

First Session with Your GTOCP4 Control Box

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Everyone Read This!

PEM Curve

If you are upgrading from a previous version of the control box, you cannot reuse the curve from your earlier CP1/CP2 or CP3 unit. You MUST use PEMPro, the GTO Keypad or other program to create a new curve. Until this is done, leave PEM disabled.

Initializing your GTOCP4 for the First Time

Your new GTOCP4 control box must be initialized, but just what do we mean by initialize? Initialization has three parts:

- The initialization process tells the GTOCP4 your location (Latitude and Longitude), time and time-zone.
- Initialization either calculates your current pointing position, or else it allows calibration on a pre-defined pointing position like an AP Park position.
- Initialization takes the mount out of a parked state and commences tracking at either the default sidereal, or at a different rate if commanded.

For users upgrading from GTOCP3 to GTOCP4: Your new GTOCP4 does NOT know any of the information that is stored on your original GTOCPx control box (location, time, time zone, last position, etc) – the memory is EMPTY, or contains test data from Astro-Physics which will be WRONG for you. It can NOT calculate the current pointing position since it does not have this information. This first initialization will therefore require calibration on an AP Park position.

Refer to the section below that pertains to your software and particular situation – new mount or upgrade from previous version of GTOCPx Control Box.

Once you have initialized your mount, you may wish to slew to an object, center it and recalibrate if your reference park position was less than perfect.

If you wish to set your mount to auto-connect (a.k.a. auto-initialize) the next session, refer to the documentation for the Keypad or the software you are using for more information. Only set auto-connect options AFTER the first initialization and sky calibration have been completed.

If you have Absolute or Precision Encoders, be sure to take note of the relevant section below.

PLEASE NOTE: We highly recommend that you get your GTOCP4 fully initialized BEFORE you try to take advantage of the Ethernet and WiFi capabilities.

This information will be updated frequently as new options become available. Check back to the Technical Support section of our website periodically and check out the GTO Servo Drive section.

Keypad: software version 4.19.x

NOTE: If you are using 4.19.2, please update to 4.19.3 to avoid a rather obscure little bug. You can do this after setting up the GTOCP4 because it does not affect this process, but please remember to do it.

New Mount Owners

Please refer to the “Your First Observing Session & For Portable Mount” in the version 4.19.3 Keypad manual. As of this writing, the information is on pages 12-13. Here is a link to the manual:

http://www.astro-physics.com/tech_support/mounts/keypad/keypad-manual.pdf

For current Keypad users upgrading from a previous control box to a GTOCP4

1. If you still have your GTOCP3 or earlier version of the control box, we suggest that you leave it in place during these first steps. If you no longer have your previous control box and Auto-Connect = YES in your Keypad settings, follow the steps in the section below.
2. Remember that Auto-Connect should be set to “NO” prior to your first session with the GTOCP4. To change the setting, select “2=Setup” and then “3=Keypad Options.” Press “1” to toggle Auto-Connect to “NO.” Use “MENU” to return to the main menu.
3. Set the tracking rate to STOP using the “8” key.
4. Park the mount to one of the defined positions – 1, 2, 3 or 4.
5. This might also be a good time to verify that your location information in the keypad is correct, and that the time, DST and date are also correct. Since you have stopped the tracking, it will remain perfectly in the park position you selected, even though going through this process technically un parks the mount.
6. Turn power off, disconnect the cables, and replace the older GTOCPx unit with your new GTOCP4.
7. Reconnect the cables including the new power cable and the keypad.

8. Power up the mount.
9. Since you set auto-connect to "NO" you will be asked for your location. Enter the location number for your current location and press "GOTO".
10. Choose 4=New Setup
11. In the next screen, press the number corresponding to the position you chose in #4 above.
12. You are ready to go.

If you are using the GTOCP4 and your Keypad is Set to Auto-Connect = YES

- A. Simply power up the GTOCP4 with the keypad and servo-Y-cable connected. It will then initialize the mount, but the pointing position will be wrong. DO NOT try to slew anywhere!
- B. Now, change the setting to Auto-Connect = NO as described in #2 above.
- C. Set the tracking rate to STOP as in #3.
- D. DO NOT park the mount as in step #4!!
- E. Perform step #5.
- F. Use the clutches or direction buttons to physically put the mount into an AP park position – Park 4 is preferred.
- G. Power-cycle the GTOCP4. (Power it off. Wait 10 seconds. Then power back on.)
- H. Proceed at step #9 above.

Keypad: software version PRIOR TO 4.19.x

First of all, if you are using an older version of the Keypad software, we encourage you to upgrade. However, you are not required to do so at this time. Since you have older keypad software, we will assume that you have already configured your keypad with your time and location. If by chance, that assumption is incorrect, please refer to the appropriate section on "Your First Observing Session" in the keypad manual for your software version.

For Keypad users upgrading from previous control box to GTOCP4

1. If you still have your GTOCP3 or earlier version of the control box, we suggest that you leave it in place during these first steps. If you no longer have your previous control box and Auto-Connect = YES in your Keypad settings, follow the steps in the section below.
2. Remember that Auto-Connect should be set to "NO" prior to your first session with the GTOCP4. To change the setting, select "2=Setup" and then "3=Keypad Options." Press "1" to toggle Auto-Connect to "NO." Use "MENU" to return to the main menu.
3. Set the tracking rate to STOP using the "8" key.
4. Park the mount to Park 1. DO NOT use Park 2 or 3.
5. This might also be a good time to verify that your location information in the keypad is correct, and that the time, DST and date are also correct. Since you have stopped the tracking, it will remain perfectly in the park position you selected, even though going through this process technically unparks the mount.
6. Turn power off, disconnect the cables, and replace the older GTOCPx unit with your new GTOCP4.
7. Reconnect the cables including the new power cable and the keypad.
8. Power up the mount.
9. Since you set auto-connect to "NO" you will be asked for your location. Enter the location number for your current location and press "GOTO".
10. Choose 4=Resume Ref-Park 1
11. You are ready to go.

If are using the GTOCP4 and your Keypad is Set to Auto-Connect = YES

- A. Simply power up the GTOCP4 with the keypad and servo-Y-cable connected. It will then initialize the mount, but the pointing position will be wrong. DO NOT try to slew anywhere!
- B. Now, change the setting to Auto-Connect = NO as described in #2 above.
- C. Set the tracking rate to STOP as in #3.
- D. DO NOT park the mount as in step #4!!
- E. Perform step #5.
- F. Use the clutches or direction buttons to physically put the mount into the AP Park 1 position.
- G. Power-cycle the GTOCP4. (Power it off. Wait 10 seconds. Then power back on.)
- H. Proceed at step #9 above.

APCC, version 1.0.3.4 (latest release version)

There are two versions of APCC from which to choose – the released version 1.0.3.4 or the Public Beta version on the website. Since you have a GTOCP4, we highly recommend using the newer 1.5.0.x version. Refer to information in the next section if you are using the Public Beta version. This section is presented for those wishing to remain with the released version for a while yet.

For new users of APCC

If you are a new user, PLEASE be brave and use the newer v. 1.5.0.x Beta. Don't be scared off by the designation as a public beta. Don't make yourself climb the learning curve twice. The new version is geared for the GTOCP4 and will be much easier for you to configure. The information below on v.1.0.3.4 is for people who have already become familiar with the older released version.

You may use either serial or USB connection for this version. If you wish to use USB, you MUST install the FTDI driver first – before you plug the cable into the GTOCP4's USB port. Please refer to the relevant section later in this document.

Please note, version 1.0.3.4 preceded the GTOCP4 and there are two known issues when using the GTOCP4 with APCC 1.0.3.4. They are detailed below.

Issue: Error message that will occur each time you connect with the GTOCP4

The released version of APCC does not recognize the software version number of the GTOCP4. As a result. When you connect to the mount, a dialog box will appear with the following message:
"Invalid response from the mount. Firmware version V or later is required for APCC!"

Just ignore the message and proceed as usual. You will see that APCC will actually connect to the mount.

Note: this message could also occur if you are using USB for the first time and the COM port is not correct. Try another COM port and connect again.

Issue: The backup COM port does not work properly

If you set up a primary and backup COM port, the only COM port that will actually be in use is the backup COM port, not the primary.

Your first session

Connect on either serial or USB port. The Ethernet and WiFi connections are not available in this release.

For previous APCC users upgrading from GTOCP3 to GTOCP4

1. If possible, before disconnecting the GTOCP3, use APCC to park the mount at an AP defined position – Park 1, 2, 3 or 4. (Don't use a custom Alt/Az or current location.)

2. TEMPORARILY set the "Unpark From" in the park tab to that same park position.
3. Open the Advanced Settings Window from the main window in the Setup Tab: Setup tab => Advanced Settings => Auto Initialize:



- UNcheck the Auto-Initialize option.
4. Remove the GTOCP3 and install the GTOCP4 in its place.
5. If you were unable to park the mount earlier, move it manually into a reference park position, preferably Park 4 so that you can use a bubble level for greater accuracy.
6. Power on the mount.
7. Connect to the mount in APCC. You should NOT see an initialization window unless you failed to follow step 3 above. If the Initialize window opens, click the button bottom left to stop the process! We will open this window in the next step, but we want time to confirm the settings!
8. Open the Initialize Mount window by clicking Settings (on the menu bar)=> Initialize Mount.
9. Verify all of the settings including the "Unpark from" and the Site and Time Zone settings. Fix if necessary.
10. Change the Set PEM setting to Disable PEM, but leave it checked.
11. When satisfied that all is well, click the Initialize button at the bottom.
12. REMEMBER to change the "Unpark from" settings back to "Last Parked" first in the Park tab, then confirm that it changed in the Initialize window. Do NOT initialize a second time!



APCC, version Public Beta 1.5.0.x (Recommended for the GTOCP4)

There are two version of APCC from which to choose – the released version 1.0.3.4 or the Public Beta version. This information pertains to the RECOMMENDED Public Beta version.

You may use either traditional serial or USB (which is effectively serial) to connect to the GTOCP4 for this first initialization session. Later, you will also be able to use Ethernet or WiFi for your connection. If you wish to use USB, you MUST install the FTDI driver first – before you plug the cable into the GTOCP4's USB port. Please refer to the relevant section later in this document.

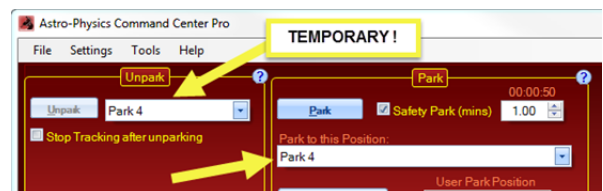
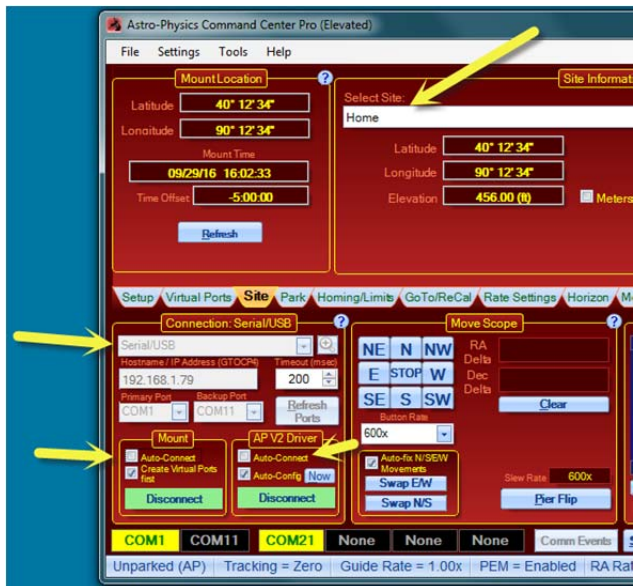
For this version of APCC, you must also be using the latest version of the AP V2 ASCOM Driver – v.5.09.01 or later. Please install it, if needed, before you make your first initialization connection.

If you are using the Public Beta version, please refer to the APCC Installation and Getting Started Quick Guide (v1.5.0.x). The link is available on the download page of our website as a separate document and is also included within the full APCC manual and available through Help if you have opened the program. Note that this Getting Started Quick Guide is significantly different from the one for 1.0.3.4!

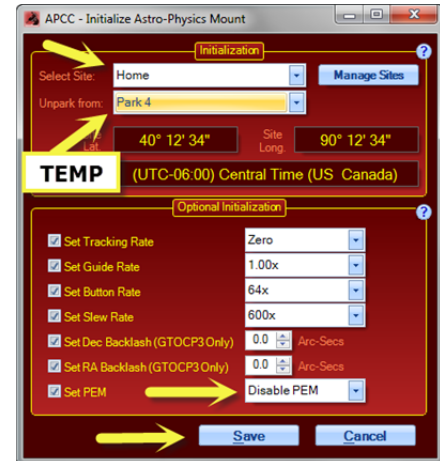
There are specific instructions that you should read if you are upgrading from a previous version of APCC as well as procedures for “Initial Setup – Recommended ‘Easy’ Setup” for new and experienced users.

For previous APCC 1.5.0.x users upgrading from GTOCP3 to GTOCP4

1. Make sure that your Site information is correct.
2. Select Serial/USB and your COM port in the Connection group box.
3. Uncheck the “Auto-Connect” box in the Mount box in the Connection group box if it is checked.
4. Uncheck the “Auto-Connect” box in the AP V2 Driver box in the Connection group box if it is checked.
5. a.) If you are still connected to your GTOCP3, use APCC to park the mount at an AP defined position – Park 1, 2, 3 or 4. (Don't use a custom Alt/Az or current location.)
b.) If you have already removed the GTOCP3, or if this is a new setup, manually move the mount into the Park 4 position.
6. TEMPORARILY set the “Unpark From” in the park tab to that same park position from #5 above.
7. From the menu bar at the top of APCC, open: Settings => Edit Initialize Mount Settings...
8. Again, TEMPORARILY set the “Unpark from:” to the same park position you used in #5 above.
9. Make sure the Site that is selected in the Initialize Astro-Physics Mount window is correct.
10. Leave Set PEM checked, but change it to “Disable PEM”



11. Verify the other information, and then click the “Save” button.
12. If connected to a GTOCP3, power down and unhook it.
13. Attach the GTOCP4 to the mount.
14. Connect all cables that you will use except Ethernet and the keypad to the GTOCP4.
15. Power the GTOCP4 up.
16. If you will be using the USB connection, be sure you have determined the correct COM port and entered it into APCC’s Connection group box.
17. Connect APCC to the GTOCP4 by clicking the “Connect” button under Mount.
18. If you had the auto-init checked in the Advanced Settings window, APCC will initialize the mount after the specified wait time.
19. If auto-init was unchecked, go to the menu bar and open Settings => Initialize Mount. Click the “Initialize” button.
20. REMEMBER to change the “Unpark from” settings back to “Last Parked” first in the Park tab, then confirm that it changed in the Initialize window. Do NOT initialize a second time!



You should now be fully initialized and pretty well calibrated with the sky. Enjoy!

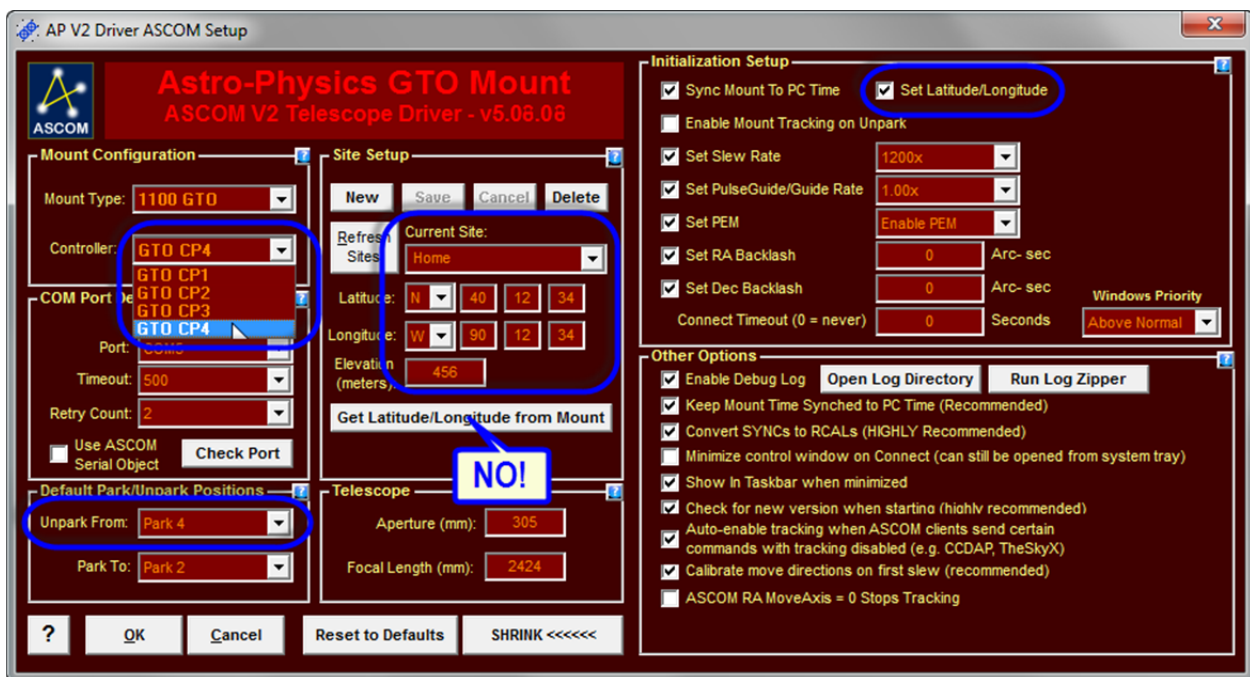
AP V2 ASCOM Driver, version 5.09.01 (latest release version)

These instructions assume you are NOT using APCC, and that the AP V2 driver is your primary means of mount control.

Note, however, that you must use this driver (or later version if one has come out when you read this) with APCC v1.5.0.x (or later) If you are using the AP V2 Driver along with APCC, let APCC initialize the mount for the first time.

Link to most recent driver: <http://www.gralak.com/apdriver>

1. Install FTDI Driver on your PC if you will use USB (see section below).
2. Install the GTOCP4 on to your mount and connect the mount’s cables and power cable.
3. Connect either a USB cable from PC to CP4 or else a serial cable from PC to CP4.
4. Determine the COM port number for the connection.
5. Open the Setup Telescope Window. If you do not have the shortcut on your desktop, it will be under Start => All Programs => Astro-Physics => ASCOM Driver.
6. Set the AP V2 ASCOM driver to use this COM port.
7. Verify your other ASCOM settings.
 - a. Check your site information.
 - b. Be sure that you have checked the box to set the Latitude and Longitude.
 - c. DO NOT try to get the Latitude and Longitude from the mount! It will have test coordinates used here at Astro-Physics.
 - d. Change the control box to GTOCP4.



8. Set the AP V2 ASCOM Driver to unpark from your preferred Defined Park Position (1, 2, 3 or 4). We highly recommend using Park 4. ****THIS WILL BE TEMPORARY !!**
9. Using the clutches, move the mount into the selected Defined Park Position, if it is not already there.
10. Power up the GTOCP4
11. Open AP Jog Utility and connect to GTOCP4
12. Verify that the coordinates displayed in the driver's Virtual Handbox match the coordinates of the selected park position.
13. ****CHANGE THE "UNPARK FROM" IN THE DRIVER BACK TO LAST PARKED!**

From here, you are ready to go. You have initialized the mount and given it the information it needs to operate. You can use any ASCOM client application such as a planetarium program to control the mount.

SkySafari

At the present time, you must initialize your mount using a different option – keypad or computer, as described above, prior to connecting with Sky Safari. We have started discussions with Simulation Curriculum regarding implementation of an initialization procedure. We do not have an estimated release date at this time.

Once your mount is initialized, you can connect SkySafari directly with WiFi. Please read the relevant section later in this manual pertaining to WiFi.

There are two methods for directly connecting SkySafari to the GTOCP4 via WiFi after you have initialized the mount by another means.

PLEASE NOTE: BOTH methods will use Port #23 in SkySafari's Settings => Telescope => Setup menu

The first method is to use the GTOCP4 as an Access Point. Your smart device will connect directly to the CP4's wireless network at GTOCP4_Net_xxxx as described below. This must happen first. Then SkySafari will connect to the IP address 172.31.0.1 on port number 23.

The second is to use an existing wireless network like you may have at your home or observatory. Both your GTOCP4 and your smart device connect to the wireless router. The network administers everything and assigns an IP address to the GTOCP4. When both the smart device and CP4 are connected, connect SkySafari to the assigned IP address, again on port number 23.

Mounts Equipped with Absolute Encoders

You must use the APAE Utility v.2.x or later with the GTOCP4. If you did not receive the CD with this utility along with your GTOCP4, please contact Astro-Physics.

The GTOCP4 combines the functions of the GTOCP3 and GTOAE boxes into a single, more efficient unit. Your new GTOCP4, however, will not have the correct encoder values for your particular mount. We intentionally ship the GTOCP4 with the RA and Dec Limits turned OFF to avoid problems with different than expected encoder values. You will need to re-run the APAE Utility – now in v.2 – to re-establish your home and limits. The procedure is the same as when you first set up Home and Limits originally with the CP3 and AE boxes.

1. Initialize the mount using a computer or the keypad.
2. Calibrate the mount with the sky.
3. Run the "Set Home & Limits" routine in the APAE Utility.

For additional details, see the APAE Utility Instructions.

3600GTO Mounts Equipped with Precision Encoders and/or Home and Limit Switches

The GTOCP4 combines the functions of the GTOCP3 and GTOELS boxes into a single, more efficient unit. Your new GTOCP4, however, will not have the correct encoder values for your particular mount. We intentionally ship the GTOCP4 with the RA and Dec Limits turned OFF to avoid problems with different than expected encoder values. If you have APCC, you will need to re-run the Establish Home routine in APCC before using your Home and Limits functions. The procedure is the same as it was for the individual GTOCP3 and GTOELS boxes.

1. Initialize the mount using APCC.
2. Calibrate the mount with the sky. We recommend using the Plate-solve and ReCal function in APPM to accomplish the most accurate calibration.
3. Run the Establish Home procedure in APCC's ELS tab.

See the APCC Help for more information.

If you do NOT have APCC, first off, we recommend that you get it! However, you can also use the commands as described in your original documentation to set up your home and limits. For assistance, please contact Astro-Physics.

If you have the Precision Encoder System, and you do NOT have APCC, the easiest way to turn the encoder correction on and off is with the APAE Mini Utility. Again, contact Astro-Physics for assistance if you do not have this utility.

USB – You **MUST** download and install the FTDI Driver **BEFORE** connecting to either APCC or the AP V2 Driver

To use the USB port on the GTOCP4, you **MUST** install the FTDI driver onto your computer. It is important that you install this driver **BEFORE** you connect the GTOCP4's USB port to your computer for the first time! The latest driver can be found at <http://www.ftdichip.com/drivers/vcp.htm>. Note also that the FTDI USB to serial devices are all uniquely serialized. Each one will be assigned its own COM port that will be remembered through power-cycles.

As of early August 2016, this is a screen shot of the webpage that contains the link to the driver. The arrow middle right in the screenshot below points to the file you must download. (Ignore the Mac OS X Driver.)

Comments

WHQL Certified. Includes VCP and D2XX.
Available as a setup executable
Please read the Release Notes and Installation Guides.

Currently Supported VCP Drivers:

Operating System	Release Date	Processor Architecture							Comments
		x86 (32-bit)	x64 (64-bit)	PPC	ARM	MIPSII	MIPSIV	SH4	
Windows*	2016-06-23	2.12.18	2.12.18	-	-	-	-	-	WHQL Certified. Includes VCP and D2XX. Available as a setup executable Please read the Release Notes and Installation Guides.
Linux	2009-05-14	1.5.0	1.5.0	-	-	-	-	-	All FTDI devices now supported in Ubuntu 11.10, kernel 3.0.0-19 Refer to TN-101 if you need a custom VCP VID/PID in Linux
Mac OS X 10.3 to 10.8	2012-08-10	2.2.18	2.2.18	2.2.18	-	-	-	-	Refer to TN-105 if you need a custom VCP VID/PID in MAC OS
Mac OS X 10.9 and above	2015-04-15	-	2.3	-	-	-	-	-	This driver is signed by Apple
Windows CE 4.2.5.2**	2012-01-06	1.1.0.20	-	-	1.1.0.20	1.1.0.10	1.1.0.10	1.1.0.10	For use of the CAT files supplied for ARM and x86 builds refer to AN_319
Mac OS X 10.9 and above	2015-04-15	-	-	-	2.3	-	-	-	VCP Driver Support for WinCE2013

Once driver installation is completed, connect the USB cable from the computer to the GTOCP4. The GTOCP4 does NOT need to be powered up or connected to the mount for this. Allow windows to identify the new device and assign a COM port number to the FTDI unit in the GTOCP4. Find the COM port number for this device in Control Panel. This is the COM port number you will use for USB connections. From this point forward, you can think of the USB port on the GTOCP4 as simply another COM port.

Ethernet and WiFi

Ethernet and WiFi capability are two of the GTOCP4's most popular features. They will be even more important as the rest of the astronomy world catches up. For the present, APCC is required to use Ethernet or WiFi with the many Windows astronomy applications that are in use. Sky Safari users can already connect directly via WiFi once the mount is initialized. Finally, the GTOCP4 has a built-in web interface that allows access to many settings as well as a simple interface for uploading GTOCP4 software upgrades as they come available.

Be sure to read the relevant sections of the GTOCP4 manual before using these communication ports. Here is some additional information:

The Network-based functions of the GTOCP4 continue to undergo development and improvement. Many of you would never see any kind of problems with the software in its current state. However, some of you might experience some network traffic issues if **both** WiFi and Ethernet are active simultaneously. For the present time, we recommend the following:

1. If you will be using Ethernet, but NOT WiFi, turn WiFi OFF from the "Change Network Connection" page of the GTOCP4 internal web page set. This is a good practice anyway. After all, there is no way to hack a wireless connection that is turned off!
2. If you will be using WiFi, but NOT Ethernet, set the DHCP mode to OFF or CLIENT in the "Advanced Ethernet Settings" page of the GTOCP4 internal web pages. This may already be set as a default.
3. If you plan to use both Ethernet and WiFi, regarding Ethernet, set the DHCP mode to CLIENT to connect the GTOCP4 to a Local Area Network (LAN). Set the DHCP mode to SERVER ONLY if you will be connecting directly, peer-to-peer with a computer. Change these on the "Advanced Ethernet Settings" page of the GTOCP4 internal web page set.
4. For the present, we do not recommend the BOTH setting under DHCP mode if you are also using WiFi at the same time.
5. In most cases, the wired Ethernet connection will be the most robust and dependable, but WiFi can be pretty close if your router's signal strength is good.

ASCOM Ethernet - WiFi Poll Utility

A handy ASCOM Ethernet - WiFi Poll utility has been provided on our Technical Support Page for divining the correct IP address for ASCOM users without the networking expertise to do so themselves.

http://www.astro-physics.com/tech_support/mounts/keypad_update/run/E-net_WiFi_Poll_2016-0711_Secure.zip

Download the Ethernet – WiFi Poll application from the AP website and unzip it onto your desktop. **Use the same Username and Password as for a keypad firmware update to download this utility.**

Connect the GTOCP4 to your home network with an Ethernet cable for this first session. Allow the network router time (a minute or so) to assign an IP address to the GTOCP4. Now you can double-click the utility to start it up.

The Utility will use the driver that you have already configured (above). The utility can even open up the GTOCP4 Web Interface in Internet Explorer if it is present on your system. We recommend that you open the web page at the end of the application. You can use the web pages to make any changes or adjustments needed to the Ethernet or WiFi settings. Change settings as needed. See below for more information.

Getting Started

Configure your WiFi from the GTOCP4's built in web pages. If you can open the web page from a browser using an Ethernet connection, please do so. It's probably the fastest and easiest.

If you will be configuring from a wireless device, start by joining the GTOCP4's wireless Access Point network.

1. In your wireless device (laptop, smartphone, tablet, etc.) open the device's wireless settings page.
2. Find the network for the GTOCP4 in your device's list. It will be named: GTOCP4_Net_XXXX as described earlier, where the XXXX at the end represents the numeric portion of the CP4's serial number without leading zeros.
3. Connect your device to the network. You will be prompted for a password. The default password starting out will be: XXXXadmin12345 where again, the XXXX represents the numeric portion of the serial number without leading zeros. For the GTOCP4 with serial number CP4-0092, the password would be: 92admin12345
4. Once your device shows that it is connected to the GTOCP4's Access Point network, open the devices browser.
5. In the browser's URL address bar, enter the following IP address: 172.31.0.1 and then the equivalent of "Enter"

This will bring up the GTOCP4 Main Web page just like the Ethernet version. From this page, you can move on to the Change Network Connection or Advanced WiFi pages. On these pages, you can choose the default WiFi connection, and you can change the Access point Network Name if you wish. ***It is highly recommended that you change the password to something more secure since anyone with access to this manual and knowledge of your serial number can determine the factory default password.*** The new password will NOT take effect until the GTOCP4 is power-cycled.

Important Note: Most devices are smart enough to ask you for the new password when you try to connect after you have made a password change. This is, unfortunately not the case with Windows 7 and some later versions as well. Once a Windows computer has made a connection with your original password, it may simply fail to connect instead of asking you for the new password. It won't even have the courtesy to tell you why it failed to connect.

To remedy this in Win 7, click on the little WiFi symbol at the far right of the task bar. This will open a small box with the listing of all the currently available WiFi Networks. Find the GTOCP4's WiFi name and right-click on it. Select "Properties". In the next little window that opens, go to the Security Tab. Here, you can enter your new password where it says "Network Security Key. To make it easier, check the box to show the characters - just remember to un-check it when you are finished. Once the password is entered, click OK. Now you should be able to connect using Windows.

In Win 10, You will want to access the Network & Internet section of the new Settings App. This can be done by either opening the app or by clicking the same WiFi icon mentioned above for Win 7, and then clicking the settings link at the bottom of the list. First, try connecting to the GTOCP4 from the settings page. It will hopefully then present you with a request for additional information (this means the password). If it does not, then click Manage WiFi Settings at the bottom, select the GTOCP4 from the list and tell Windows to forget it. Now power-cycle the GTOCP4, allowing at least a minute or so between power-off and power-on. (Windows needs

to lose, and then re-find the “new” network.) Go back to the main WiFi page and you should see the GTOCP4 again. Now this time, it should allow you to enter your password and connect.

Why, nothing could be simpler! (ahem! cough! cough!)

Updates to the GTOCP4 Software

We will send information regarding updates to the GTOCP4 software to the email address that we have on file. If you have purchased your mount or control box through a dealer, we recommend that you send in your registration card.

Updates to the Manual

Check the Technical Support section for the latest version of the GTOCP4 manual as well as this document. They are living documents and will be continually updated. We suggest that you download the latest version to your computer or smart device for easy reference.