PROCEDURES REQUIRE PERSONAL CONTACT WITH TELESCOPE ELECTRONICS. DO NOT PERFORM THIS REMOVAL PROCEDURE ON A CLOTH SURFACE, OR WHILE STANDING ON ANY CARPETED SURFACE.

1. Release the Altitude clamp and rotate the optical tube to its original shipping position.

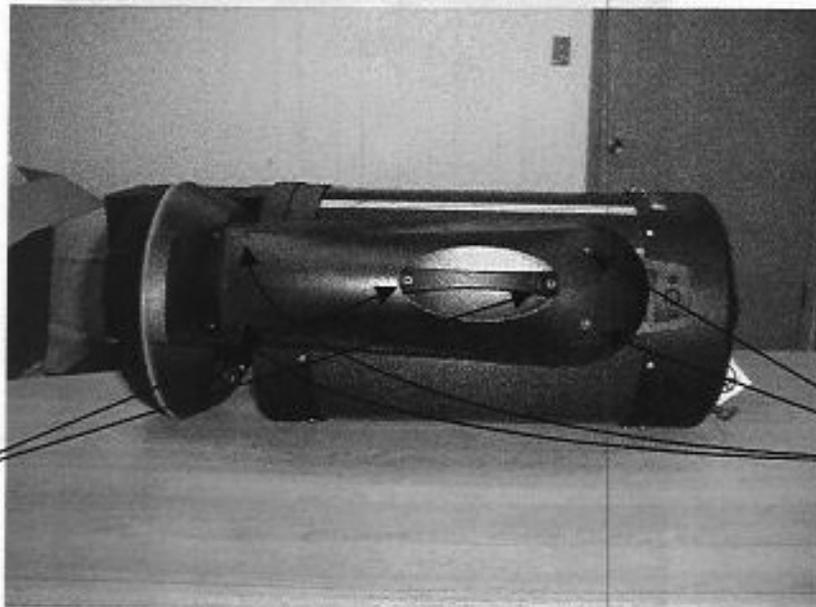
Altitude Clamp
(Not visible on this
side of telescope)



2. Position the telescope so the upper fork arm handle faces you.



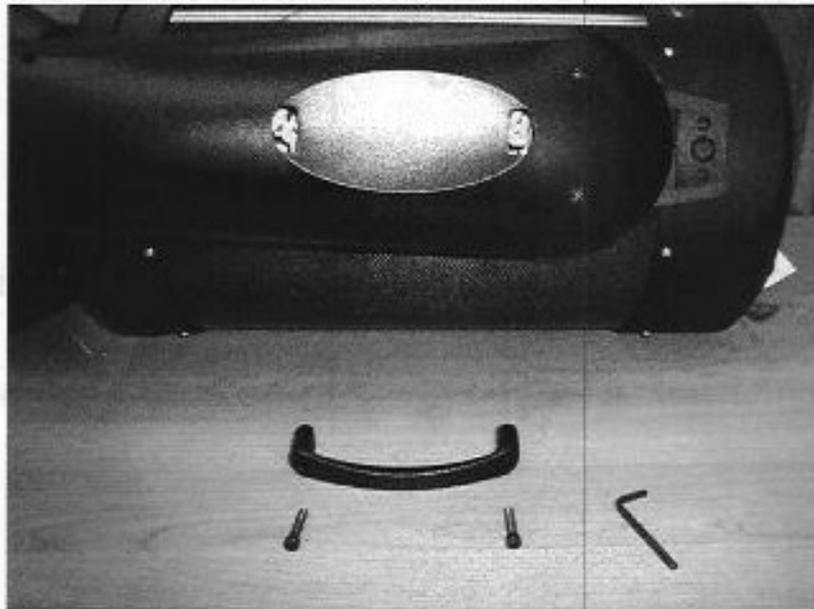
3. Gently lay the telescope on its side (to your right).



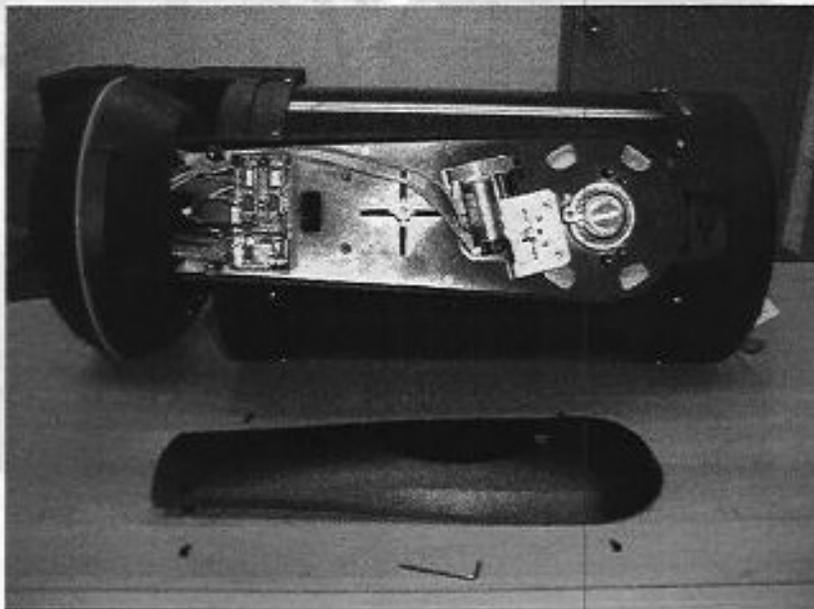
Handle hex bolts (2)

Cover hex bolts (4)

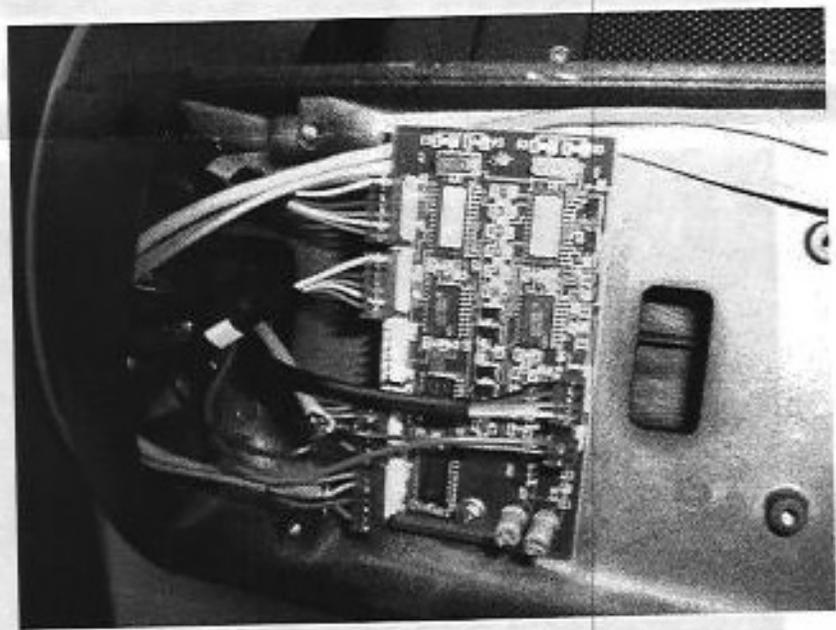
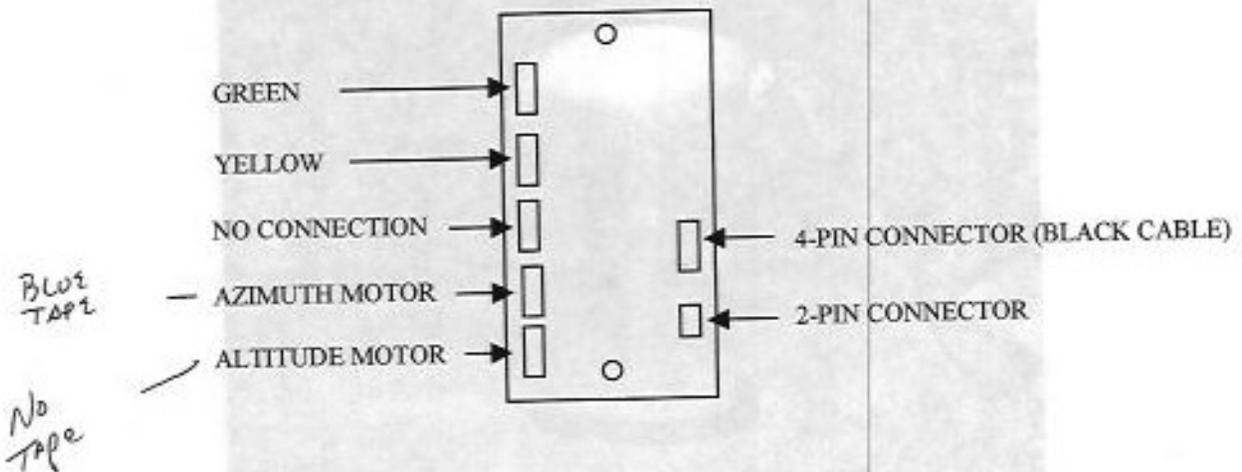
4. Using a 3/16" Allen wrench, remove the 2 hex bolts holding the upper handle to the fork arm and remove the handle.



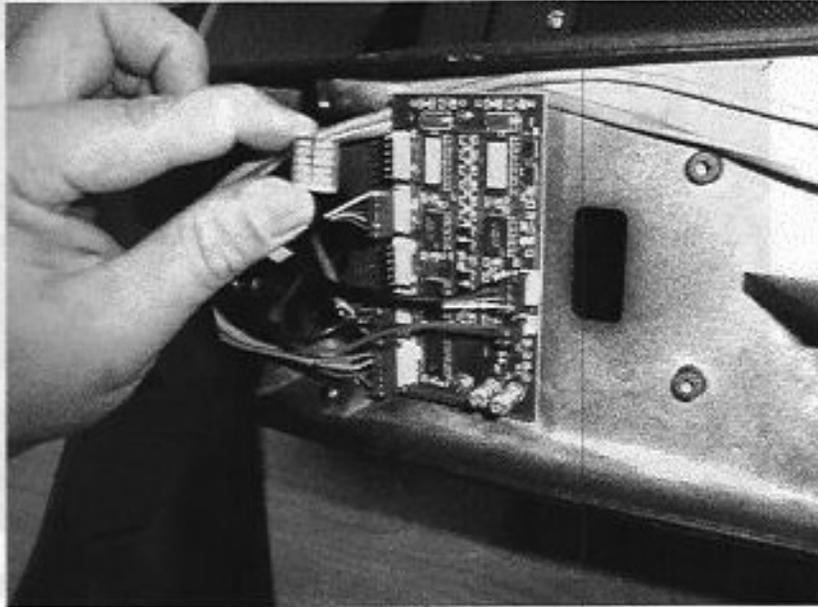
5. Using a 9/64" Allen wrench, remove the 4 hex bolts attaching the upper cover to the fork arm.



6. Using the template provided below, VERIFY the color-coding on each cable attached to the motor controller (some cables do not have color coding).

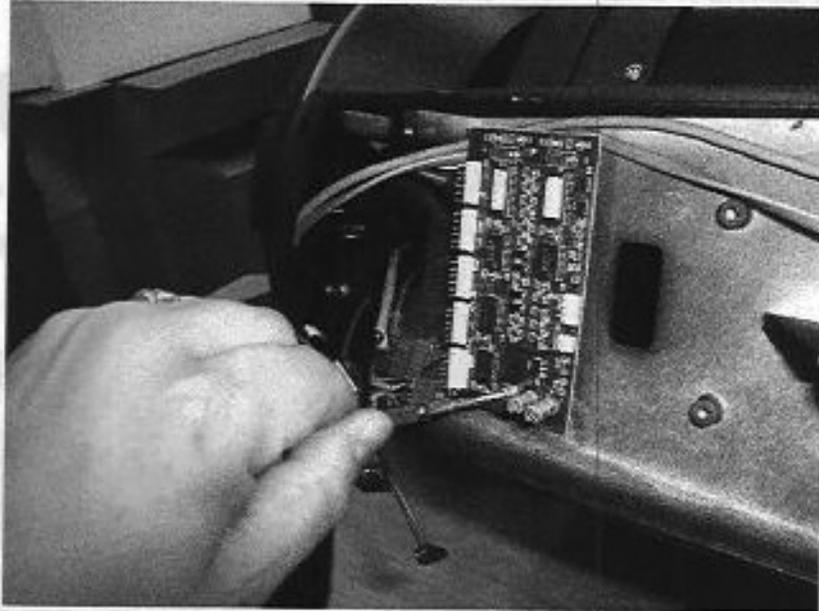


7. Remove each connector, one at a time, by firmly grasping the connector and pulling it away from the motor controller. **DO NOT PULL ON THE CABLE TO REMOVE THE CONNECTOR.**

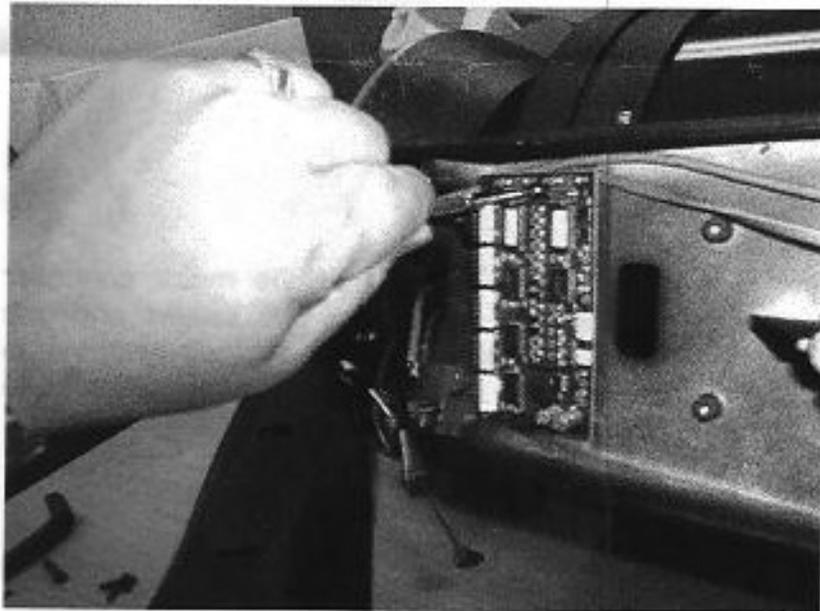


WARNING: Removal of the motor controller requires the removal of two screws and one washer. Take care during their removal to prevent this hardware from entering the base of the telescope.

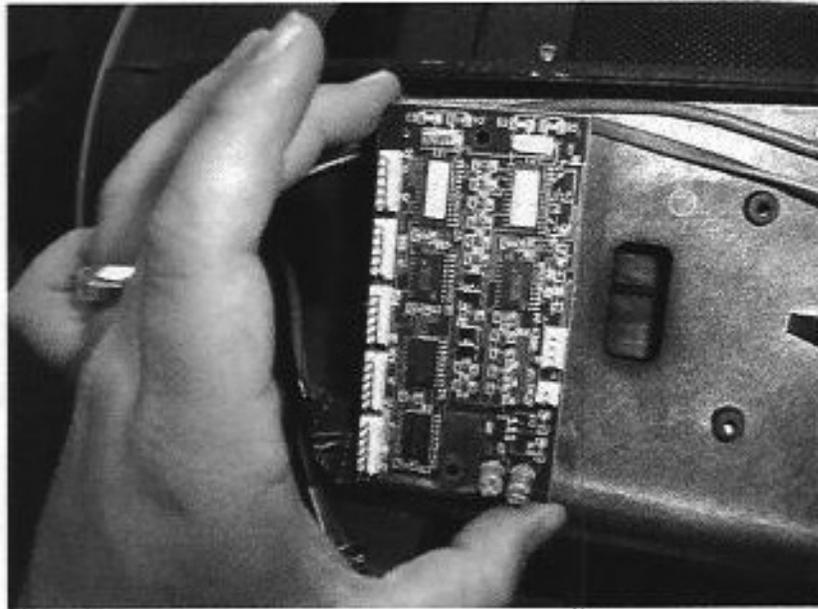
8. Remove the lower screw holding the motor controller to the fork arm.



9. LOOSEN the upper screw holding the motor controller to the fork arm.



10. While holding the motor controller by its corners with one hand, remove the upper screw.



11. Attach the hangtag through one of the screw holes.

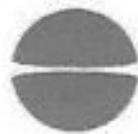
*WASHER
ON BOTTOM*

12. Fill out hang tag with the following information:

- a. RA #,
- b. Telescope serial number,
- c. Your name.

13. Slide the motor controller into the anti-static bag, enclose in bubble wrap, and put into shipping box.

14. Seal shipping box, apply shipping labels and return to Celestron International.



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NEXSTAR 11 GPS MOTOR BOARD UPGRADE

Installing the Upgraded Board –

- Install your circuit board using the reverse of the removal procedure. To avoid any damage to the circuit board, please make sure that you are not performing the installation while standing on a rug or other surface that can create a static discharge. **Note: Do not connect the six pin cable with the purple coded wire to the PGM connector as damage may occur.**
- Before you install the cover on the telescope's fork arm, you will want to perform the following test procedure to make sure all your connections are operating correctly:
 - Stand the telescope up on its base.
 - Plug in the scopes power supply and turn the unit on
 - Without performing an alignment, hit <UNDO> and <MENU> to access the main menu.
 - Using the buttons <UP> and <DOWN>, scroll through the menu and select "GET ALT-AZ"
 - Using slew rate 9, press the <RIGHT> directional button. The azimuth number should increase. Pressing the <LEFT> directional button, the azimuth number should decrease. Pressing the <UP> directional button, the altitude number should increase. Pressing the <DOWN> directional button, the altitude number should decrease.
- If the test is successful, replace the covers and you are ready to use the telescope. If the test is unsuccessful, use the diagram you made during the disassembly procedure to confirm that the wires were plugged into the correct locations. If the problem persists, contact our Technical Support department.

Celestron International
Technical Support Department
2835 Columbia Street
Torrance, CA 90503
310-328-9560
310-212-5835 Fax
Monday – Friday 8am–4pm PST