

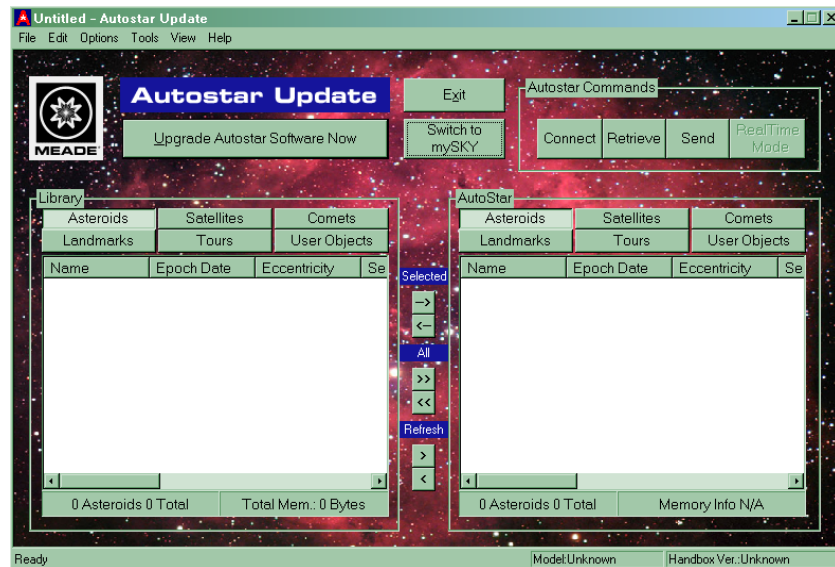


## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE

### 1. UPDATING LS TELESCOPE APPLICATION SOFTWARE

#### 1.1. UPDATE LS VIA USB

- 1.1.1. Connect your LS telescope to the PC and power on.
- 1.1.2. Run Autostar Updater (ASU) from the PC desktop shortcut or the Start > All Programs > Meade > Autostar Updater menu.



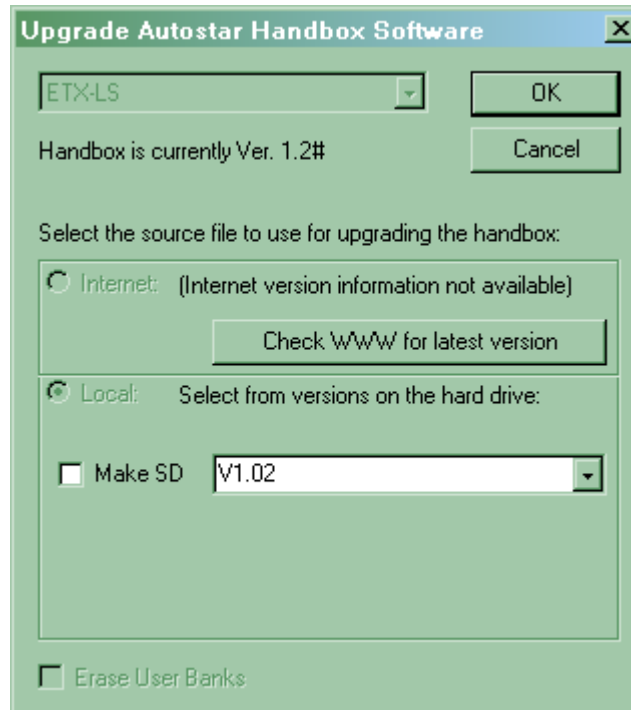
- 1.1.3. Press “Upgrade Autostar Software Now” to update the LS telescope application software.



- 1.1.4. The Updater will report that the LS telescope is connected. Press “OK” to continue.

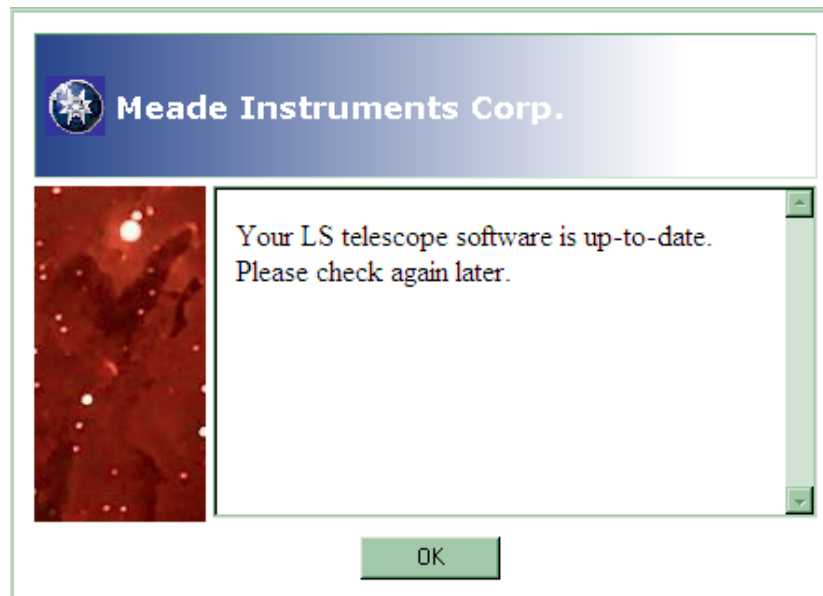


## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE



1.1.5.

Press “Check WWW for latest version.” This compares the software on the local PC with the available updates from the Internet.

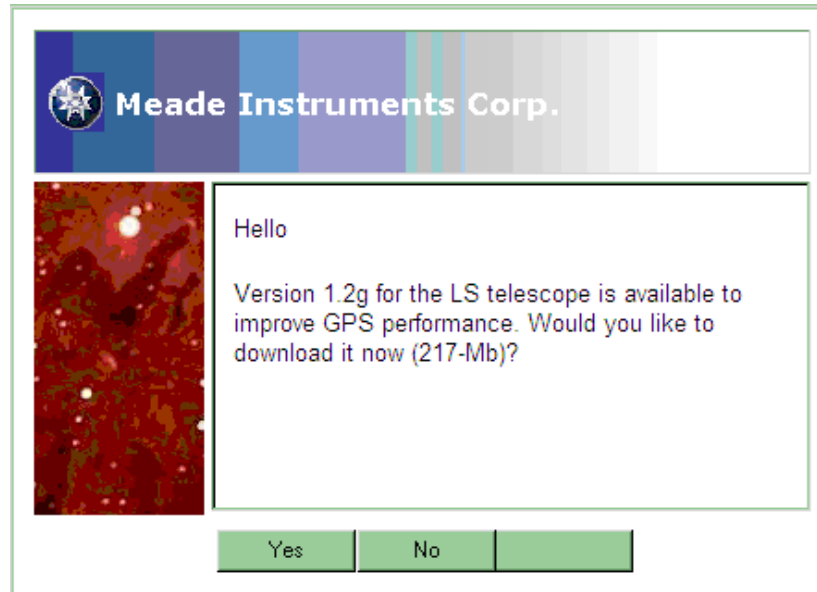


1.1.6.

Your software on the local PC is already up-to-date when this message is displayed.



## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE



1.1.7.

A new LS application software message will be displayed. Press “Yes” to continue.

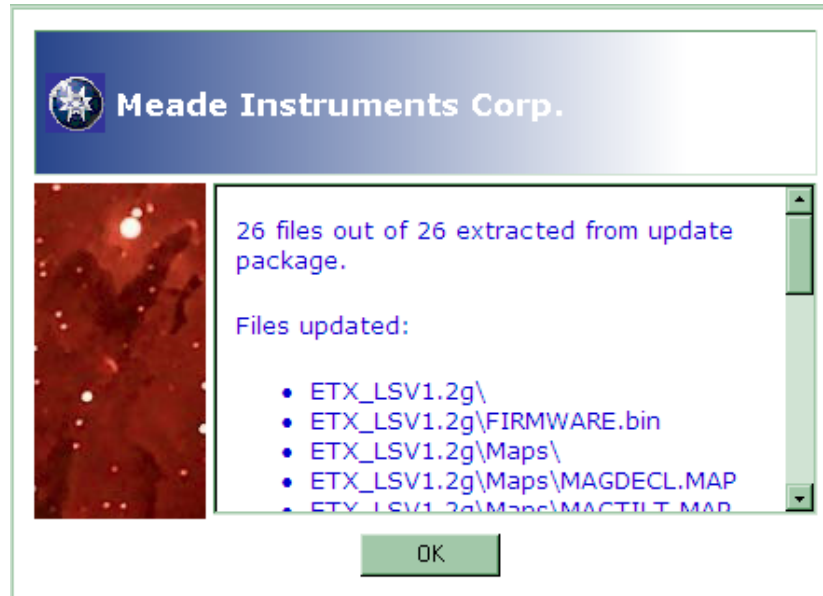


1.1.8.

ASU will download the new software archive. Allow it to complete with some patience.

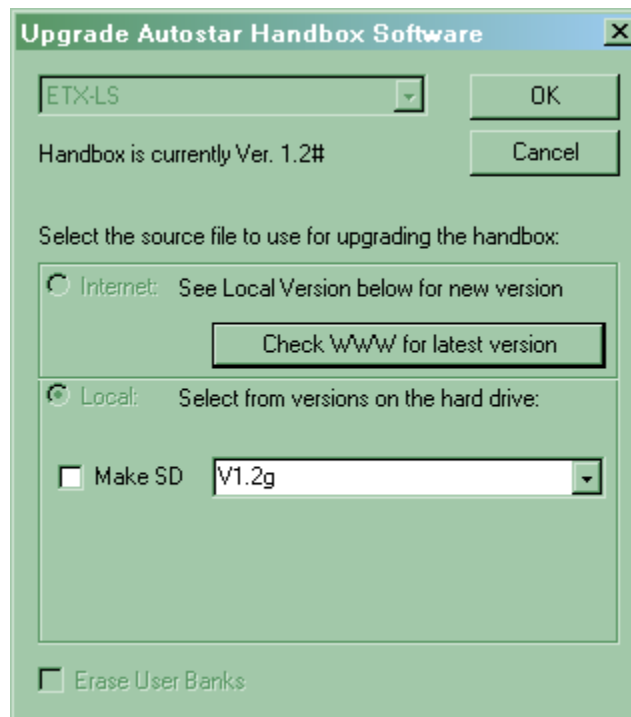


## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE



1.1.9.

ASU will unzip the downloaded archive and display the extracted file list. Press “OK” to continue.

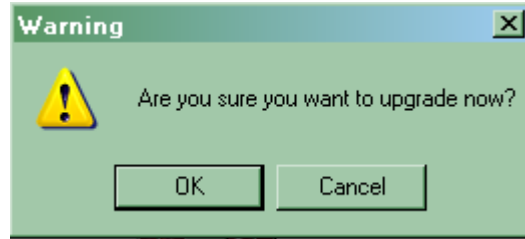


1.1.10.

ASU displays the new application version. Press “OK” to install the software into the LS telescope.

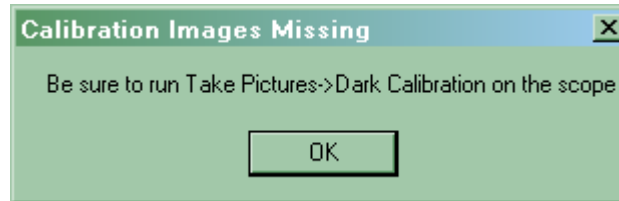


## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE



1.1.11.

Confirm the software upgrade. Press “OK” to continue.



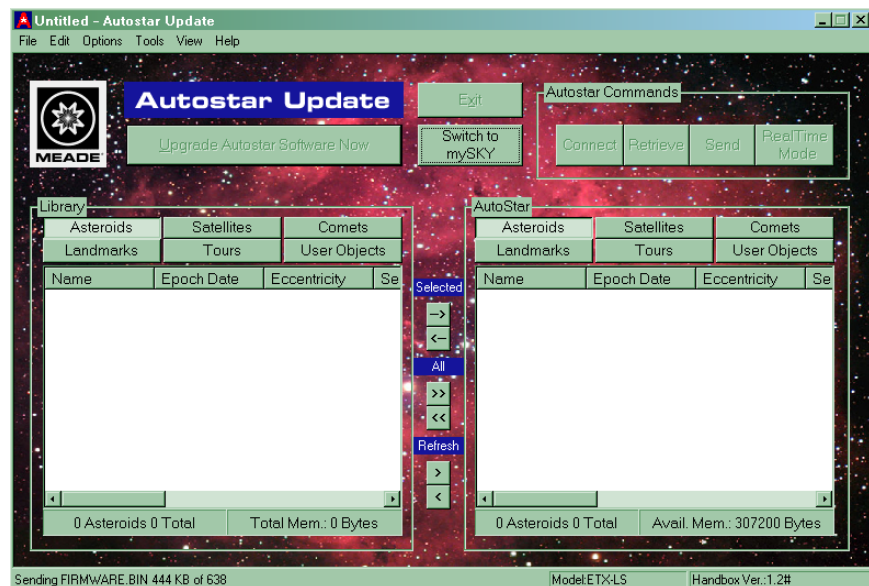
1.1.12.

In some cases, a dark calibration reminder may be displayed at the beginning of the software transfer.

1.1.12.1. If this advisory appears, a dark calibration is recommended after you have completed the software update.

1.1.12.2. Refer to the dark calibration Troubleshooting Tips, or the Instruction Manual, for further information.

1.1.12.3. Press “OK” to continue.



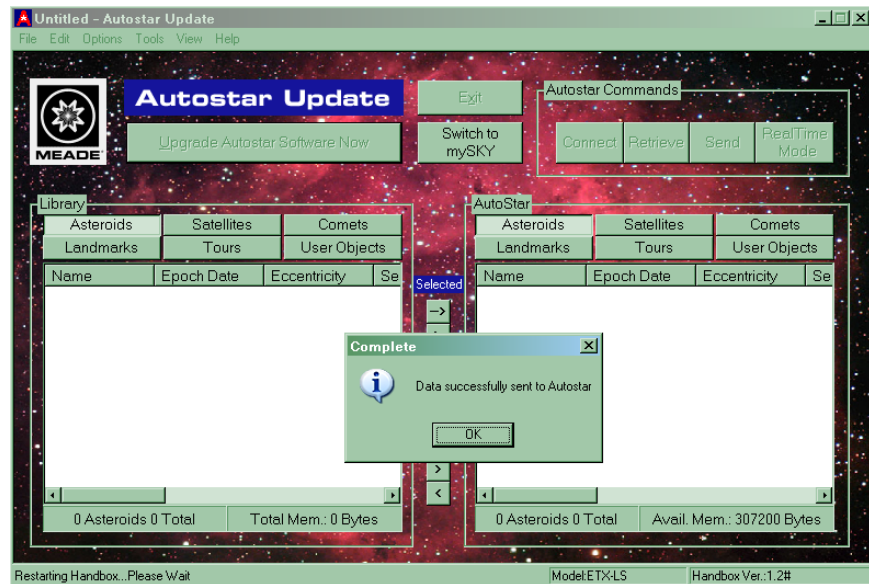
1.1.13.

Progress of the software update is displayed in the lower-left corner of the ASU screen.



## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE

- 1.1.14. The copying and validating of large files to the telescope will take less than an hour.



- 1.1.15.

The update is completed successfully. Press “OK” to continue.

- 1.1.16. The LS telescope handbox will display:  
“Update Complete  
Cycle Power”.

- 1.1.17. Turn the LS telescope power off and on; the new version will be displayed on the handbox startup screen.

- 1.1.18. Enjoy your updated LS telescope!

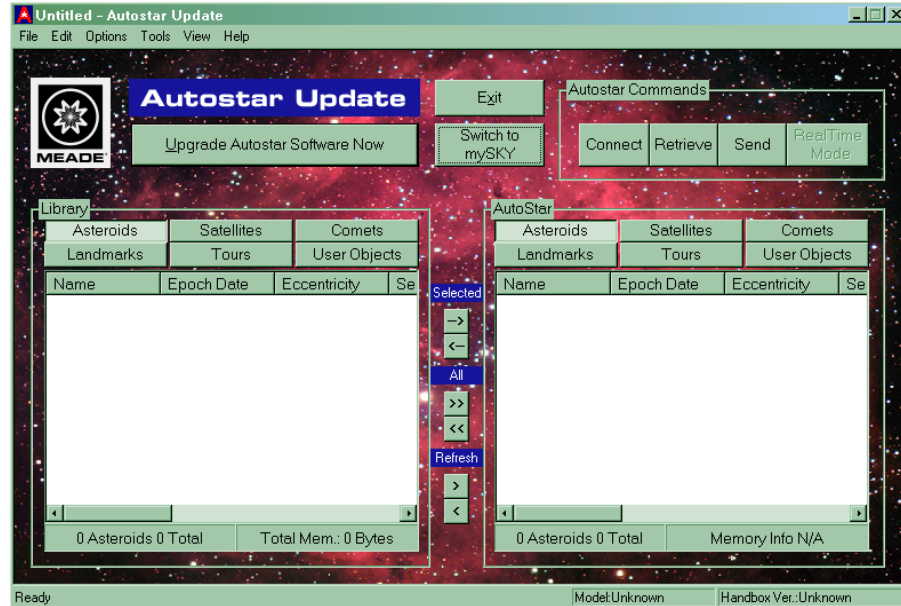
### 1.2. UPDATE LS VIA MINI SD CARD

- 1.2.1. A mini SD Card can be used to update the LS telescope without a nearby PC and USB connection.

- 1.2.2. Run Autostar Updater (ASU) from the PC desktop shortcut or the Start > All Programs > Meade > Autostar Updater menu.

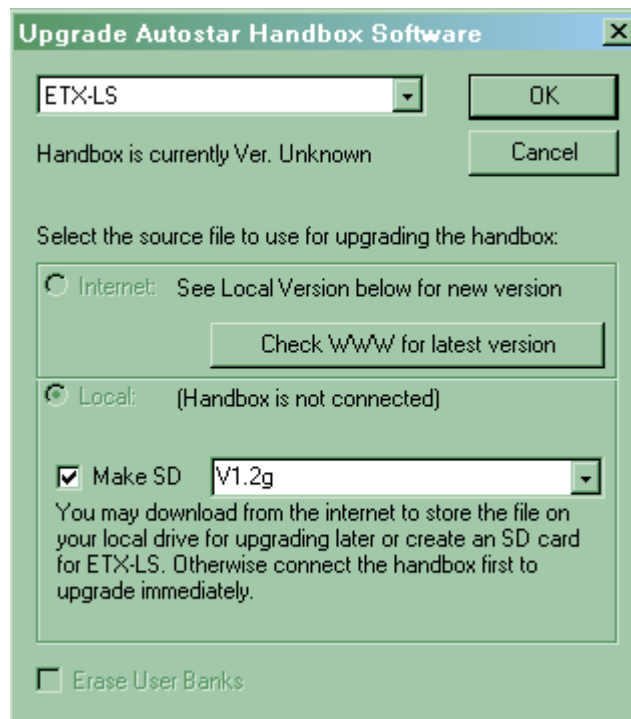


## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE



1.2.3.

Press “Upgrade Autostar Software Now” to update the LS telescope application software.

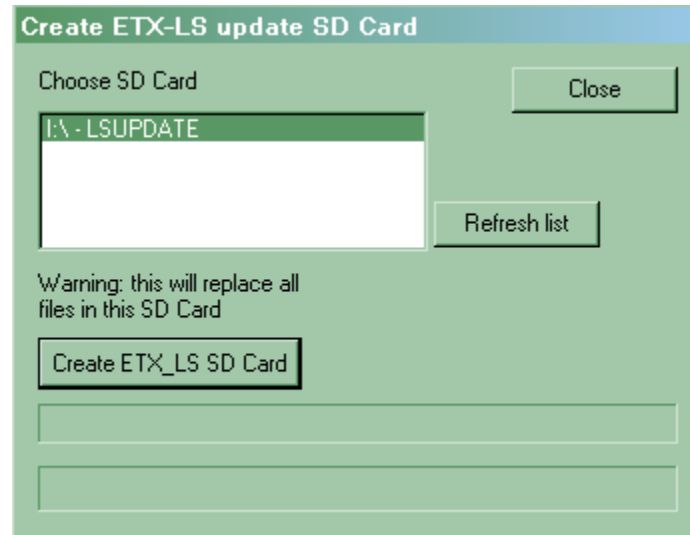


1.2.4.

Select the “Make SD” checkbox. Press “OK” to continue.



## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE



1.2.5.

Carefully select the correct SD Card drive letter representing the mini SD Card.

1.2.5.1.

**CAUTION:** Be aware of the potential of accidentally formatting personal USB disks with important information on them. This format cannot be undone. To avoid accidents, it is recommended that critical USB storage devices be removed from the PC before formatting begins.



1.2.6.

The mini SD Card is ready when this message is displayed.

1.2.7.

Eject the mini SD Card from the PC.

1.2.8.

With the telescope power off, install the loaded mini SD Card into the slot on the telescope. Hint: the gold contacts face the power switch.

1.2.9.

Power on the LS telescope; a startup message will be displayed on the handbox (the version displayed is not the version of software to be loaded in the telescope).

1.2.10.

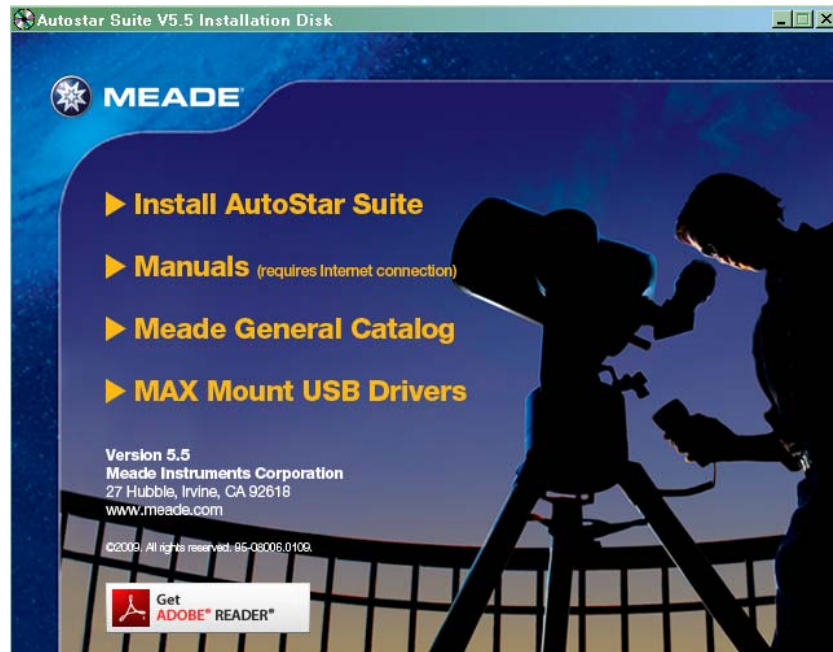
“Copy SD to NAND” will be displayed on the handbox.





## **ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE**

- 1.2.11. Press ENTER to start the software update.
  - 1.2.12. The copying and validating of large files to the telescope will take less than an hour.
  - 1.2.13. “Take SD out”  
Restart
  - 1.2.14. Turn the LS telescope power off and on; the new version will be displayed on the handbox startup screen.
  - 1.2.15. Enjoy your updated telescope!
- 1.3. AUTOSTAR SUITE
- 1.3.1. Install the Planetarium and Telescope Control software, “Autostar Suite” version 5.5 (or higher), from the DVD installation disk you received with your telescope.
  - 1.3.2. Place the DVD in your PC disk drive.

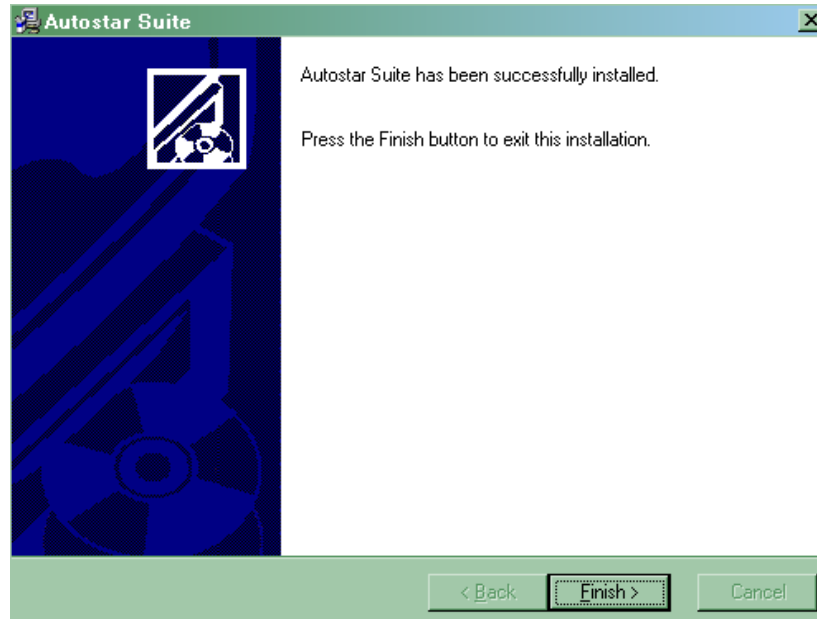


- 1.3.3. Select “Install AutoStar Suite”; the Installation Wizard will begin.
- 1.3.4. Follow the on-screen prompts to install several software modules.



## **ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE**

- 1.3.4.1. The Virtual Moon and GSC catalog are not required to update your LS telescope application software; they can be skipped, if desired.



- 1.3.5. Autostar Suite installation is complete when this message is displayed.

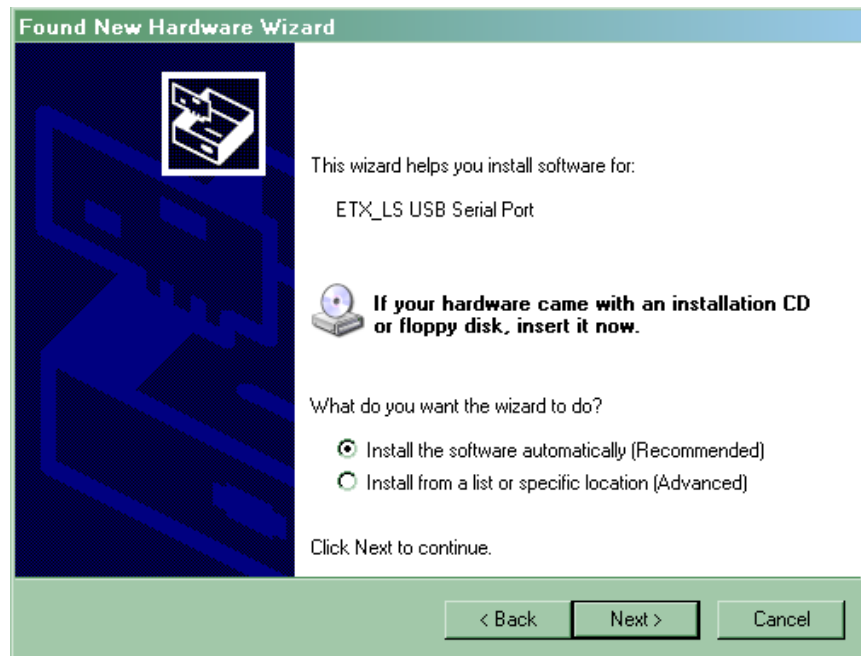
### **1.4. INSTALL USB DRIVER**

- 1.4.1. Ensure the Autostar Suite DVD is placed in a PC DVD drive.
- 1.4.2. Power on the LS telescope.
- 1.4.3. Press the handbox MODE key to abort the automatic alignment mode (if you don't want to wait for it to complete); the telescope will find "home" and wait for commands.
- 1.4.4. Connect a standard USB A-B peripheral cable to the USB-B port on the telescope.
- 1.4.5. Connect the other end of the USB cable to an available USB port on the PC.



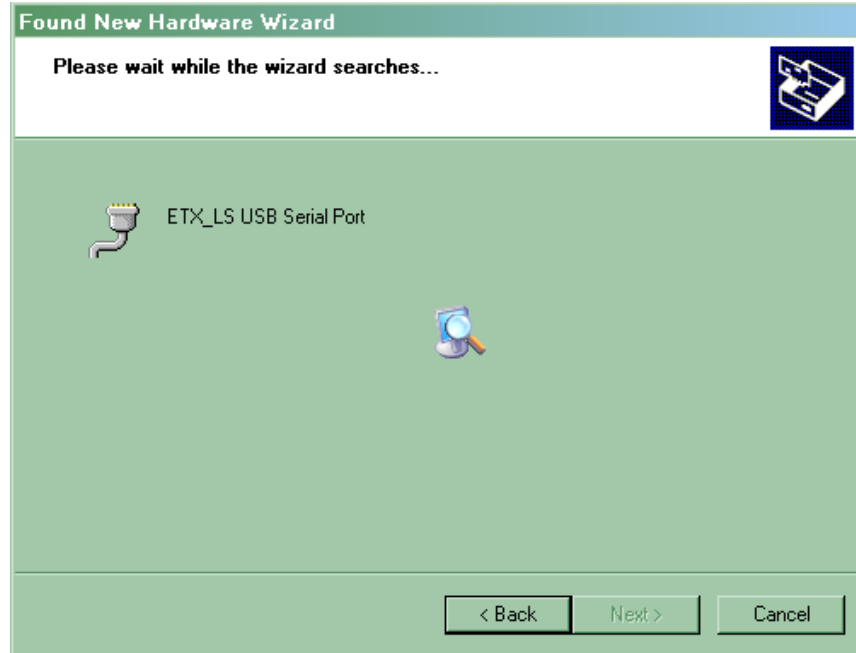
1.4.6.

Windows Plug and Play will automatically run the “Found New Hardware Wizard”. Select “No, not this time” and press “Next >”.



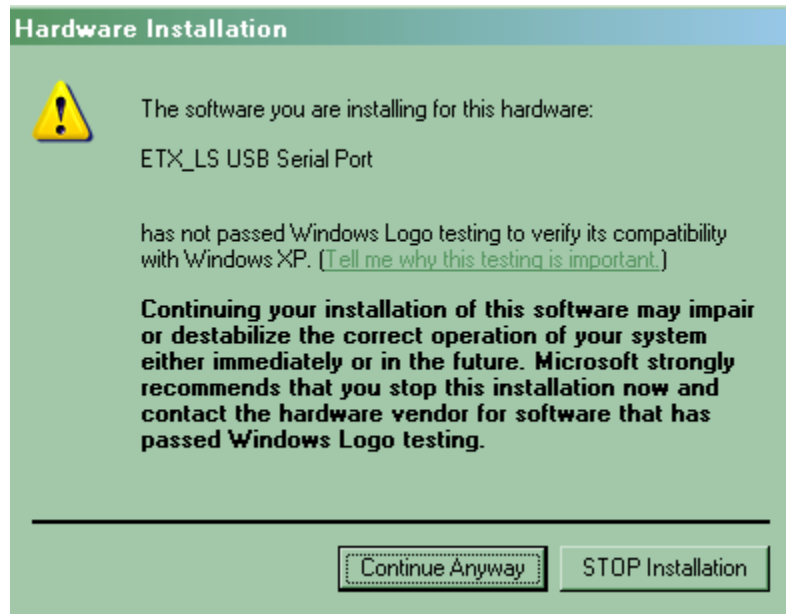
1.4.7.

Select “Install the software automatically” and press “Next >”.



1.4.8.

Windows will locate the LS Serial Port driver from the Autostar Suite DVD.



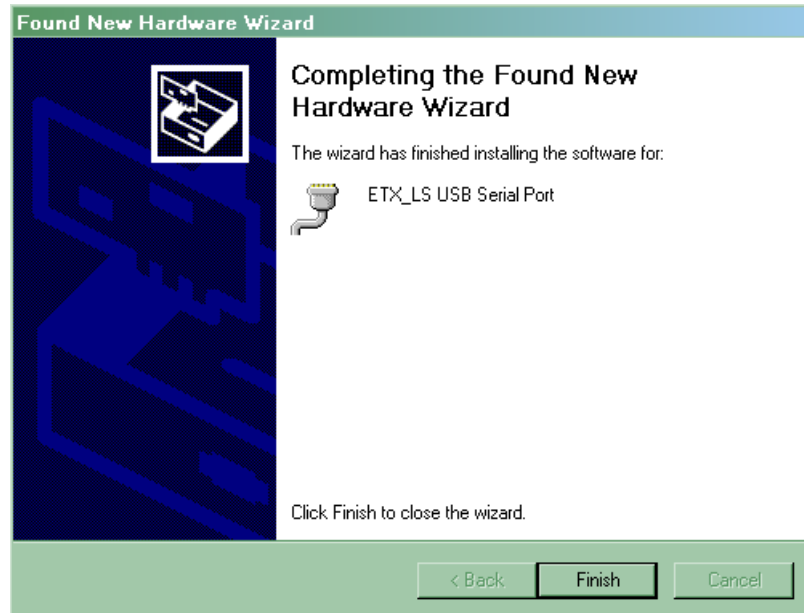
1.4.9.

The LS USB Serial Port driver is compatible with 32-bit Windows operating systems (2000, XP, Vista). Press “Continue Anyway” to continue.



## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE

---



1.4.10.

This message indicates successful installation of the LS USB Serial Port driver. Press “Finish” to complete the installation.

### 1.5. AUTOSTAR UPDATER (ASU)

1.5.1.

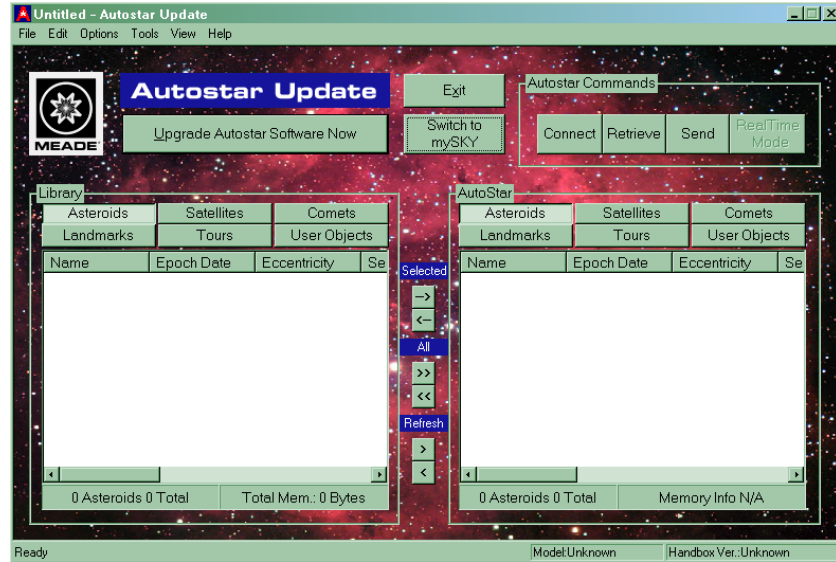
Users must be aware, in advance, that some LS software update downloads are large and may require substantial download time if the PC is not connected to a broadband network.

1.5.2.

Run Autostar Updater (ASU) from the PC desktop shortcut or the Start > All Programs > Meade > Autostar Updater menu.

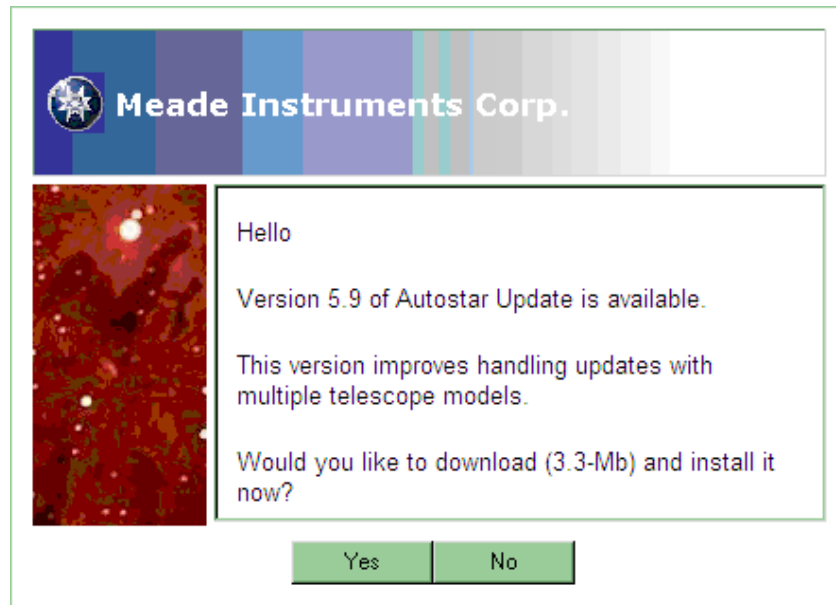


## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE



1.5.3.

ASU can update many Meade products from this control panel.

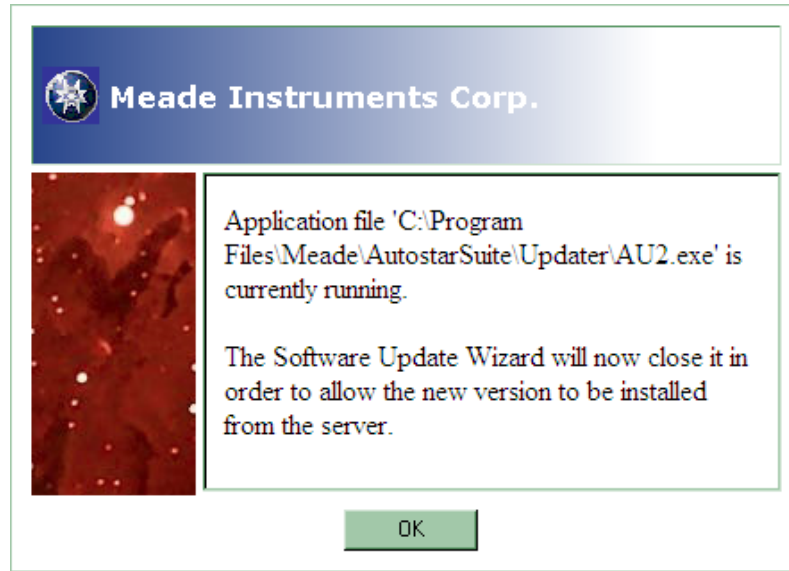


1.5.4.

ASU will automatically check for updates to the Updater itself. Press “Yes” to continue.

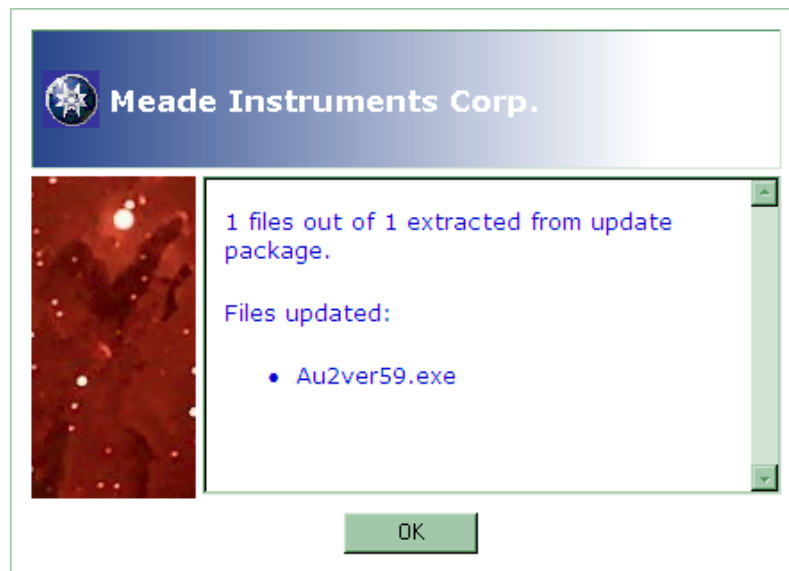


## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE



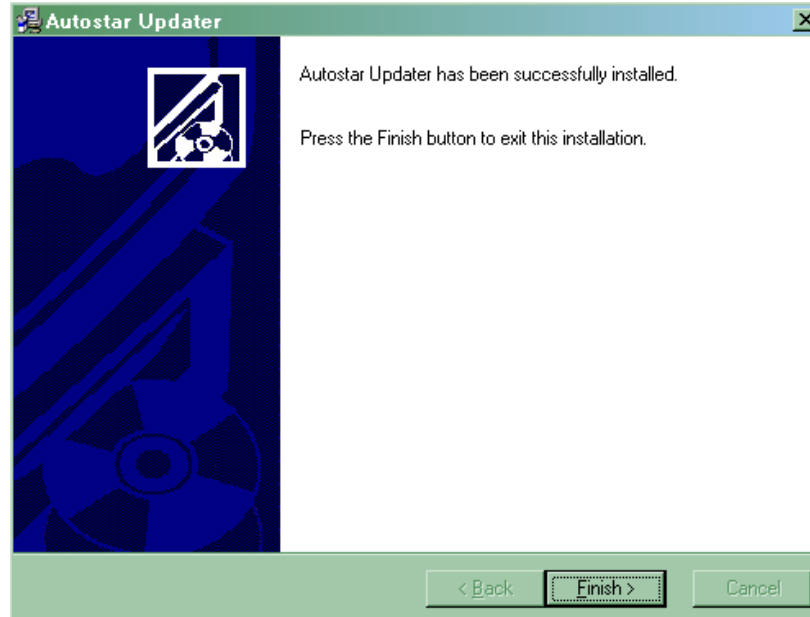
1.5.5.

The current ASU will close and download an update over the Internet. Press “OK” to continue.



1.5.6.

Press “OK” to continue.



1.5.7.

The new ASU has been updated successfully when this message is displayed.

### 1.6. TROUBLESHOOTING TIPS

#### 1.6.1. Autostar Suite DVD

1.6.1.1. If your PC does not support DVDs, you will not be able to load the Autostar Suite DVD. The Autostar Suite and Autostar Updater are available for Internet download at:

<http://www.meade.com/support/downloads.html>

#### 1.6.2. Autostar Updater

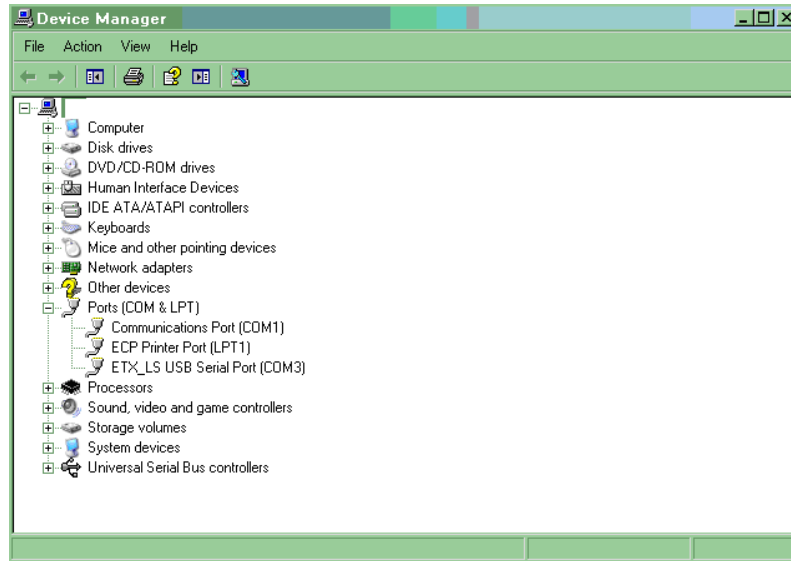
1.6.2.1. If Autostar Updater has been uninstalled and reinstalled on the same PC, it may not look for new software updates. Delete the C:\WINDOWS\WebUpdateSvc4.INI file to restore normal operation.

1.6.2.2. The C:\WINDOWS\WebUpdateSvc4.INI file can be deleted to reset the Autostar Updater to original conditions (new installation). A new file will be created when Autostar Updater runs.





### 1.6.3. USB Com Ports



#### 1.6.3.1.

The COM port that the LS USB Serial Port is connected to may be determined by running the Windows Device Manager from Start > Control Panel > System > Hardware > Device Manager. Refer to the Ports listed.

1.6.3.1.1. The LS USB Serial Port will only be indicated if the LS telescope is connected and powered on.

1.6.3.1.2. The LS telescope driver can be uninstalled by right-clicking on the LS USB Serial Port and selecting “Uninstall”. Reinstall the LS telescope by reconnecting via USB to the PC.

1.6.3.2. If all of the PC COM port configurations are not healthy (“?” displayed in Device Manager), especially devices like Bluetooth headsets and MODEMs, the ASU may cause a “device driver” error. Devices which are not operating correctly must be uninstalled.

### 1.6.4. PC Internet connection

1.6.4.1. If there is no apparent response when pressing the “Check WWW for latest version” button, there may be a problem with the PC connection to the Internet. Rebooting the PC will close active connections and reset the network settings. After confirming you can

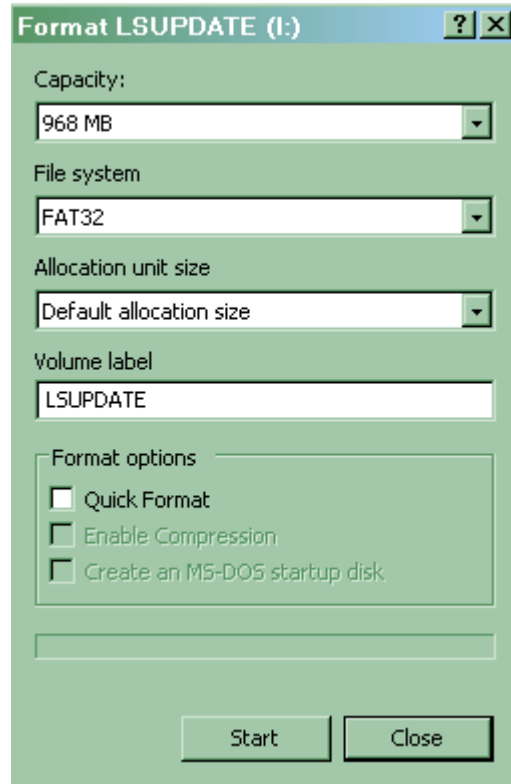


## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE

---

view the [www.meade.com](http://www.meade.com) website, run Autostar Updater (ASU) to continue.

### 1.6.5. Mini SD Card



#### 1.6.5.1.

Many original mini SD Cards are originally formatted “FAT”. For the LS telescope, the mini SD Card must be formatted “FAT32” with a non-blank volume label (e.g. “LSUPDATE”).

#### 1.6.5.2.

The mini SD Card may not operate correctly in the LS telescope if it was formatted “FAT32” with Windows 2000; Windows XP (or later) is recommended.

### 1.6.6. Dark calibration

#### 1.6.6.1.

This calibration maximizes the Eclips Module camera’s night vision.

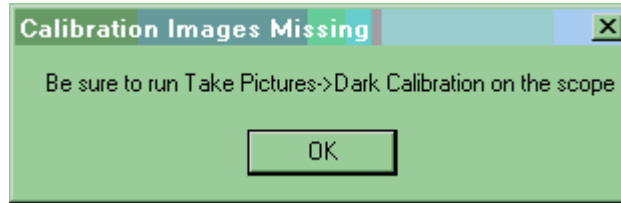
#### 1.6.6.2.

A dark frame calibration of the Eclips Module camera may improve telescope alignment performance after a software update via USB cable.



## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE

---



- 1.6.6.2.1. This calibration is highly recommended if the Autostar Updater displayed the “Calibration Images Missing” advisory during the software update.
- 1.6.6.3. To update the dark calibration, at any time of the day, perform the following steps:
  - 1.6.6.3.1. Setup your LS telescope and power on.
  - 1.6.6.3.2. Using the handbox, go to Select Item > Take Picture > Dark Calibration.
  - 1.6.6.3.3. Remove the Eclips Module camera cover.
  - 1.6.6.3.4. Press ENTER.
  - 1.6.6.3.5. The telescope will take two (2) quick camera exposures of the surrounding environment (do not cover the camera lens).
  - 1.6.6.3.6. Replace the Eclips Module camera cover over the camera lens; no light should be visible to the camera.
  - 1.6.6.3.7. Press ENTER.
  - 1.6.6.3.8. The telescope will display “Calculating...” and process a longer (~15-second) exposure; ensure the camera cover remains in place for this step.
  - 1.6.6.3.9. When finished, the telescope will return to the Take Picture > Dark Calibration menu.
  - 1.6.6.3.10. Press BACK two (2) times to return to the top menu.
- 1.6.6.4. The dark calibration will be saved in the telescope until the next software update.



## ASU SOFTWARE UPDATE INSTRUCTIONS - LS TELESCOPE

### 1.7. TABLE OF CONTENTS

1.	Updating LS telescope application software.....	1
1.1.	Update LS via USB .....	1
1.2.	Update LS via mini SD Card .....	6
1.3.	Autostar Suite.....	9
1.4.	Install USB driver .....	10
1.5.	Autostar Updater (ASU) .....	13
1.6.	Troubleshooting tips.....	16
1.7.	Table of contents.....	20

\*\*\* End \*\*\*