iOptron[®] SmartStar[®] Cube[™]-A 8401 Hand Controller Firmware Upgrade Instruction

TYPICAL MISTAKES AND ERRORS WITH FIRMWARE UPGRADE:

- 1. Invalid Port Number: in Device Manager, make sure you have the correct COM port number for CP210x;
- 2. Do not check Update Type as Object Catalog;
- 3. Wrong ".bin" file: make sure you have the correct ".bin" file for firmware upgrade.
- 4. If you upgrade process is interrupted or get a blank screen, refer to the steps at the end of this instruction to re-load it.

UPGRADE INSTRUCTIONS

- 1. Download and save USB-to-COM port driver based on you Windows operation system
- 2. Download and install iOptron Downloader
- 3. Download 8401 hand controller firmware
- 4. Make sure the mount is power off and the USB cable is not connected to the PC.

5. Install cp2101(usb2com) driver



Choose the appropriate driver for your OS. In this case is a Windows XP operation system. For Windows Vista, select CP210x_VCP_Win2K_XP. Double click on it, and an InstallShield Wizard window will be displayed:



Click "Next".

Silicon Laboratories CP210x VCP Drivers for Windows 2000/XP - InstallS.	💌
License Agreement Please read the following license agreement carefully.	4
END-USER LICENSE AGREEMENT IMPORTANT: READ CAREFULLY BEFORE AGREEING TO TERMS THIS PRODUCT CONTAINS CERTAIN COMPUTER PROGRAMS AND OTHER THIRD PARTY PROPRIETARY MATERIAL (BLICENSED PRODUCT?, THE USE OF WHICH IS SUBJECT TO THIS END-USER LICENSE AGREEMENT. INDICATING YOUR AGREEMENT CONSTITUTES YOUR AND (IF AFPLICABLE) YOUR COMPANT'S ASSENT TO AND ACCEPTANCE OF THIS END-USER LICENSE AGREEMENT (THE "LICENSE" OR "AGREEMENT"). IF YOU DO NOT AGREE WITH ALL OF THE TERMS, YOU MUST NOT	×
I accept the terms of the license agreement I do not accept the terms of the license agreement InstallShield Kack Next > Cancel	

Select "I accept the terms of license agreement", and click "Next"

Silicon La	boratories CP210x VCP Drivers for Windows 2000/XP - InstallS 🔀
Choose I Select fo	Destination Location older where setup will install files.
	Install Silicon Laboratories CP210x VCP Drivers for Windows c:\SiLabs\MCU\CP210x Change
InstallShield -	< Back Next > Cancel

Using the default installation path, c:\SiLabs\MCU\CP210x, or specify your own path by click "Change". Click "Next". Then click "Install".



Click "Finish" when installation finished.

6. Plug the USB cable to the USB port on your PC, plug the other end of the USB cable to the hand controller. Turn the mount power ON.

7. Install the Hardware

The computer will display a "Found New Hardware Wizard" window:



Select "No, not this time" and click "Next".

Found New Hardware Wize	ard
	This wizard helps you install software for: CP2102 USB to UART Bridge Controller If your hardware came with an installation CD or floppy disk, insert it now.
	O Install the software automatically (Recommended) O Install from a list or specific location (Advanced) Click Next to continue.
	(Back Next) Cancel

Select "Install from a list or specific location" and click "Next".

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ct the folder that contains drivers for your hardware	
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	t the folder that contains drivers for your hardware

Select "Search for the best driver in these locations," and check "Include this location in the search." Click on "Browse" and select the cp210x driver from directory c:\SiLabs\MCU\CP210x\Win2K XP, click OK.

Found New Hardware Wizard
Please choose your search and installation options.
 Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
Include this location in the search:
C:\SiLabs\MCU\CP210x\Win2K_XP Browse
O Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next> Cancel

Click "Next". The computer will start to install the driver for the USB2COM converter. When the installation is done, click "Finish".

Found New Hardware Wiz	ard
Found New Hardware Wiz	Ard Completing the Found New Hardware Wizard The wizard has finished installing the software for: CP210x USB Composite Device
	Click Finish to close the wizard.
	K Back Finish Cancel

Now your computer is ready for Firmware Upgrade. However, you need to find assigned COM port number for the USB connection first. To do so, right click "My Computer", and click "Properties"



Click "Hardware", click "Device Manager"

System Re	store Autom	atic Updates	Remote
General	Computer Name	Hardware	Advanced
Device Man	ager		
S Th	e Device Manager lists al	the hardware device	es installed
and but	operties of any device.	revice Manager to cr	hange the
	(Device Ma	anager
Dian			
Drivers	iver Signing lets you make	sure that installed d	ivers are
C0	mpatible with Windows. V	/indows Update lets	you set up
ho	w Windows connects to V	Vindows Undate for	drivers
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Double click "Ports(COM & LPT)", find out the COM number and write it down (in this example, it is COM3)

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File Action View Help	
🗈 💘 Batteries	~
E Biometric	
🗄 🖳 😼 Computer	
🕀 🦇 Disk drives	
庄 👰 Display adapters	
🗄 🥝 DVD/CD-ROM drives	
🗄 🖾 Human Interface Devices	
🖻 🗃 IDE ATA/ATAPI controllers	
🗄 🐗 IEEE 1394 Bus host controllers	
🗄 🤧 Imaging devices	
🗈 🦢 Keyboards	
Mice and other pointing devices	
🕀 🦢 Modems	
🕀 😼 Monitors	
🔁 🕮 Network adapters	
🖻 📕 PCMCIA adapters	
🖅 🖉 PCMCIA and Flash memory devices	
English COM & LPT)	
CP210x USB to UART Bridge Control er (COM3)	
🕀 🐲 Processors	
🔁 👼 Secure Digital host controllers	-
🙃 🖗. Sound video and name controllers	

8. Upgrade the Firmware Double click and open "iOptron Downloader"



lioptron Downloader V2.01	
Serial Port:	🕒 Help(<u>H</u>) 🏠 Home(<u>A</u>)
Open Data File(<u>O</u>)	Update Type: 🏾 🏵 Main Program 🔹 O Object Catalog
Start Dermilard(D)	
Start Download(D)	
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On the interface, select appropriate port using pull-down menu (in this case, COM3):

Serial Port: COM1 COM2 Open Data COM3 COM3 COM4 COM5 COM6 Start Downl COM7 COM8 COM9 COM8 COM8 COM9	loptron Downloader V2.01	
0%	Serial Port: COM1 COM1 COM2 Open Data FCOM3 COM4 COM4 COM5 COM6 Start Downl COM7 COM8 COM9	● Help(E)
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Click "Open Data File", and select "8401_Ver090701Eng.bin" file and click "Open".

	COMI	T	0	Help(<u>H</u>)	Home(<u>/</u>
0	Open			2	
Open	Look in: D	Firmware and ASCOM	- + E	™	log
	8401_Ver0	190701Eng.bin			
Start I	iOptron Do	mware upgrade.pdf wnloader Setup.exe			
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	File name:	8401_Ver090701Eng.bin		Open	
	File name: Files of type:	8401_Ver090701Eng.bin		Open Cancel]
	File name: Files of type:	8401_Ver090701Eng.bin		Open Cancel]

Click "Start Download". iOptron Downloader will display "Please reset the GOTONOVA(GOTOSTAR), Waiting for connection..."

On the hand controller, press "MENU", and select "Set Up Controller" and scroll down to "Upgrade firmware", press "ENTER" and the upgrade starts.

🗣 iOptron Downloader V2.01
Serial Port: COM3 💌
Open Data File(O) Update Type:
C: Documents and Settings/Desktop/Firmware and ASCOM/8401_Ver090701Eng.bin
Stop Download(D)
Please reset the GOTONOVA(GOTOSTAR),Waiting for connection Connected. Processing Please wait
20%

iOptron Downloader V2.01				
Serial Port: COM3 -	ſ	•	Help(<u>H</u>)	🚹 Home(<u>A</u>)
Open Data File(<u>O</u>)	Update Type:	Main Program	C Object	Catalog
C: Documents and Settings Desktop	Firmware and ASCO	M/8401_Ver090701En	g.bin	
Start Download(<u>D</u>)				
Please reset the GOTONOVA(GOT Connected. Processing Please wait Download successfully finished!	OSTAR),Waiting for	connection		
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Now the upgrade is complete.

9. Double check your hand controller time zone and site settings.

10. What can I do if the firmware upgrade was interrupted, or after download the screen is blank or does not respond?

- Turn on the mount to power on the hand controller (the key pad should be lit)
- Click on the iOptron Downloader Change the Serial Port to the right COM port in the pull-down menu (example: COM4)
- Click on **Open Data ile(O)** button to select the right Firmware for your hand controller. (example: 8401_Ver090701.bin)
- DON'T click on Start Download (D) button yet. Turn the mount power off.
- Turn the mount power back on. Right after hearing the "beep", click on Start Download
 (D) button. The timing is very important. The downloading process will begin
- When the download is successfully finished, turn the mount off and back on to check the hand controller. Double check the settings, such as time and site info, mount type, anti-backlash, to see if they are changed
- You may need to practice a few times to get the procedure work correctly.