

# **PANTHER** |

**Telescope Mount *TTS-160***

# **MAMMOTH** |

**Telescope Mount *TTS-300***



## **Manual for updating the internal firmware**

## Contents

Introduction .....	3
Needed equipment.....	3
The updating process steps .....	3
Save updating software on the PC.....	3
Install USB-serial dongle.....	4
Run updating software and install the new firmware .....	5

# Introduction

The telescope mounts from Track The Stars are constructed to allow simple and fast updating of the internal firmware. This document describes the updating procedure using a windows PC (Mac IOS, Linux is also available, please contact us).

## Needed equipment

To perform the updating you will need:

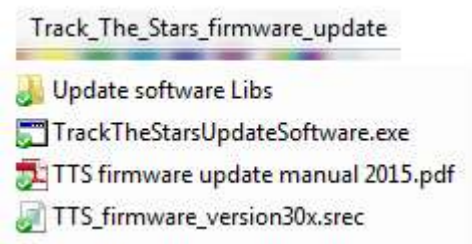
- A PC running windows XP, windows 2000, Windows 7 or Windows 8
- A serial port connection (RS232). This can be achieved with a USB-serial dongle available in computer stores.
- The PC connection cable.
- Mount and battery power.

## The updating process steps

1. Save updating software on the PC
2. Install the USB-Serial dongle and verify installation
3. Run updating software and install new firmware

## Save updating software on the PC

1. Open the email from Track The Stars with the updating information
2. Follow the link to download the program file: TTSfirmware.exe
3. Run the file to extract the following files:
  - "TrackTheStarsUpdateSoftware.exe" – the update application
  - Folder: "Update software libs" – this folder contains 3 DLL files.
  - "TTS update release xxx.srec" – the firmware to be uploaded
  - TTS firmware update manual
4. Select a folder where it can be found again.



## Install USB-serial dongle

1. Install USB-Serial dongle as described by the manufacturer
2. Start the "Track The Stars update software" by double clicking on the exe file.



3. Click on the Com port roll down window (number 1) and verify that the new com port is available. As an extra check try to unplug the dongle and see that the port number disappears.



## Run updating software and install the new firmware

1. Connect the mount and the PC with the PC cable (through dongle if used).
2. Prepare power connection to the mount, but secure that the mount is switched off.
3. Start the program "TrackTheStarsUpdateSoftware" by double clicking on the exe file.
4. Select the *Com port*



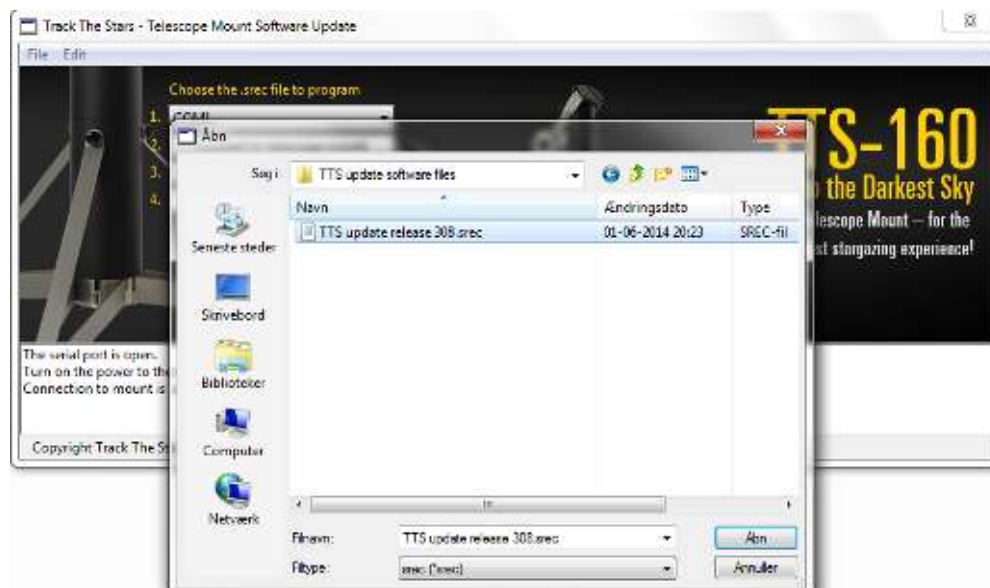
5. Press *Connect to telescope mount*  
The serial port is now opened.



6. Power up the mount  
When powered up the connection between PC and mount is established



7. Press *Open file to program*  
Navigate to the folder where the file received via email is saved. Select the file and press *Open*.



If the correct file is opened the message "File OK" will be displayed next to the "*Open file to program*" button. The release number will be shown in the status window in the bottom of the screen.





8. Press “Program” to start the update  
The green bar will show the progress.



A message is shown at the bottom of the screen when the update is completed.



9. Restart the mount firmware  
Switch the mount power off and on again to restart the new firmware.  
First startup can take several seconds.

10. Update factory settings  
Before you start using the mount it is necessary to update the factory settings.

On the hand-pad select:

- *Main Menu*
- *Setup Menu*
- *Factory settings*
- Press *yes* to confirm you want to reset to factory settings.

Note that this will reset you stored Observation Locations. These has to be input again.

11. The update is completed and the mount is ready for use with the new improved firmware.

If you have any questions please email [support@trackthestars.com](mailto:support@trackthestars.com)