## **Controller Programming**

The controller has two small electrical ports on the front of it. The port on the right is a 5-pin M12 BNC connector for ethernet network communications. This port will be used for making the communication connection to the display and for programming the controller software.

The sections below will explain how to set the IP address and how to program the controller software. There may be additional computer configuration required to enable communication between the computer and controller. The first section will cover this computer configuration. These instructions assume that the computer is connected directly to the controller.

Under this normal situation, the steps for Computer Configuration are to be performed first. This configuration would be set each time that the computer needs to be connected to the controller. This configuration is not a one time setup, unless the settings are not undone. It is assumed that the setting changes are undone and restored to original, but that does not have to be the case. This document does not explain every situation where this computer configuration can be kept permanently or reset for each time needed.

## Computer Configuration

- This guide assumes a Windows operating system on the computer.
- The security settings of your computer might not let you make some of these changes.
  - Communicate with your computer administrator if needed.
- The IP address of the computer should be changed.
- To change the computer's network settings click on the corresponding icon pictured here and click "Network and Internet Settings". This icon will normally be on the lower right corner of the screen.



• Next, click on "Ethernet".



• Next, click "Change adapter options".

← Settings		×
命 Home	Ethernet	
Find a setting	Unidentified network No Internet	
⊕ Status	Related settings Change adapter options	
₽ Ethernet	Change advanced anaring options	
ଳ Dial-up	Network and Sharing Center Windows Firewall	
$r_{2}^{N}$ Airplane mode	Have a question?	
(۱۹) Mobile hotspot	Troubleshooting network connection issues	
(바 Data usage) (빠 Proxy	Get help         Give feedback	
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• Right click on "Ethernet" and click "Properties".



- Take a note of what is currently in this window so that you may restore it to normal when finished.
- Select "Use the following IP address" and enter the following

ternet Protocol Version 4 (TCP/IPv	4) Properties
General	
You can get IP settings assigned au this capability. Otherwise, you need for the appropriate IP settings.	tomatically if your network supports to ask your network administrator
Obtain an IP address automatic	cally
IP address:	192 . 168 . 1 . 20
Subnet mask:	255.255.255.0
Default gateway:	
Obtain DNS server address aut	tomatically
• Use the following DNS server a	ddresses:
Preferred DNS server:	
Alternate DNS server:	
Validate settings upon exit	Advanced
	OK Cancel

- Press OK
- Press Close.
- The "Network Connections" window is probably still open. You may keep it open to undo this change afterward, or you may close it and reopen it later.
- If you have not already done so, you may now plug in the network cable that connects your computer to the controller.
- After you are done with the network connection to the controller, you may follow these steps to restore your computer's configuration to how it was before.

## Controller IP Setup

- Connect your computer to the controller using the provided network cable.
- Make sure that the controller is turned on.
- Open the Netburner IPSetup utility.
- Make sure that the correct unit is selected.
- The IP address should be set to 192.168.1.135, subnet mask 255.255.255.0.
- Enter the data to match this image.

NetBurner IPSetup V2.3		×			
NDK Settings IP 192 . 168 . 1 . 13		Select a Unit 			
Network Mask 255 . 255 . 255 . 0 GateWay 192 . 168 . 1 . 99	Set>				
DNS 192.168.1.99		< >			
Baudrate 115200		, Search Again			
Launch Webpage Advanced Help Close					

- After verifying the settings click "Set" in the center of the window.
- The "Unit" that was selected may disappear and then reappear. Regardless after about 20 seconds, or any message indicating success, you may click "Close".

## Controller Software Programming

- Connect your computer to the controller using the provided network cable.
- Make sure that the controller is turned on.
- Open the Netburner AutoUpdate utility.

IP address:	192	. 1	68 .	1		135	Find
FileName:							Browse
Rebool	t when c	omplet	е	Γ	Upo	date	Dismiss

- Type in the IP address 192.168.1.135 and click "Browse" to find the controller software file on your computer.
- The software file that you will be selecting from the "Browse" will be something like: "SureBatch\_v\_2\_0\_2\_APP.s19".
- After you have selected the correct software file, click "Update".
- Typically within 30 seconds the programming should complete.
- The following message indicates success.

🎦 Aut	AutoUpdate	×	×
IP addr FileNar	Programming Complete without Error.		1 se
V	ОК		niss

- Click "OK" and then "Dismiss".
- You may now disconnect the controller.