

## UFI -- PC Software Installation Update -- 8/2020

***UFI software is now supplied on a USB Flash Drive that will be included with the accessories for your UFI Device. Carefully locate that USB Flash Drive first!***

The install path for most UFI software has been unchanged for many years. Your first step should be to copy the UFI Software folder from the USB drive to the hard drive on your computer. Two steps remain after this.

a. Install the UFI software

This usually involves running the Setup.exe program from the UFI software folder. If your computer is in "s-mode", this will need to be addressed, cleared first. And if the Setup based install fails, you will need to perform the alternate install path via the "click once applicaion" first, and then run the setup process afterwards. This is described in the following pages.

b. Install the USB drivers

These drivers are required for the UFI software to be able to communicate with your UFI device. With your UFI device turned OFF and your computer connected to the internet, the first time you plug your UFI device into your computer using the USB cable provided, your computer will usually find the drivers on the internet and work through installing them. There are two components, and it can take a few minutes each, and we suggest ten minutes for this process to complete. Balloon notices (lower right) should give status on this process. If the computer says the device is ready to use, the process may still fail, and the software may not be able to access the UFI device. You will need to use the Device Manager to inspect and correct this as described in the following pages.

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### Overview

A number of the systems that UFI supplies can rely on "PC" software programs in order to complete the overall functionality of the system. PC type computers are by far the most common, and so we have supplied support software targeting use on these computers. Up until fairly recently, the installation of our software programs have been fairly straight-forward, and have not posed substantial hardships to our customers. This fairly simple install path has been in place for UFI software for over a decade.

Very recent versions of and/or updates to the WinX software that is standard on PC computers sold now, may be changing that. The installation of the UFI software may now be challenging, requiring very carefully charting a path to getting UFI software to run properly on your computer. This technical article is an attempt at helping you chart that path. Note that there is no "press this button or click over this link" solution to this problem! Understanding, then carefully proceeding is the only pathway. If you would rather not delve into these details, then do yourself a favor and consider our "NBPC" item on our price list. When you purchase this, we will install and test our software on a suitable computer for you.

## Basic Issues

From what we can tell, there are three things that may have recently changed that have impacted the overall install path for UFI software.

### 1. WinX "S-Mode"

Some new PC computers arrive with S-Mode enabled for the operating system. This means that you can only install additional programs on this computer if they are downloaded from the WinX Store. (Many UFI programs have been in use for years, over a decade in some cases, and we don't have anything in their store.) And we have no idea if the automatic upgrade process can enable S-Mode or not. S-Mode can be turned off (once and permanently), but this must be done very carefully, or it will modify the identity of your computer (discussed next).

### 2. WinX Account

When you first start up a new WinX computer, you are pressed to set up a WinX account. You don't seem to be forced to do this, but you need to carefully read all the options and labels provided, or you will end up having to come up with a Name and Password for your WinX account, which will become the login credentials for your computer. You don't have to do this, if you proceed carefully. But if you do this, do it carefully. If you use WinX account credentials that you have already established for a different computer, we think the two computers will get linked together, even their login information. You may like that, you may not. Just be aware what is going on, and read everything very carefully.

The other reason this is important is that you must use WinX account credentials in order to be able to turn S-Mode off, in order to be able to run UFI software. If you set up a WinX account as a part of the start-up process, you can just use that. However... this must also be handled very carefully! When you go to turn S-Mode off, as you enter in Name then Password information for a WinX account, on the second screen there is a

huge "accept" or "Next" button or something, and if you press that, WinX will force your WinX account credentials as the identity and login of your computer, even if you didn't set your computer up that way. Maybe you don't mind... There is also a very small label and link off to the left, saying something like "just apps" or something similar. If you press that, WinX will use your WinX account info just to turn S-Mode off without changing the identity and login credentials for your computer.

### 3. Plug-in USB Installation may fail

Up until very recently, you could usually have Win automatically install the required USB drivers for your UFI device. With the UFI device turned off, and your computer connected to the internet, you could just plug the UFI device into a USB port on your computer for the first time, using the standard USB cable provided, and Win would jump on the internet, find the drivers, install them... We have been recommending 10 minutes maybe for this process to complete because there are two components that need installing. Still, this process may not always work. It can look like Win tries to perform the install, and may even say that your device is ready to use, but this may not be the case. We do not yet know what part of this process is failing.

### Solution Overview

We performed a very recent install of UFI software on a new PC computer. We have included the actual install process log entries below, that section having to do with the UFI software install and USB repair.

#### A. USB Driver Install

-- Initial UFI Device USB connection failed to correctly install USB drivers  
    Waited 20 minutes.  
    OS indicated device install successful (ready to use)  
    Device Manager listing indicated problem (yellow triangle)

[Easiest path to Device Manager is actually typing this into search bar along

bottom of screen, far left but to the right of the Start button. List will show "Device Manager App" at top of list, you can double click over that.]

-- Stopped and copied UFI Software Source folder to Unit  
(placed in i86 program files, but don't think this is critical)

-- Through Device Manager again, inspected USB connection (Yellow triangle for USB or unknown device), then alt-click Properties

-- Selected "Update Drivers" to manually install the drivers from Software Source folder, "Driver" sub-folder, inside the UFI Software folder, then ran until completion.

-- This needed to be done twice as expected, for both components

-- When done, "USB Serial Port (Comx)" showed up properly under Ports in Device Manager listing.

## B. UFI Software install

-- Attempted execution of "Setup.exe" file from UFI Software Source folder

[OS refused to run Setup because computer was in "S-Mode" which allows only M Store programs to be installed. Option provided to turn "S-Mode" off. This required M Account info entry, and used UFI info to allow "S-Mode" to be disabled. Carefully selected use of UFI M Account to just disable "S-Mode" (small print label to left). "S-Mode" cleared.]

-- Attempted execution of "Setup.exe" file from UFI Software Source folder

[VB Powerpacks installation failed. Navigated to Application Files folder (inside UFI Software Source files folder), then double-clicked over the "ClickOnceapplication" file in this folder as an alternate install path. Prompted to authorize installation of the Dot Net Framework 3.5 extension to the OS which proceeded with permissions, and the UFI software started up correctly afterwards. Closed UFI software.]

-- Attempted execution of "Setup.exe" file from UFI Software Source folder

[EFI Software installation proceeded as expected, and software icon added to start menu. Software started and ran from start menu item as expected.]

## More Details

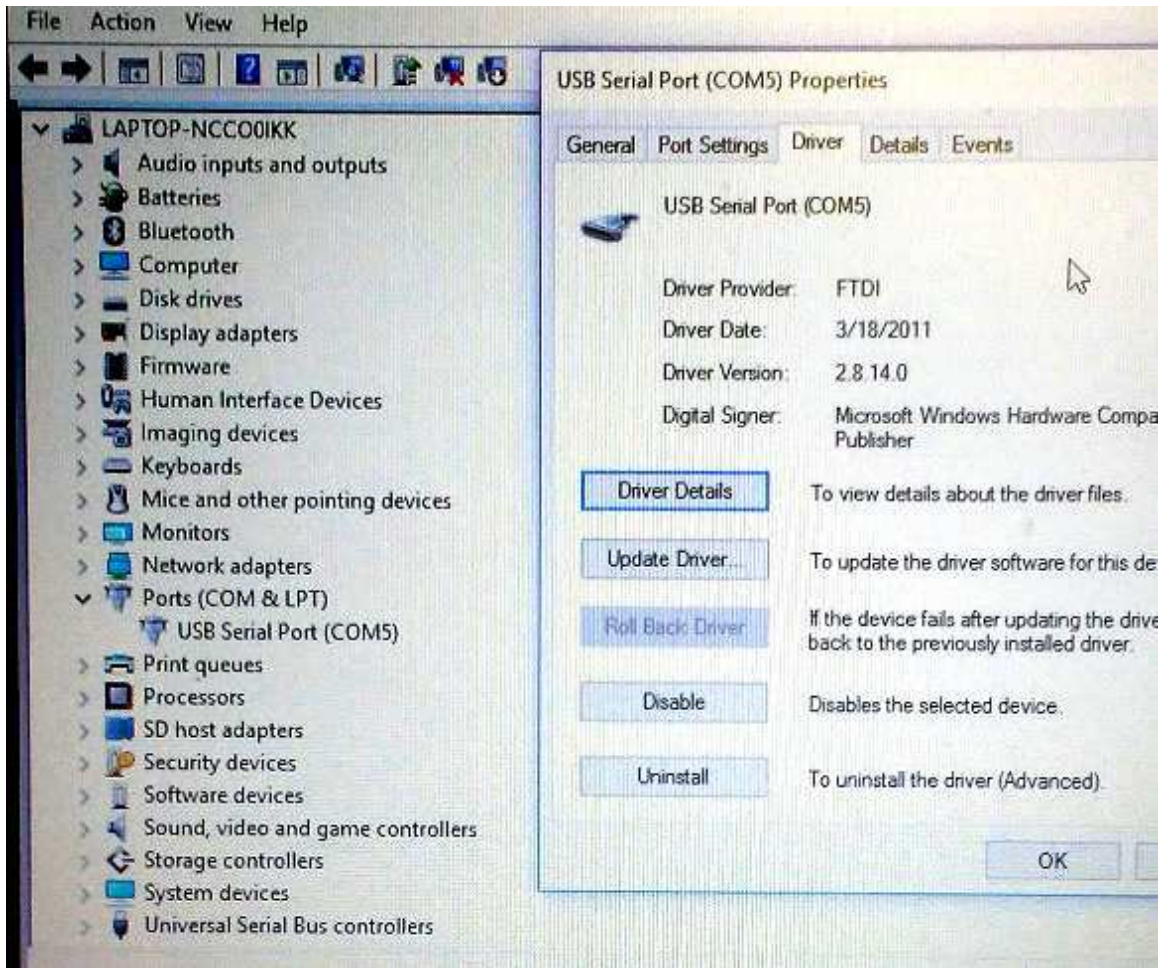
What follows is more details about the two main software install issues that you may encounter. This information focuses on a back-up install process for both of these two areas. And again, attention to detail must be an important part of this process! The examples that follow involve the Baercom-PC software for the Baercom system, but other EFI software programs are similar.

### 1. Resolving USB issues

As mentioned above, simply plugging the EFI device into your computer the first time may not always result in a correct installation of the drivers. Also, other changes to your computer may result in the EFI software not being able to find the EFI device, even if everything worked fine last week!

You must use the Device Manager to evaluate the EFI device USB interface. The easiest path to Device Manager is actually typing this into the search bar along the bottom of the screen, to the far left, but to the right of the Start button. At some point as you type "Device Manager" in, the list above will show "Device Manager" at the top of the list, and you can double click over that to actually start the Device Manager up. And note that the EFI device does NOT need to be (probably should not be) turned on, in order for this process to work!

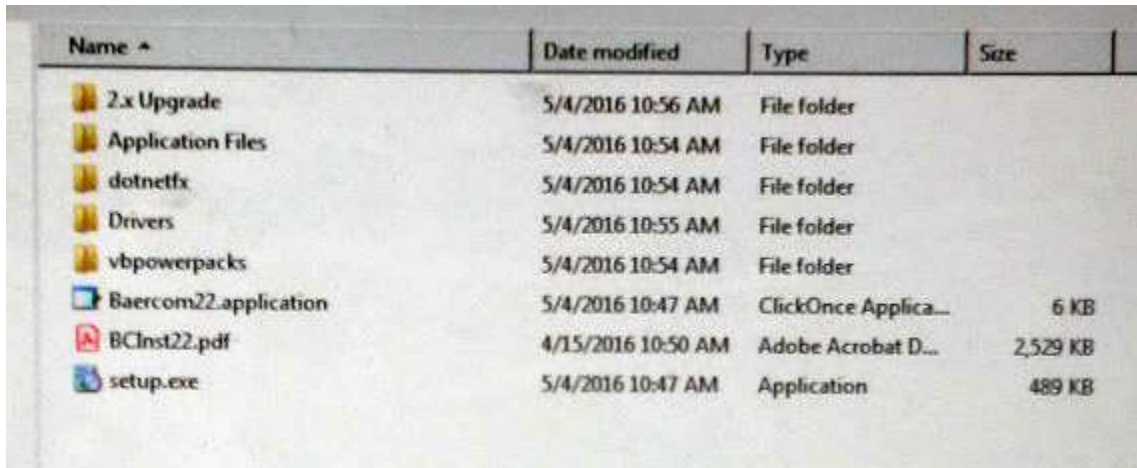
Look at the (poor) image below, and focus on the list to the left for now. This list shows the various devices and systems currently in place on your computer. If the EFI USB interface is working correctly, the EFI device will show up under the PORTS category, and say "USB Serial Port (Comx)" as shown on this picture. The EFI device USB interface is working correctly if this is what you see.



If there is a problem with the UFI device USB interface, the UFI USB device will show up somewhere else on this list, and with a yellow triangle in front of whatever name the operating has assigned to it; "USB interface", "Unknown device", or something else.

Now look at the right side of the picture above. If there is a problem with the UFI USB device, you will need to "Alt-Click" over the yellow triangle in order to bring up a menu for that device, then click over the "Properties" menu entry, usually at the bottom. After you do that, you will see the Properties window for the UFI USB device, and it will look similar to the right-hand portion of the above image. In order to repair the UFI USB interface, you will need to click over the "Update Drivers" button on this window. This allows you to either initially install the drivers, or to attempt a repair by re-installing the drivers. Note that there are two components to the UFI USB drivers, and so this process will generally need to be done TWICE.

Once you click over the "Update Drivers" window, a new window will show, which will provide a number of options. One option is having the operating system go out and look for the drivers. If your computer is connected to the internet, you can try this again if you like, and this could repair everything. But you will usually need to select the "Browse" option in order to direct the operating system to look into the UFI software folder for the drivers; This should already be present on your computer. Please look at the picture below.



Name *	Date modified	Type	Size
2.x Upgrade	5/4/2016 10:56 AM	File folder	
Application Files	5/4/2016 10:54 AM	File folder	
dotnetfx	5/4/2016 10:54 AM	File folder	
Drivers	5/4/2016 10:55 AM	File folder	
vbpowerpacks	5/4/2016 10:54 AM	File folder	
Baercom22.application	5/4/2016 10:47 AM	ClickOnce Applica...	6 KB
BCInst22.pdf	4/15/2016 10:50 AM	Adobe Acrobat D...	2,529 KB
setup.exe	5/4/2016 10:47 AM	Application	489 KB

This picture shows the top level folder/program list for the Baercom-PC software. Note the "Drivers" folder. There are a number of items inside this folder, and the specifics are not important. When the "Update Drivers" window asks you to "browse", you need to browse to this "Drivers" folder inside the UFI software main folder. You don't want to select any of the items inside the "Drivers" folder, just point the operating system to the "Drivers" folder, and the operating system will look inside, and take what it needs. After receiving this information, the operating system should get the information it needs, and install the driver component. And note again, you will usually need to go through this "update drivers" process twice, since the UFI USB interface involves two interface components.

Once this process is done (usually twice), the Device Manager list should show the UFI device correctly as seen in the top picture. You should be able to access the UFI device from the UFI software as a result.

## 2. Installing the UFI Software



The generally described install process for UFI software involves directing the computer to run the "Setup.exe" program in the UFI software main folder. If you look back at the picture directly above, you will see this program at the bottom of the list. Double-clicking over this Setup.exe program usually results in the computer installing the UFI software, then placing a Start Menu item in the start menu structure as well. This last step allows the software to be easily started.

The install log text above shows that the actual installation of the UFI software failed for two reasons. The first reason was that the target computer had "S-mode" active, which prevented non-store programs from being installed on that computer. This S-mode was then carefully cleared to remove this restriction. The second reason the software install failed was that a component of the UFI software named "VB PowerPacks" failed to install correctly, and this will prevent the UFI software from working correctly.

When this happens, you need to use an alternate install path first, in order to install the UFI software. This alternate install path uses the "Click Once Application" item in the UFI software folder. Looking back at the picture above, this item is the third from the bottom in that list, and the "ClickOnceApplication" attribute shows up under File Type, towards the right. Clicking once over the "Baercom22.application" all the way to the left of this line directs the operating system to evaluate this file, install any required components, and then start that program. The missing component is named something like "Dot Net v3.5 framework" extension (or similar), and you will need to supply permission for this component to be installed on your computer. After that, this component will be installed, then the UFI software (Baercom-PC software in our example) should then start up correctly. You can then close the software.

In the process log above, we ran the "Setup.exe" program again, after this step. The reason is that the "ClickOnce" installation does NOT add a Start Menu item to make it easier to start the program. If you run the "Setup.exe" program after successfully completing ClickOnce, the Setup installation will (should) finish correctly, and the Start Menu item should be added.

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At this point everything should be working happily again. If you still need help, send us an email (address at top).