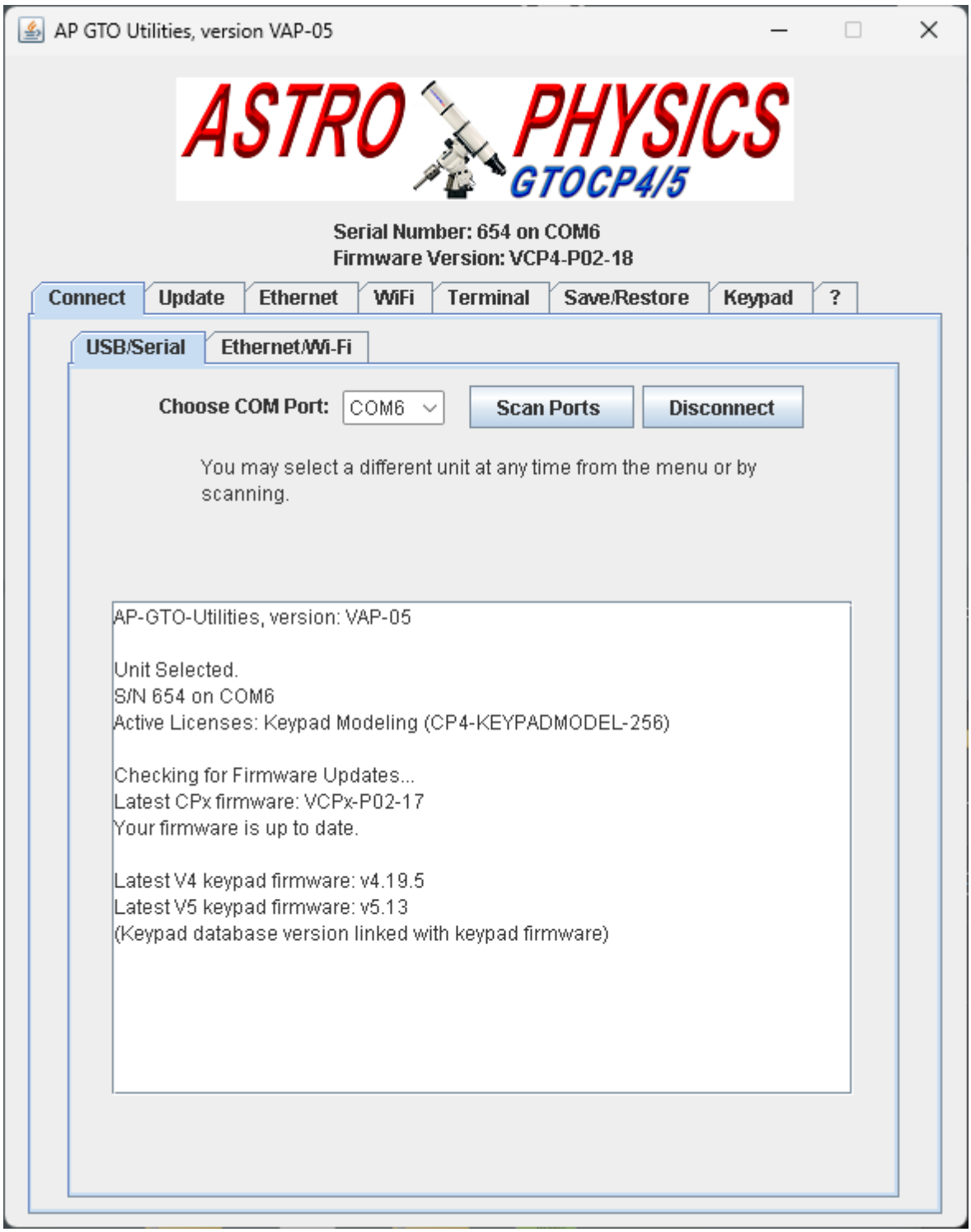
Astro-Physics
AP GTO Utilities

Version 5.0



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Overview

The AP GTO Utilities is an all-in-one application for managing your GTO Control Box (from here on out referred to as "Control Box"). It replaces and extends the previous AP USB/Serial Utilities app and provides the following features and benefits:

1. Review the current status and firmware version of your Control Box.
2. One-button auto update of your Control Box firmware.
3. Review and change Ethernet and Wi-Fi network settings.
4. Use a command terminal interface to send commands and see results.
5. Save/Restore your Control Box settings when changing Control Boxes or replacing components.
6. Update your keypad firmware and database.
7. Update your control box personality.
8. Runs on Windows, Mac, Linux.
9. Can be connected using USB or Ethernet*.

**Ethernet can be used to update firmware starting with firmware version P02-16 or later installed on your Control Box*

The GTO Utilities offers the most flexibility and features for the CP4, 5, and 6 control boxes.

Using the AP GTO Utilities with CP3 and earlier Control Boxes

The AP GTO Utilities can be used with CP1, CP2, and CP3 Control Boxes, but are limited to the following features:

1. Terminal to send commands and view responses.
2. Save/Restore Control Box Settings.
3. Update keypad (when feature becomes available0.

In addition, the app will not show a serial number for CP3, but it will show the Firmware Version:

CP1 and CP2 control boxes must have firmware with at least rev D.

Using the AP GTO Utilities with the 1150GTO

The AP GTO Utilities must be version 5 or later for use with the 1150GTO mount.

Before you get started: Prerequisites

Before using the AP GTO Utilities app (especially for the first time), there are some things you need to get your computer ready. It's possible you may have already done many of these things but it's a good idea to review these items prior to starting:

1. *Mount connection and night skies not required*

AP GTO Utilities is a general maintenance and settings utility for your Control Box. For many if not all of the app's functions, you do not need your mount axes connected to your Control Box: You can perform maintenance tasks during the daytime using this utility.

2. *Disconnect Control Box from APCC/ASCOM*

When using the AP GTO Utilities app, we recommend you disconnect your Control Box from all applications including APCC and ASCOM V2 driver. Some functions can reboot or re-initialize the Control Box which can cause unexpected results or errors.

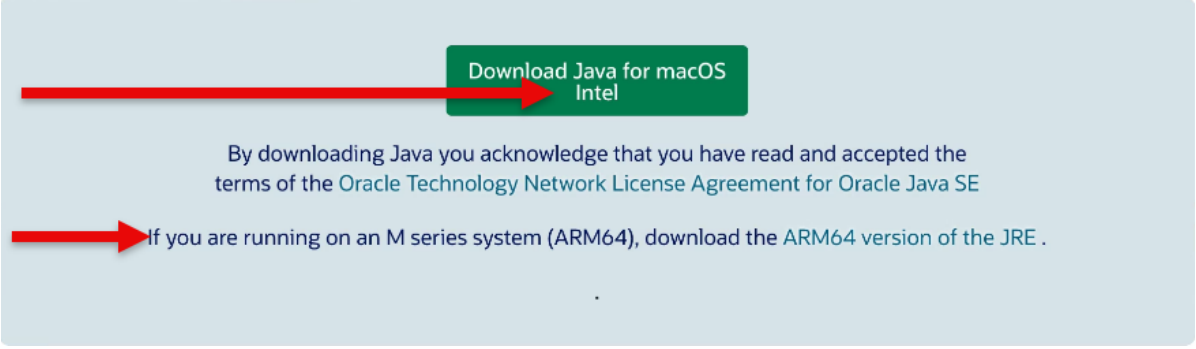
3. *Install Java Platform*

AP GTO Utilities app can be used on any operating system that can run Java. We have tested it on Windows, Mac OS, and Linux. To use the app, you must first install the latest Java Platform. **Note: you may already have Java Platform installed. If so, you do not need to install it again.**

Download Java from www.java.com and run the installer. Installation takes just a few clicks. Be sure to use the latest version for your operating system.

Special Note on installing Java for Mac OS

There are several versions of Java for Mac OS, depending on the OS version and type of processor (Intel or Apple M series). Make sure you ready carefully and select the appropriate version of Java for your computer. Just clicking the defaults may not be the right choice for your Mac!



4. *Install any required USB or serial port drivers*

If you have already connected your computer to your Control Box, you likely already have installed the required drivers to connect. Just in case, any required serial/USB drivers should be installed BEFORE making the initial connection between the computer and the CP4/5.

- *FTDI Drivers for using the USB port on the CP4/5.* If you wish to connect your CP4/5 via USB, you must have the FTDI driver installed on your computer. Download links for the FTDI driver can be found at www.astro-physics.com/software-updates .

- *Keyspan USB-Serial adapter for CP serial port.* If you are using the DB-9 style serial port be sure the Keyspan driver is installed.

5. *Internet access for automated firmware updates*

In order to use the automated firmware updater, your computer must be connected to the Internet. (Other functions such as adjusting Ethernet/Wi-Fi settings or using the Terminal do not require Internet connection)

Installing and Launching the AP GTO Utilities App

If you don't already have the AP GTO Utilities App, the latest version is always available for download at https://www.astro-physics.com/software-updates/#Utilities

Windows

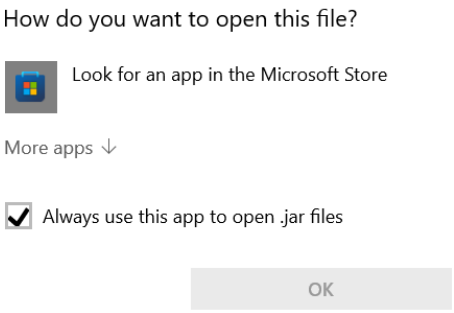
On Windows, download the jar file save it to a convenient location.

Next, navigate to the file location, find the **AP_GTO_Utilities.jar** file. This is the application.

Double click the to run the AP GTO Utilities program.

Note: 'How do you want to open this file?' Windows error

If you doubleclick the AP_GTO_Utilities.jar file and you receive a 'How do you want to open this file?' warning, that usually indicates Java is not installed on your computer. Make sure to visit java.com and install the platform for your system and then try launching the application again.



Mac OS

(Note: Make sure you are up to date on your operating system version.)

On Mac, download the .jar file.

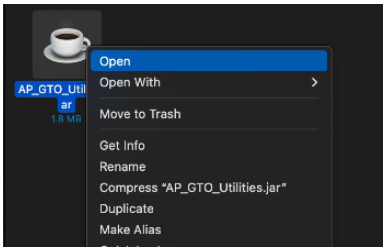
When you launch the app for the first time, you will need to follow the steps below:

1. In the Finder on your Mac, locate the AP_GTO_Utilities.jar. By default it's saved to your Downloads folder.

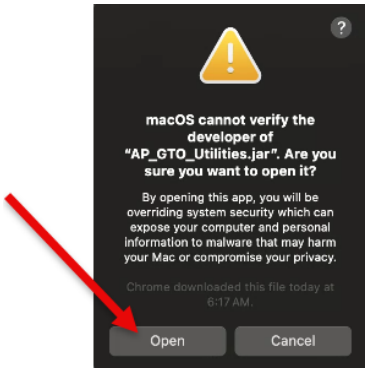
2. Don't use Launchpad to do this. Launchpad doesn't allow you to access the shortcut menu.

3. Right-click the app icon and choose Open from the pop-up menu (depending on your Mac version and hardware, ‘right-click’ can be accomplished via right-click on a two-button mouse, two-finger click on a trackpad, or holding down Control-key while clicking on a single-button mouse.)

4. Click Open.



Finally, confirm you wish to override security settings and open the app:

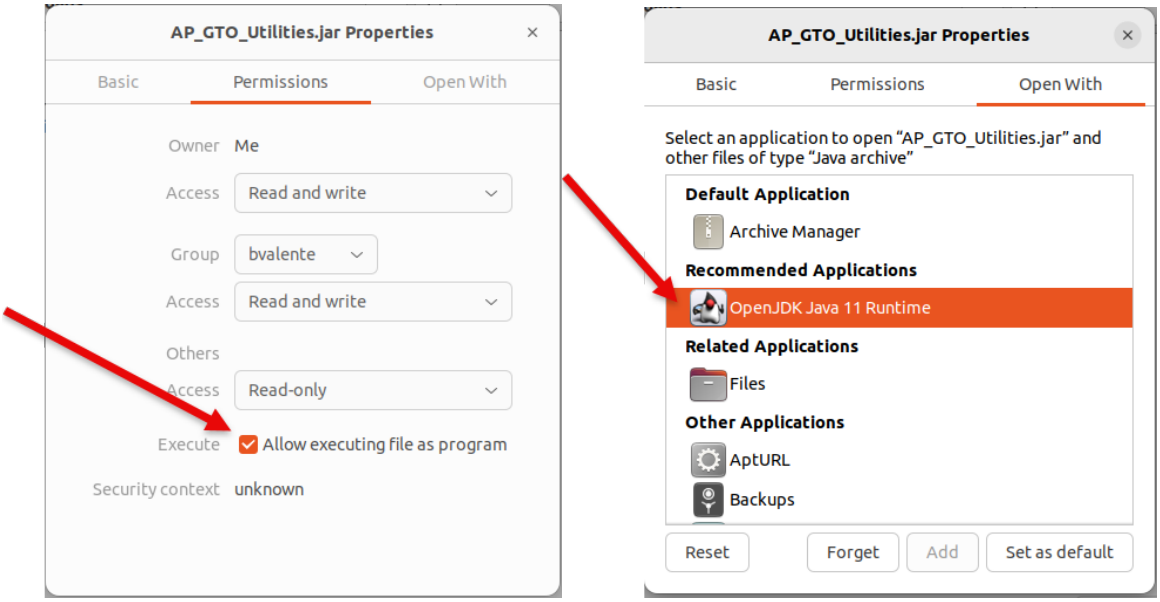


5. The app will launch, and is now saved as an exception to your security settings. From now on, you can simply double-click the app to launch it as you normally would for any Mac application.

Linux

On Linux, download the program jar file.

You will likely need to open the AP_GTO_Utilities.jar file properties and check “Allow Execution”. You may also need to set the default “Open With” to the Java runtime, both shown below:



Note: If this is the first time using a USB serial port on this machine, don't forget to add your username to the "dialout" group and restart the computer. This command will be similar to `Sudo usermod -a -G dialout [username]`

Next, open Terminal and type **sudo java -jar AP_GTO_Utilities.jar** to run the program, as shown in the screenshot. Enter your password if needed. (Note: the keypad loader must be run as root to have access to the serial ports.)

Mac and Linux command line alternative for launching the app

If the program does not open by the methods listed above, you may need to run it from the command line.

For Mac, open Terminal, then proceed to the folder that holds the .jar file with the cd command. Then, type:

```
/usr/libexec/java_home'/bin/java -jar AP_GTO_Utilities.jar
```

The program should run.

For Linux, open Terminal, navigate to the folder that holds the .jar file with cd command, then type

```
sudo java -jar AP_GTO_Utilities.jar
```

Troubleshooting installations

If things are not working correctly, there are a few general things you can check and try:

- Make sure have the latest updates for your OS installed.
- Make sure the version of Java you have installed is correct for your hardware and operating system.
- Check the PATH is set properly for Java, or add it. https://www.java.com/en/download/help/path.html
- In some cases when it seems nothing will launch the app, try installing on a different computer.

Alternative download using .zip file

We chose to offer the AP GTO Utilities as a downloadable .jar file so it can be installed and run with minimal effort. It's possible some computer's security or anti-virus settings prevent the download of .jar files. In this case we also offer a .zip compressed archive file for download. It is identical to the .jar file, it is just downloaded as a zip file. If you use the .zip file download you will need to be familiar with unzipping the file and locating it for launching. Please see the download links at https://www.astro-physics.com/software-updates/#Utilities.

Connecting to your GTOCP Control Box

When you first launch the AP GTO Utilities, it will look like the screen below:

Note that "No Unit Select" is shown at the top of the window, indicating there is no Control Box connected. When you connect your Control Box, this will update with your Control Box serial number and installed firmware version.

Connect to your Control Box

Make sure the Connect tab is selected.

You can choose the connection type (USB/Serial or Ethernet/Wi-Fi) by selecting the appropriate sub-tab.

USB/Serial provides options to connect to the Control Box via USB or RS232 ports (you must have the appropriate drivers installed, as detailed in Prerequisites above.)

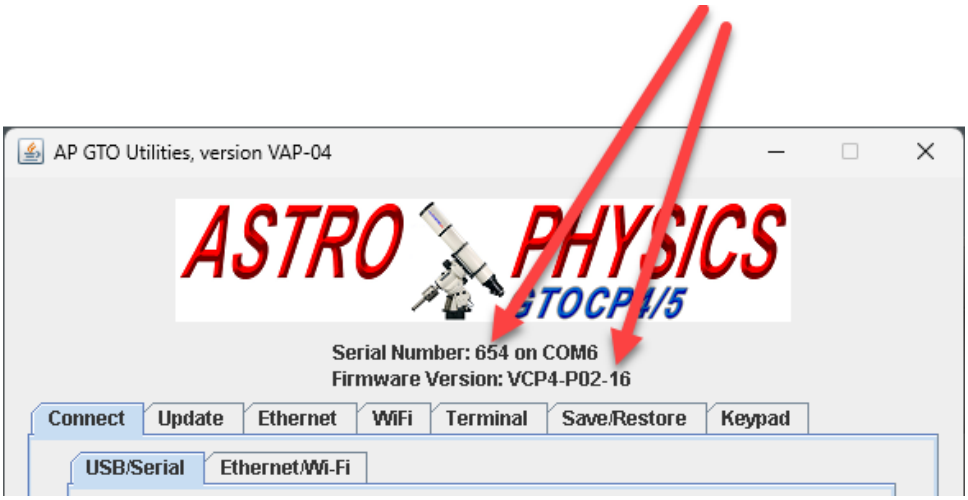
Ethernet/Wi-Fi provides options to connect to the Control Box via Ethernet cable or via Wi-Fi, provided your Control Box is properly configured and available.

NOTE: Limitations of Ethernet/Wi-Fi for Firmware Updates

Updating firmware via Ethernet/WI-Fi is available only on Control Boxes with firmware version P02-16 or later. If your Control Box has an earlier firmware version and you are connected via Ethernet or Wi-Fi, updating firmware will be disabled

You can type in the IP address or hostname of your Control Box if you know it, or you can click Find button to search for all available Control Boxes on your network. If one Control Box is found, it will connect to it. If more than one Control Box is found, it will give you a list of Control Boxes you can choose from.

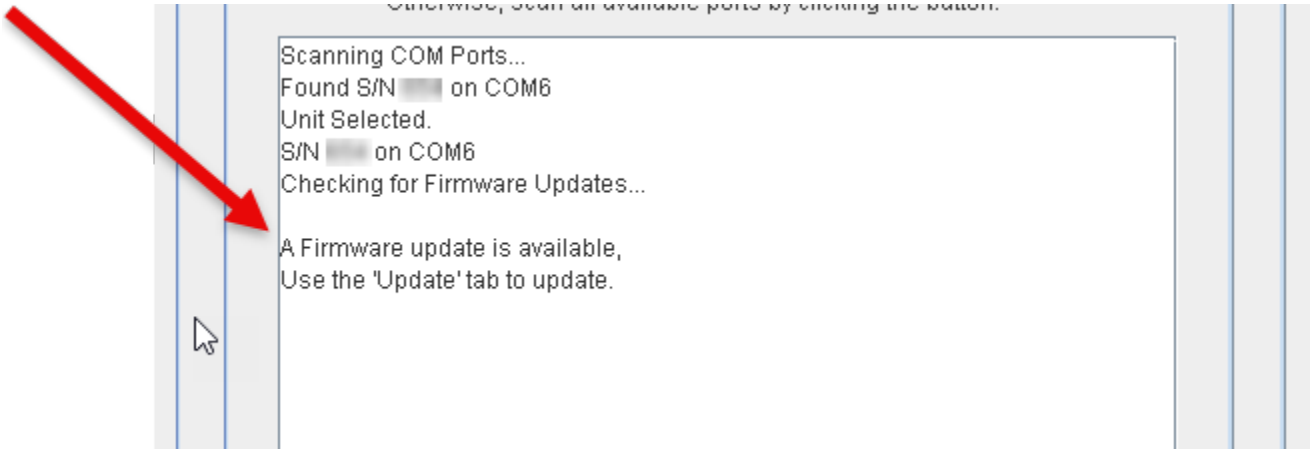
Once your Control Box is connected, the app shows your serial number and installed firmware version at the top of the screen.



Updating Your Control Box Firmware

When the connection is established to the CP4/5, the AP GTO Utilities will automatically check for available firmware updates. You will receive a message on the current versions of all available firmware, including the keypad. Please note there is no separately upgradeable version of the keypad database: It is linked with the keypad firmware version.

When a new firmware version is available, you may see a message indicating that a firmware update is available. You can use the Update tab to automatically update your Control Box from the Internet.

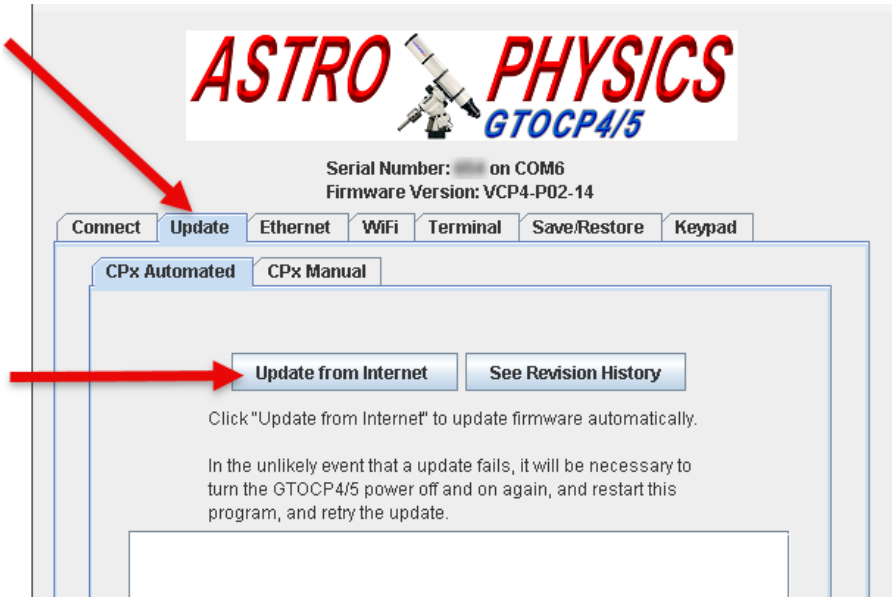


CPx Automated: Automatic Firmware Update from Internet

The Update tab has two sub-tabs: CPx Automated is the primary and preferred method of updating your firmware.

Make sur CPx Automated tab is selected. If you wish to review changes made to the firmware, you can click See Revision History to view the details.

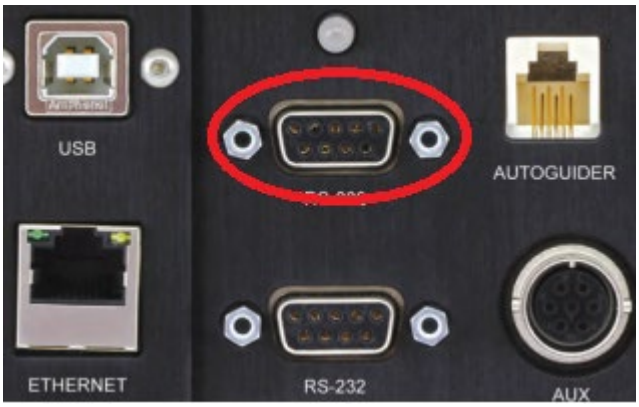
When you're ready, click the Update from Internet button to update the CP4/5 automatically and let the application run to complete the update.



During this time, do not interrupt the Control Box connection or power down the Control Box. This includes disconnecting the USB or serial cable, as well as attempting to do other tasks with the computer at the same time as performing the update. When the update is finished and successful, you will see an updated firmware version at the top of the screen.

NOTE: Upgrading firmware from P01-13 and earlier

If your Control Box has firmware version P01-13 or earlier and you wish to upgrade the firmware, you must do so by connecting to the upper RS-232 (COM) port as shown below:



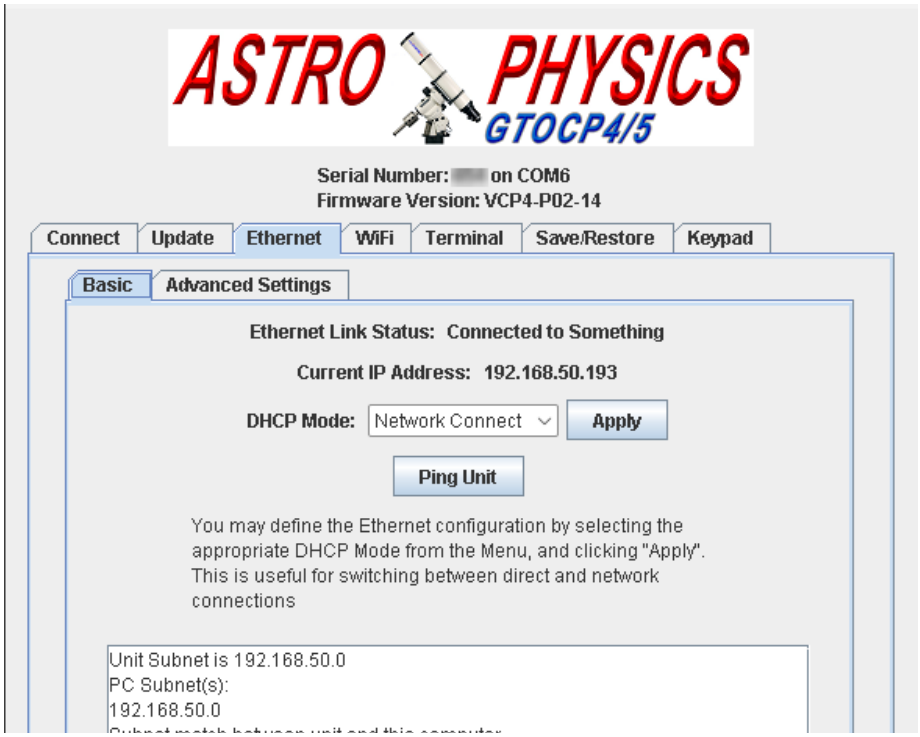
Upgrades FROM P01-13 and earlier cannot be done through the USB or the lower serial port. If you are upgrading from P01-13 or earlier, a dialog box will ask you to confirm that you are using the upper RS-232 (COM) port.

Reviewing/Updating your Control Box Ethernet Settings

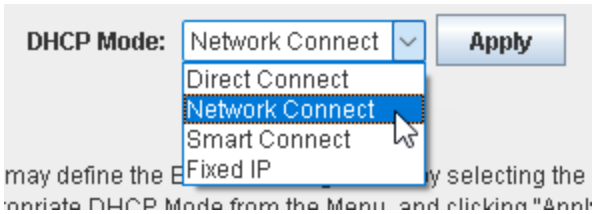
AP GTO Utilities enables you to easily view and change your Ethernet connection options of the CP4 or CP5.

Ethernet Basic Sub-Tab

Switching to the Ethernet tab displays the Basic sub-tab, with the current Ethernet link status of the CP4 or CP5, as well as the current used IP address and DHCP mode of your Control Box: These are the most needed things when troubleshooting network issues. The text box on the bottom logs computer Ethernet activity.



The **DHCP Mode** options can be used to change how your Control Box works on a network when attached to an Ethernet cable. Selecting a Mode from the drop-down also shows a short description of the selected Mode



DHCP Modes Description:

Direct Connect: Use this when you connect your computer to your Control Box directly with an Ethernet Cable (Technically this puts the Control Box in DHCP Server mode and provides an IP address for your computer. The Control Box uses the IP address specified in the Advanced Settings tab.)

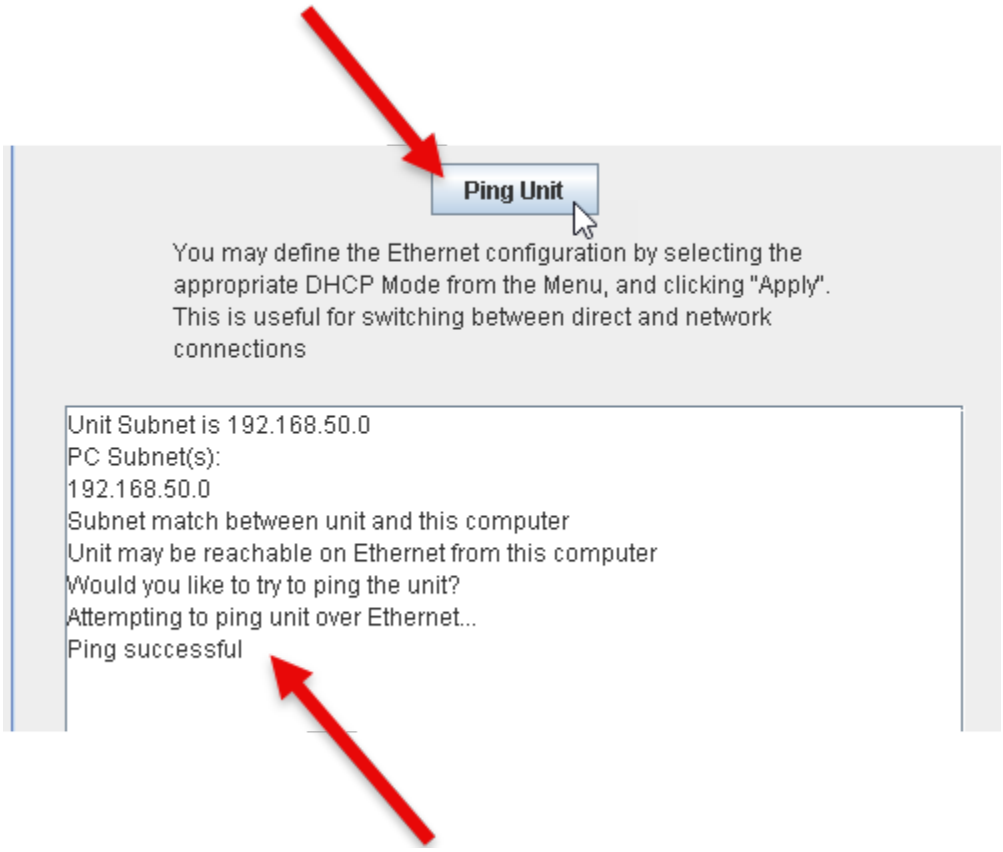
Network Connect: Use this when you have a router on your network, and you connect both your computer and the Control Box to the router. (Technically this puts the Control Box in DHCP Client mode and expects to receive its IP address from the attached router).

Smart Connect: If you aren't sure which connection type you have, Smart Connect will attempt to determine which mode and select as appropriate (Technically it first puts the Control Box in DHCP Client mode and waits for an IP address assignment from the router. If this times out, it will switch to DHCP Server mode and be available to provide IP address to your computer. In DHCP server mode the Control Box uses the IP address specific in the Advanced Settings tab).

Fixed IP (Advanced Users): The allows you to set a fixed IP address for your Control Box, which is specified in the Advanced Settings Sub-Tab.

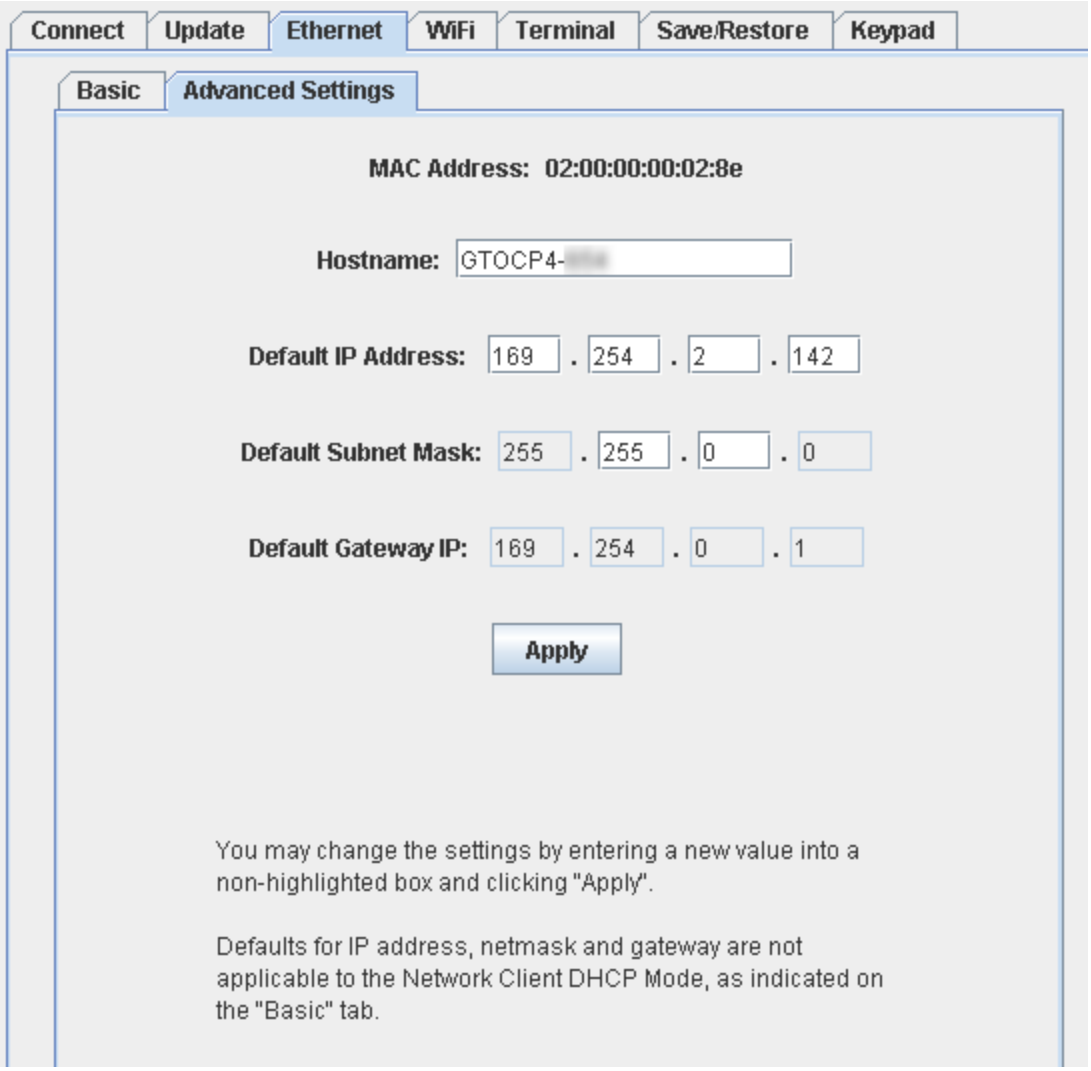
Once you have selected the desired DHCP Mode, click Apply button to make the change.

The **Ping Unit** button will attempt to ping the CP4 or CP5 over Ethernet. If connected to a network, the Ping button will allow you to verify that you can communicate with the CP4/5. **Note:** ping will only work if the computer and CP4/5 are connected over the same network.



Ethernet Advanced Settings Sub-Tab

Selecting the **Advanced Settings** tab enables you to access more Ethernet options.



Hostname is the recognized name of the CP4 or CP5 while connected by Ethernet and is a permanently accessible device name for when DHCP is assigning new IP addresses to the CP4/5 regularly. You can also change the **Default IP Address** here, which is how the CP4 or CP5 is identified on a fixed IP address network. Most commonly, this is how the CP4 or CP5 will be addressed while directly connected to a computer with an Ethernet cable. **Subnet Mask** can be slightly modified as well. The D**efault Gateway IP** are also displayed for convenience.

CAUTION When changing your Ethernet settings

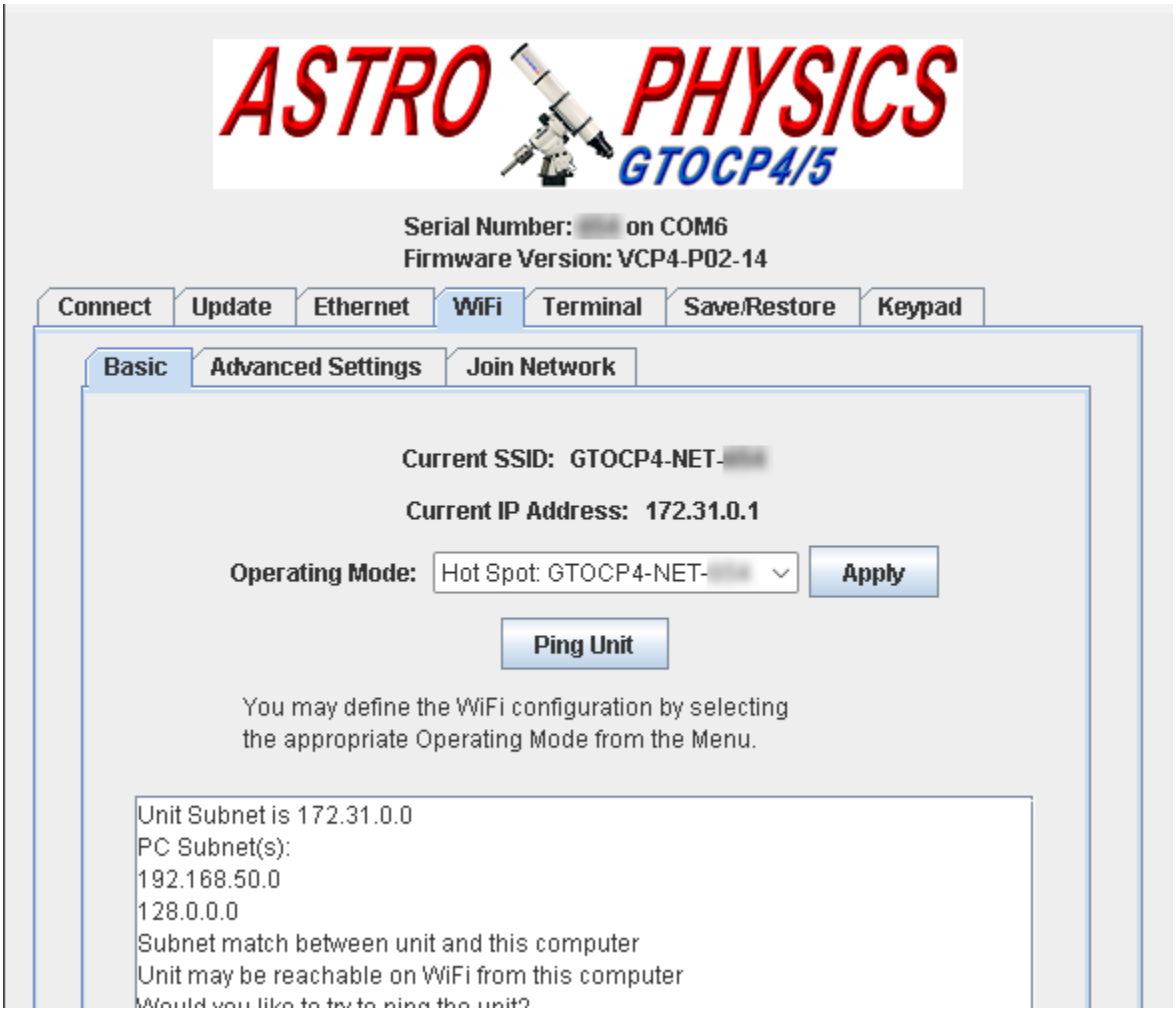
Use caution and common sense when adjusting your Ethernet settings. Making changes without understanding how the DHCP modes work can render your Control Box unreachable.

Reviewing/Updating Your Control Box Wi-Fi Settings

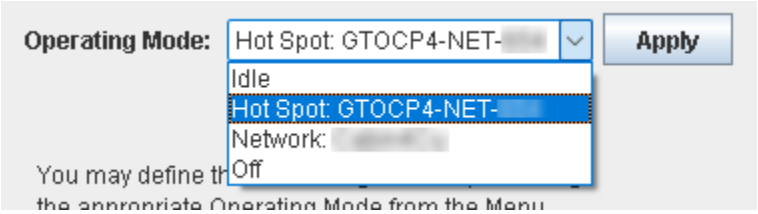
The Wi-Fi tab enables you to review and change the wireless (Wi-Fi) settings of your Control Box.

Wi-Fi Basic Sub-Tab

The Basic tab shows your Control Box's current SSID (connected network), current IP Address, and Operating Mode.



The **Operating Mode** can be changed by selecting between *Idle, Hot Spot, Network, and Off* in the dropdown menu.



Wi-Fi Operating Modes:

HotSpot: [network name]: Enables the Control Box to become a hot spot so you can connect to the Control Box and access it via mobile device, computer, etc. The [network name] defaults to the Control Box model and serial number. For example a GTOCP4 with a serial number of 123 would default to GTOCP4-NET-123. This network is

advertised and will show when other devices look for available Wi-Fi networks. This is a popular option when using a mobile device planetarium app to control your mount in the field.

Network: Your Control Box becomes a Wi-Fi client to an existing network, and if connected will show the network name here.

Off: radio is turned off and Wi-Fi is disabled.

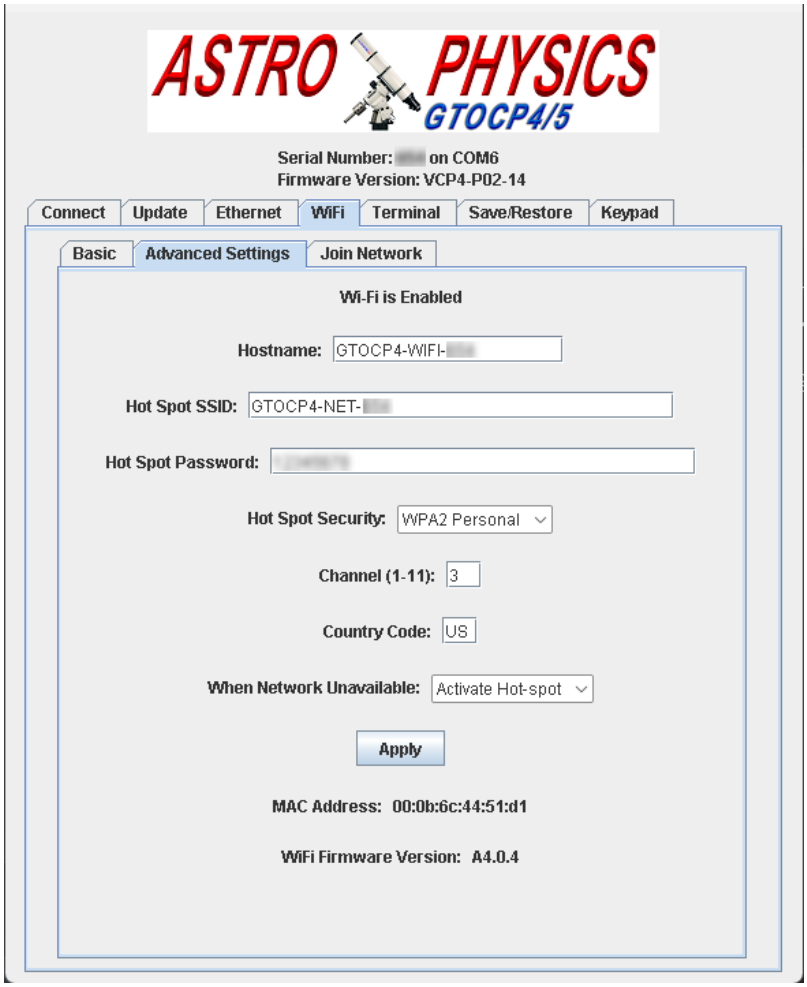
Idle: Neither HotSpot nor Network are enabled, but the radio remains on. You can scan for networks to join, but no network is auto-joined.

Once you have chosen the desired Operating Mode, click Apply button to make the change.

The **Ping Unit** button will attempt to ping the CP4 or CP5 over Wi-Fi. If connected to a network, the Ping button will allow you to verify that you can communicate with the CP4/5 Wi-Fi. Note: ping will only work if the computer and CP4/5 are connected over the same hotspot/network.

Wi-Fi Advanced Sub-Tab

The Advanced Settings sub-tab allows you to see and set various advanced Wi-Fi parameters. This should only be used and updated by owners knowledgeable and confident in their networking skills.



Hostname: Name of the Control Box on the network.

Host Spot SSID: The network name of the Control Box when it is in Hot Spot Operating Mode.

Hot Spot Password: The password required for any device connecting to the Control Box's Hot Spot.

Hot Spot Security: Specify the encryption type for protecting login credentials.

Channel (1-11): choose wireless channel (Note: in some Control Boxes the channel is auto-selected and this option is not available).

Country Code: set country code.

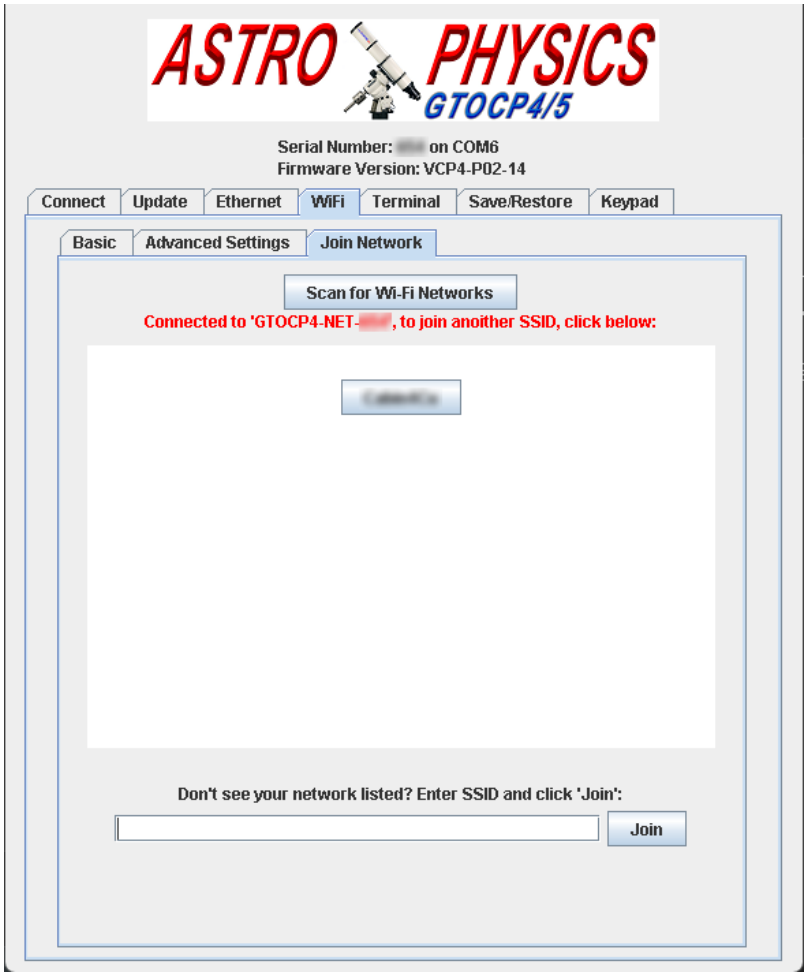
When Network Unavailable: When connecting to a Network, Define what happens when the Network is unavailable: Activate the Hot Spot, Idle indefinitely, or Retry the network indefinitely.

Once you have made any desired changes, click Apply to update your Control Box.

Mac Address and Wi-Fi firmware versions are provided for troubleshooting/diagnostics.

Join Network Sub-Tab

If you have selected Network as your Control Box's Wi-Fi operating mode, you can use the functions in this tab to scan for and connect to available Wi-Fi networks. All Wi-Fi capable Control Boxes can connect to 2.4ghz networks, and some Control Box revisions may also connect to 5ghz networks.



Scan for Wi-Fi Networks: scans for available Wi-Fi networks in range and displays results in the list below.

Click the button with the network's name to join that network. The app will prompt for any required password.

If you do not see your network ID listed (such as a hidden network), you can manually enter the network SSID and click Join. If found, you will be prompted for the required network password.

Terminal Tab: Sending Commands Directly to your Control Box

Terminal is used to directly send commands to the CP4 or CP5. New with version VAP-05 are buttons to initialize your mount and query the status of the mount.

Sending commands to the mount via Command Set 1, 2, 3

There are three text boxes for typing commands, so that commonly used commands can be easily reused. After typing a command in a text box, clicking the **Send** button beside the text box will send that command to the CP4/5. Responses from the CP4/5 are displayed in the large text box at the bottom of the window. **Note:** there is also a similar Terminal capability built into APCC.

The **Overwrite** option will have new responses from the CP4/5 overwrite older responses in the display text box. This helps to reduce the text in the responses area.

Clear Window will remove all text from the response area.

Initialize Mount Button

If the control box is in an un-initialized state, clicking **Initialize Mount** will initialize the control box. If the control box has already been initialized, this button will be disabled.

Note the mount does not have to be connected to the control box to initialize it. You will likely receive stalls or encoder errors. But probably most applicable when you have the CP connected to the mount

Initialize mount details: The Initialize Mount button sends the initialization command string below, giving the CPx a date and time, as well as an unpark command:

:SCxx/xx/xx#

:SLxx:xx:xx#

:PO#

Status Button

Clicking the Status Button will query the control box .Depending on the CP version will return differing levels of details

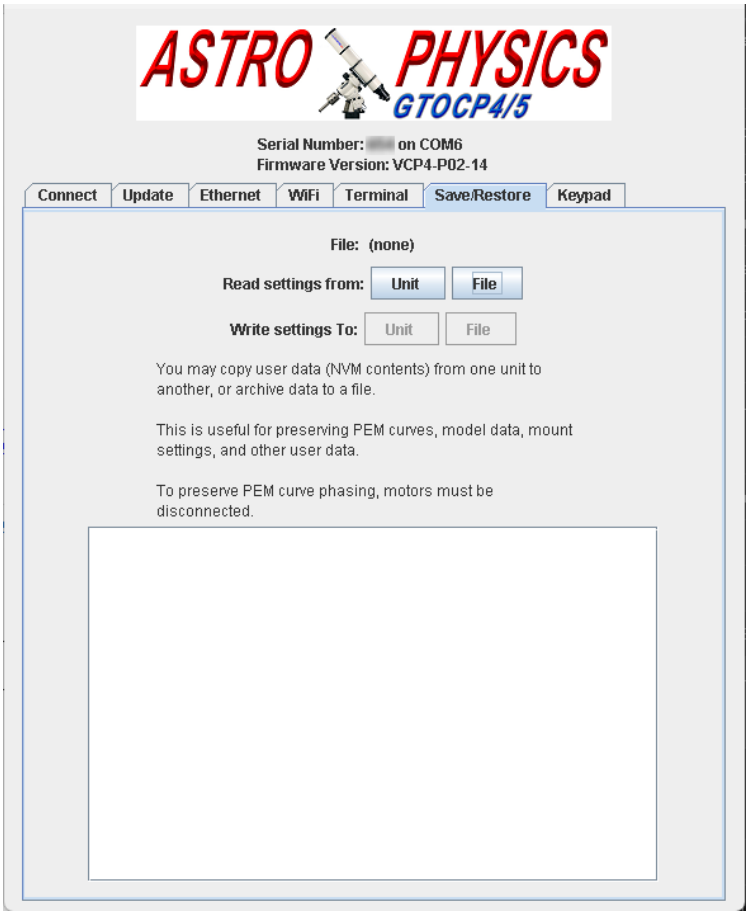
This is primarily used as a diagnostic feature when the mount is connected and shows a yellow light on the control box (i.e., stall) or if you see a "servo fault" in APCC's error window. Connecting to the mount and clicking this button will provide additional details on the stall.

Earlier versions of control boxes (CP3 or earlier) will not provide much additional detail if any. The primary value is for CP4, 5,and 6.

This is particularly useful feature for 1150GTO that will help pinpoint the issue.

Saving/Restoring your Control Box settings

The **Save/Restore** tab allows for reading and writing your Control Box's settings from the NVM (Non-Volatile Memory). When used with non-encoder mounts, it will read the PE curve from the unit. For encoder mounts it will read encoder settings and data. Keypad model databases are also read.



Note the following feature details:

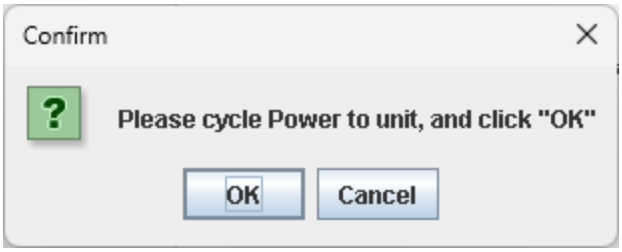
- If the PE curve is transferred from one CP4 to another (or from a CP3 to a CP4), the worm must remain stationary between reading the PE curve from one CP3/4 and writing the curve to the other CP3/44. It's also recommended to disconnect the motors to prevent accidental movement that would invalidate the PE curve.
- Do not transfer data between different Control Box models. For example, you cannot transfer settings from a CP4 to a CP5 or transfer CP5 to CP4.
- There are items that do not transfer within the settings: Unit serial numbers do not transfer, nor do network related items based on serial number (default IP address, SSID, MAC address, default passwords, etc.)

Note on Reading and Saving Settings:

Read buttons will load and temporarily store the Control Box settings in the App's working memory. You can then write those settings to a file or to another Control Box. If you are moving between Control Boxes and need to disconnect/reconnect the Control Boxes, it's a good idea to save the settings to a file before disconnecting.

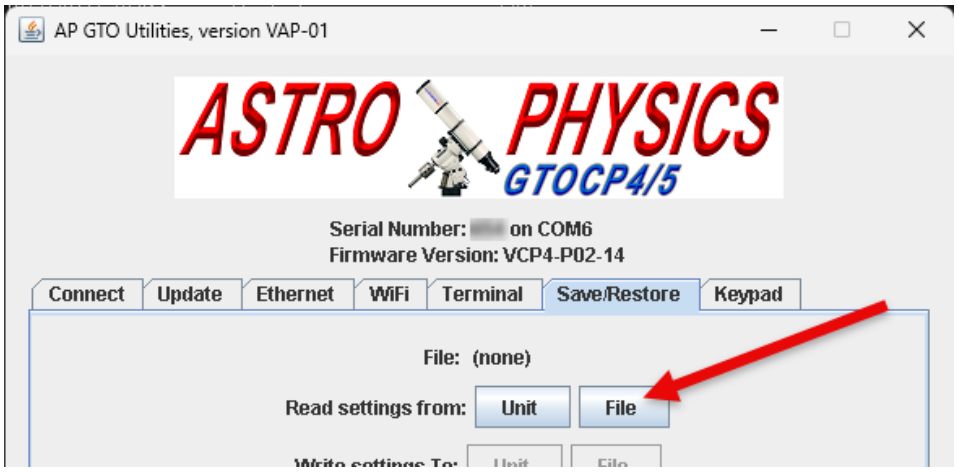
To read the settings from your Control Box, select the Read Settings from Unit

You will be prompted to power cycle the Control Box. This is necessary to preserve the correct index of the PE Curve. If you do not use periodic error (such as an Encoder mount) you can just click OK to proceed.



The app will read the data, displaying a loading bar for the data transfer progress. Please note this can take some time, especially with older models.

If you want to instead load settings from a file into App, select Read settings from File.

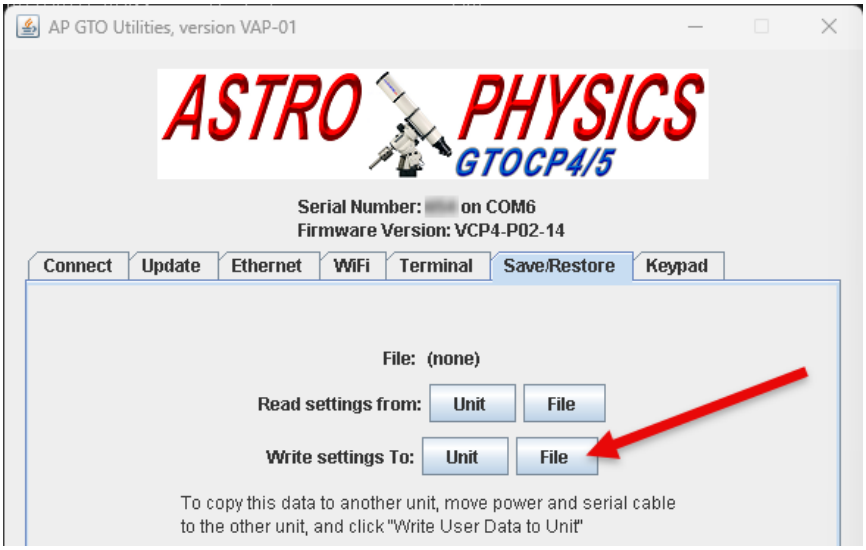


You will be prompted to select a file from the computer to read.

Once data is read and stored in the App's memory, you can write it to a Unit or File.

Write settings to: will write the NVM image (data) stored in App to either a permanent file or the NVM of a connected device. To send the stored NVM data to a CPx, click **Write Image to Unit** and a loading bar will display the load progress. To save the NVM data to a permanent file, click **Write Image to File** and give the file a path and name. Clicking **OK** will save the file.

If you wish to save your settings to a file, choose Write settings to File:

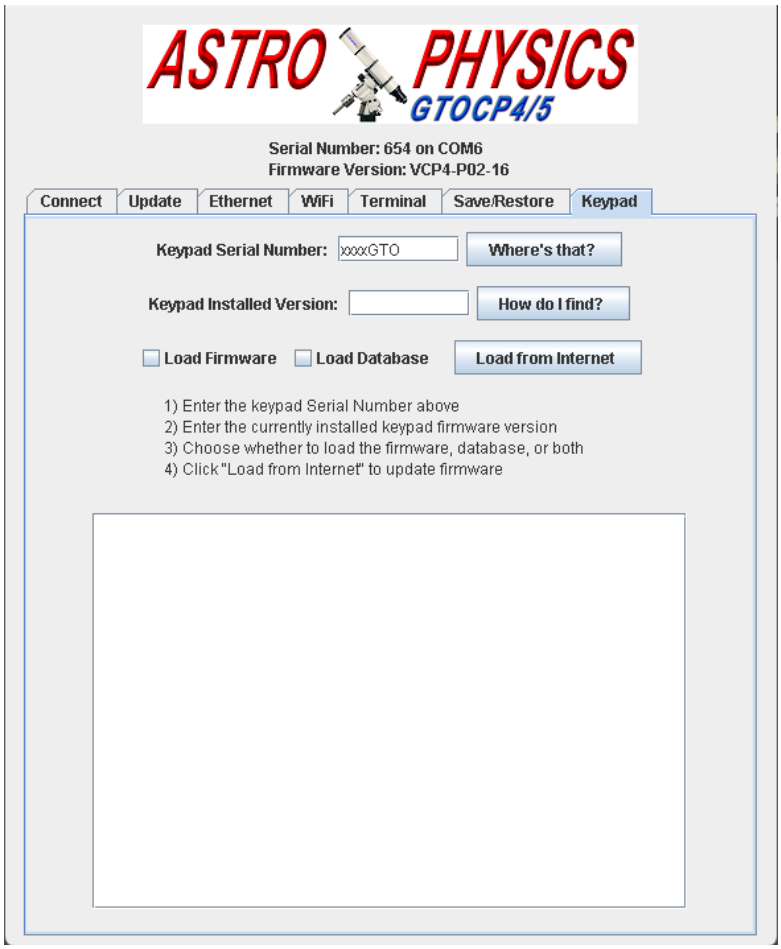


Programming your Keypad

Beginning with AP GTO Utilities version VAP-02, you can now program and/or update your V4 or V5 Keypad.

Specifically, you can:

- Update your keypad to the latest available firmware
- Load the keypad database
- Do both in the same session



Steps to Program your Keypad

The keypad update process is relatively straightforward. Once you have prepared for the update, the software will walk you through the steps to reset your keypad and prepare it for receiving the udpate.

1. You will need the following things before getting started:

    a. Make sure you set aside enough time to complete this process: It can take up to 2 hours to complete.

    b. Your computer must be connected to the Internet to download the update files.

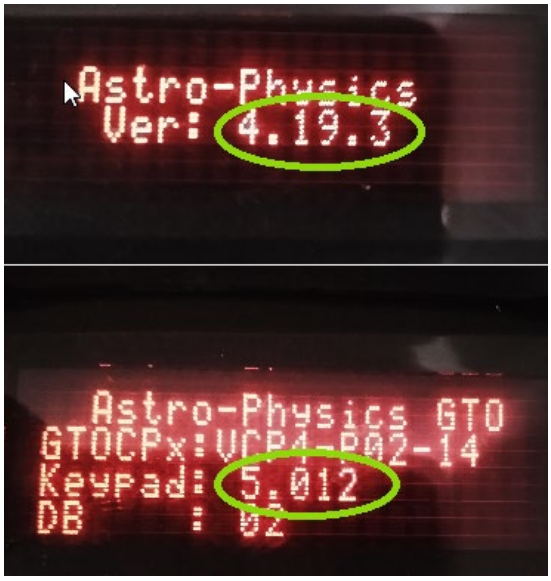
    c. Ensure your computer is configured to not go to sleep. This is configured in your computer's systems settings. You do not want the update process to be interrupted by your computer going to sleep or hibernate mode.

    d. Have your Control Box powered on and your keypad connected to the Control Box. The keypad should also be powered.

    e. Your Control Box must be connected to your computer via serial or USB. If you are using a serial connection, use the top serial port on the Control Box. Keypad updates cannot be updated with an Ethernet or WiFi connection at this time.

    f. Find your keypad serial number. This is located on the back of the keypad. Make sure you find the serial number and not the part number.

g. Your current installed version of keypad firmware. When you cycle power, the first screen will briefly display the keypad version, such as in these examples:



2. Determine which version of Keypad firmware you will update to.

Generally speaking, there are four typical update scenarios:

If you currently have	You will update Firmware to	Notes
v4 Keypad with serial number 1565 or earlier	v4.19.3 only	early keypads are limited to this version
v4 keypad with serial number higher than 1565	v4.19.5	
V4 keypad with serial number higher than 1565	v5.012	Physical keypad button layout is different between v4 and v5**
v5 keypad	v5.012	P01 minimum firmware++

** Physical v4 Keypad button layout is different than v5 and may present some confusion when operating. The options to address this are 1) factory-installed keypad button layout update, or 2) to affix your own labels to the changed keys.

++If your CP4 control box firmware is P01 or earlier, you must first update the control box firmware to a later version, and then update the keypad. CP1/2/3 do not support keypad v5

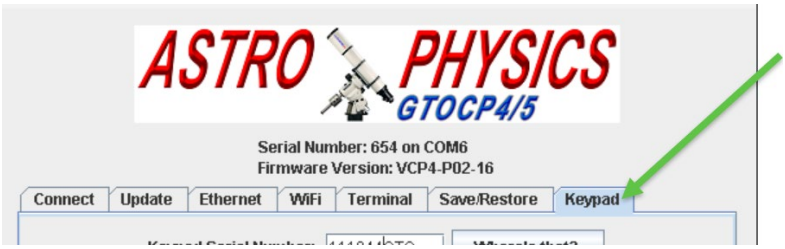
more details regarding keypad version differences and updating is covered here (this is the same link when clicking the “What’s the Difference?” button when choosing a version in the software)

https://astro-physics.info/tech_support/mounts/keypad/upgrading-older-keypads.pdf

If you are considering updating from v4 to v5, the above documentation is worth a read.

Note there is no choice of database version, this is handled for you.

3. Go to the Keypad tab:



4. Enter the keypad serial number and installed firmware version in the fields. The buttons next to each field are reminders on how to find this information (same as above steps).

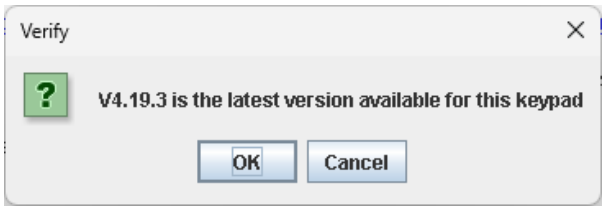
Make sure you leave "GTO" at the end of your serial number, and enter the keypad installed version exactly as you see it on the keypad screen

Your results should look similar to this:

5. Click "Load from Internet" button.

6. Choose the version you wish to update to.

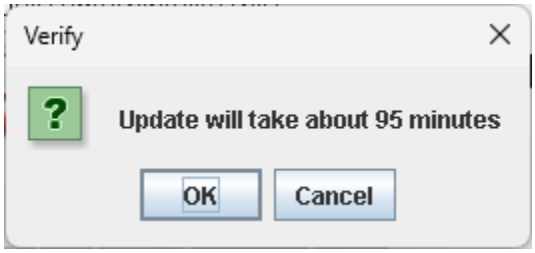
Depending on your Keypad serial number, you will receive one of the following options:



Click "OK", or "Load [version]" to proceed. The "What's the difference?" button opens a web page (the same as the link above) that describe the differences and update considerations.

Clicking Cancel button will return you to the Keypad screen without entering the update process

7. Clicking OK will inform you of the estimated time for the complete update. This ranges from 20-90 minutes depending on the version and choice of firmware and/or catalog update.

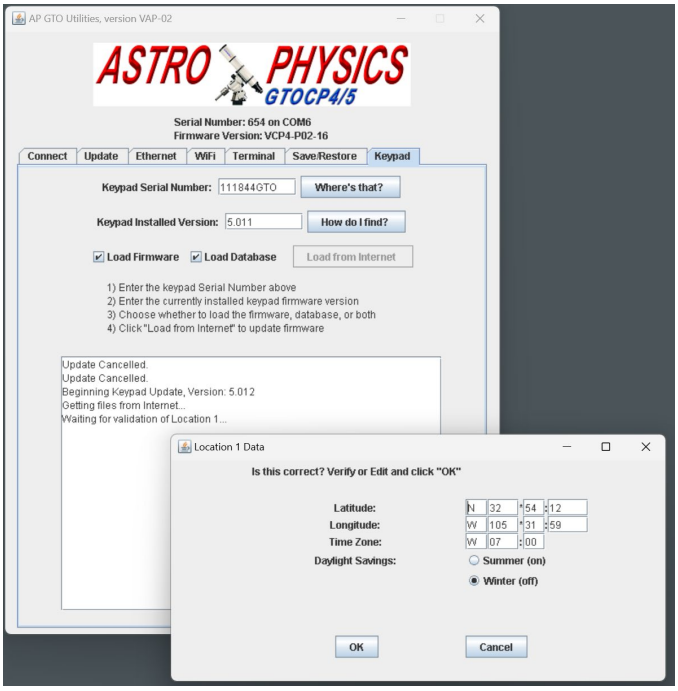


Click OK to proceed, Cancel to go back

8. AP GTO Utilities will then download the needed files from the Internet.

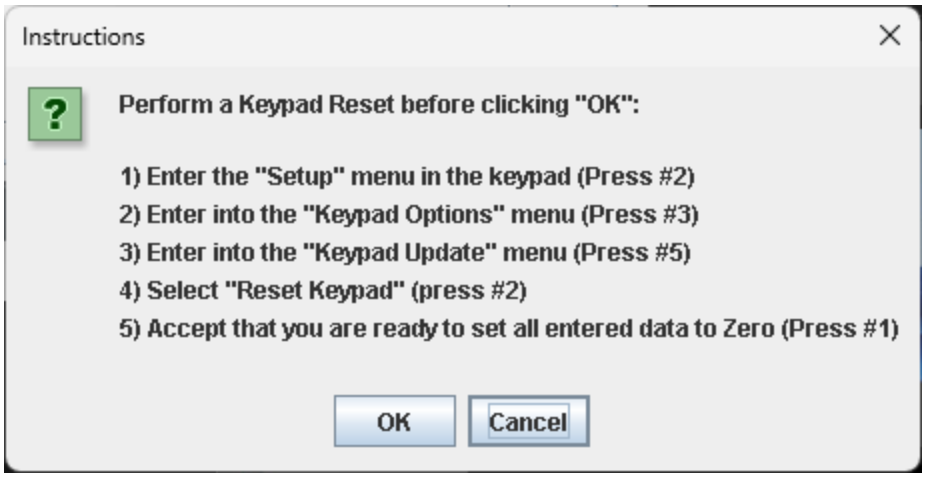
NOTE: If you are updating from version 4 to version 5, the app will ask you to validate Location 1 settings. This location will be restored to your updated Keypad.

Review, edit (if necessary), and confirm your location data and click OK to continue:



Next you may be required to perform a keypad reset before proceeding. If you do, the steps are different depending on your keypad version and are done on the keypad itself:

For a v4 Keypad you will see these steps for a reset:

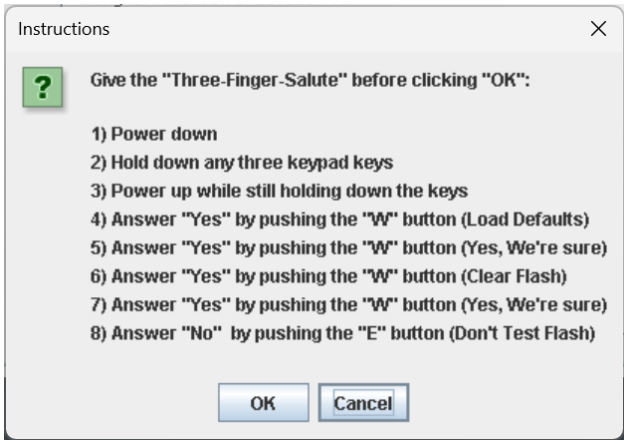


For a v5 Keypad you will see these steps for a reset:

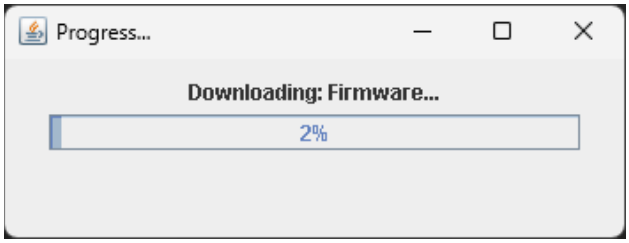
9. Next are the second and final steps to prepare the Keypad for update. Again, follow the steps shown in the dialog box before proceeding. The steps are done on the Keypad itself.

Notes:
Step 1. “Power Down” can be accomplished either by unplugging the keypad or powering off the Control Box. If you power off the Control Box, make sure to wait at least 5 seconds before powering back on.

Step 8. The screen will have an option “Fn =No”, but just press the E button (there is no Fn button)



10. The update process will now begin. Do not interrupt the update process.



11. Once the process is complete, it will ask you to power cycle your Control Box.

12. Your keypad is now updated.

Installing a Keypad Modeling License

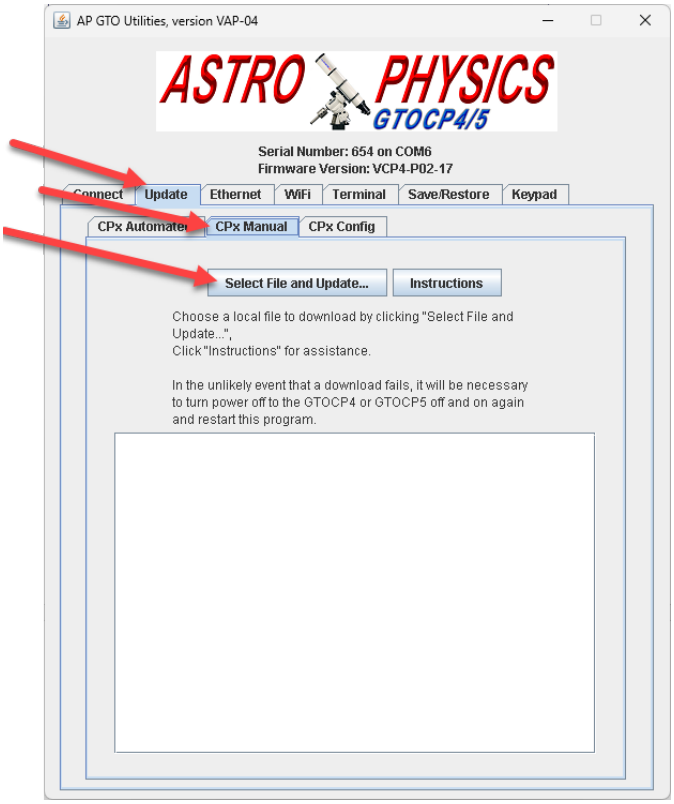
Beginning with the CP4, keypad modeling is an optional feature that can be installed via AP GTO Utilities. For later versions of CP4 and all CP5 control boxes, this license may already be installed.

Steps to Install your Keypad Model License

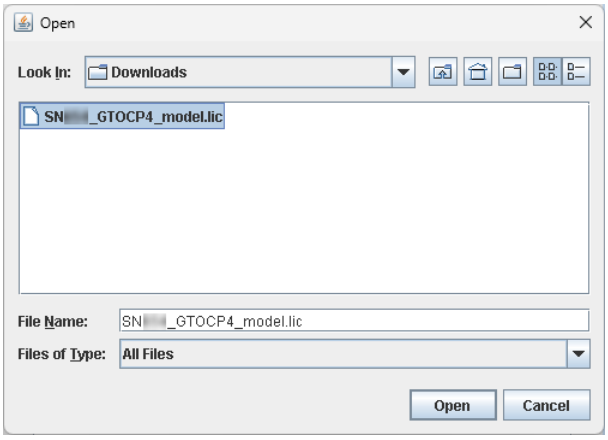
1. Obtain a model license key. This process already assumes you have a modeling license. More information on this license is available at https://www.astro-physics.com/cp4-keymodel-256

2. In AP GTO Utilities make sure you are connected to your Control Box via any supported method (serial, USB, ethernet, etc.)

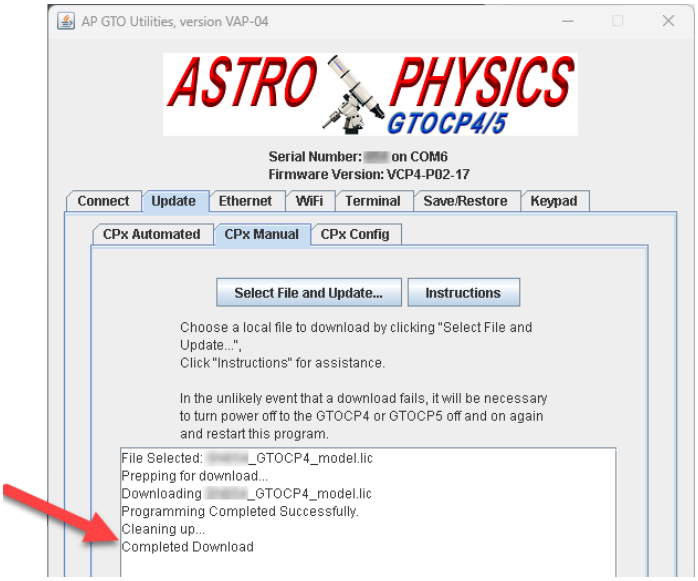
3. Click on the Update Tab, then click on the CPx Manual sub-Tab



4. Click the Select File and Update… button. Locate the license file you have for the keypad modeling and open the file

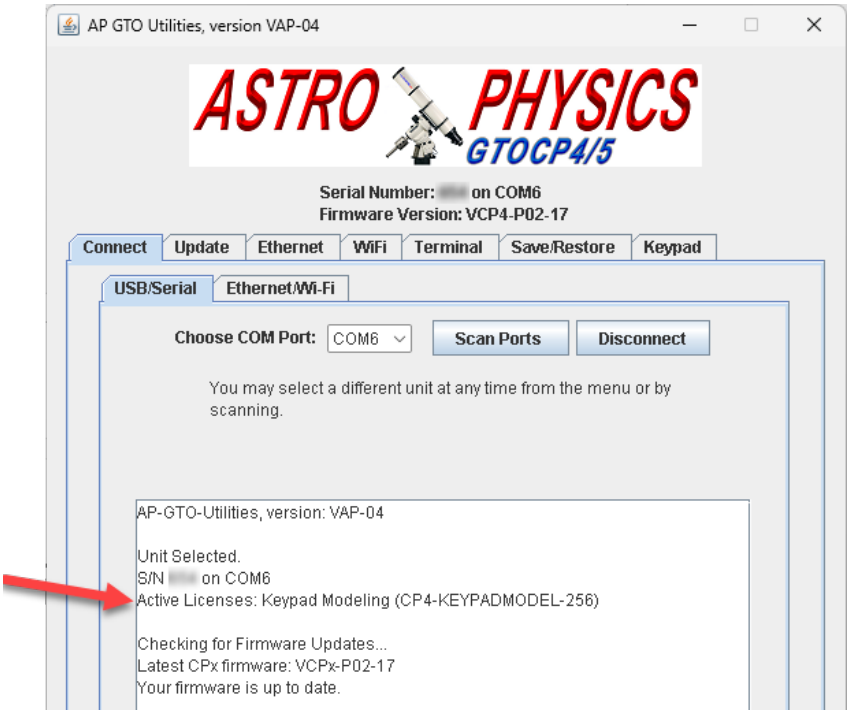


5. The update process will begin and complete automatically. If the license file is invalid or is not for your serial number, it will alert you. Otherwise, the process will indicate when it's complete



6. The final step is to power cycle your control box. Unplug the power, wait approx. 3-5 seconds until the control box's front panel LED light is no longer illuminated, then apply power again.

7. You can verify the keypad modeling license is installed by re-connecting to the AP GTO Utilities:



Access Online User Manual Using the Help "?" Menu

Beginning with AP GTO Utilities version VAP-05, clicking the tab option "?" opens the latest GTO Utilities documentation (this manual) in a browser window. An internet connection is required to access the documentation via this tab.

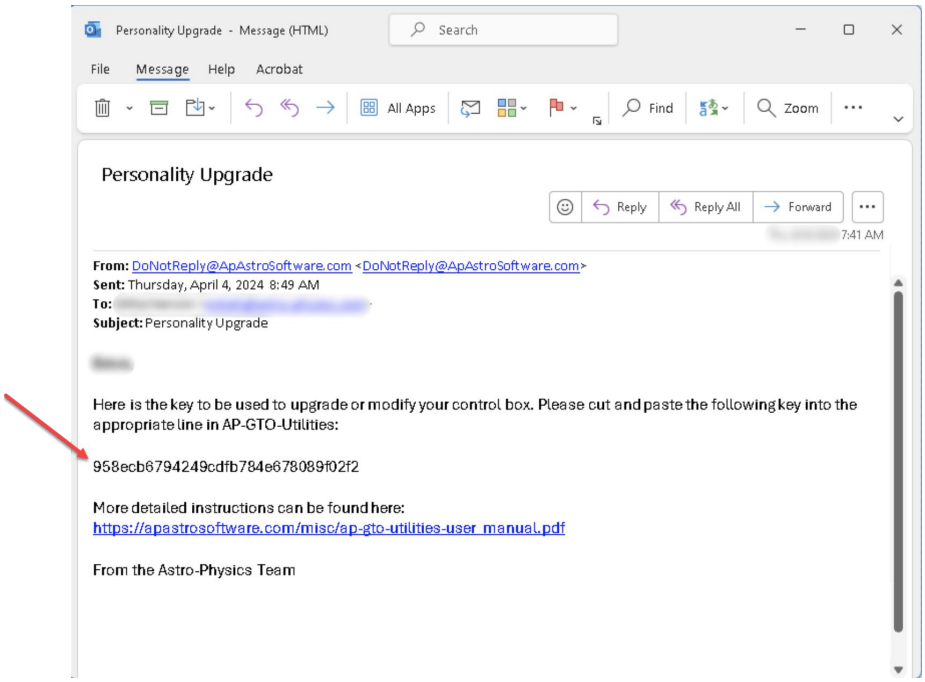
Updating your Control Box Personality

Beginning with AP GTO Utilities version VAP-04, you can now update your CPx personality. Personality updates are used when switching or upgrading control boxes between different mount models, switching between a non-encoder mount and an encoder mount, or fixing a corrupted personality.

Steps to Update Your Control Box Personality

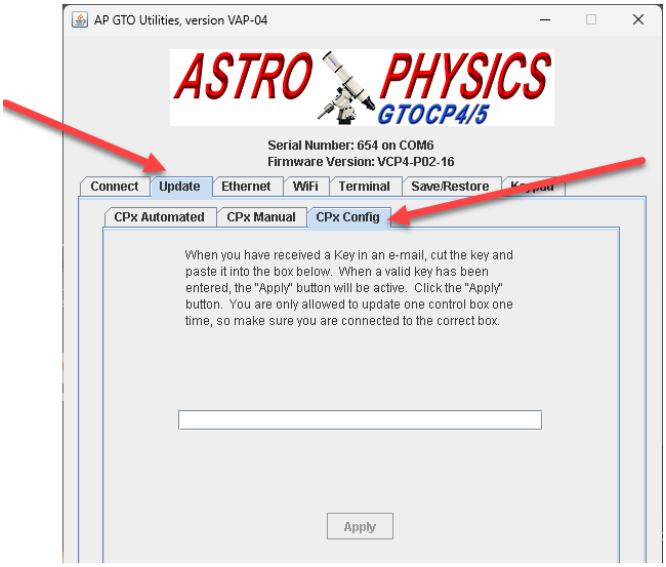
1. Obtain a Personality Key.
   Before beginning, you will need to contact Astro-Physics directly to obtain a personality key. Be prepared to provide your control box serial number and the reason for a personality update (e.g., switching mount, added encoders, etc.). You may also need to provide additional information such as your mount serial number.

   Once you have completed your personality request, you will receive an email with a Personality key that will look similar to this (the personality key is noted by the red arrow):



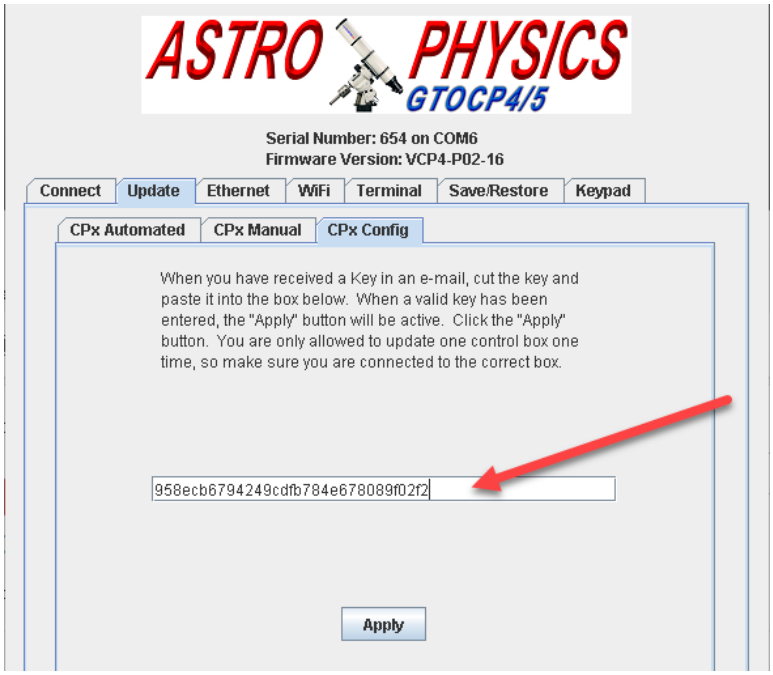
2. In AP GTO Utilities make sure you are connected to your Control Box via any supported method (serial, USB, ethernet, etc.)

3. Click on the Update Tab, then click on the CPx Config sub-Tab

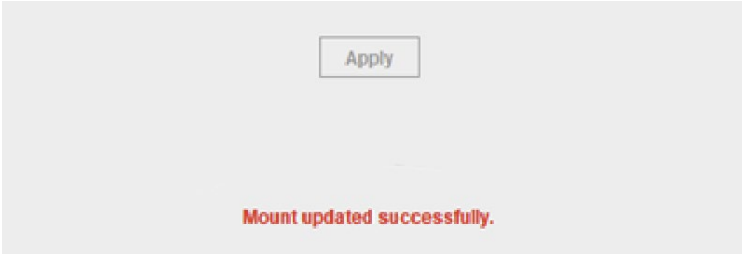


4. Copy the Personality Key from your email. You can use the left mouse to click-and-drag to select the Key, then copy the key to the clipboard (e.g., Choose Copy from the Edit menu, Command/Ctrl-V, or right-click on the selected text and choose Copy from the pop-up menu)

5. Paste the key into the field, as shown and click Apply button:



6. If the key was successfully copied to the mount, you will see this confirmation message.



You have now successfully updated your Control Box personality.