

ETHERNET N-BUTTON

Push Notification Quick Start Guide



SERIAL PORT TOOL

Introduction

Real-Time Status & Control

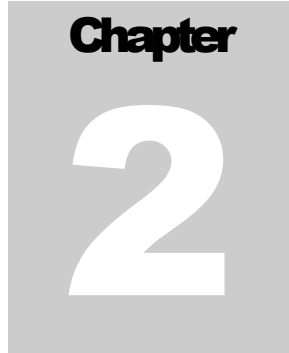
Ethernet Push Notification Board that allows you to connect a contact closure to the board and send an email or text message when the circuit is closed. The board will communicate the contact closure information to your computer through a Ethernet connection. N-Button Software will then send a text or email from the computer to your selected recipients.

All the Features You Need...

- Send SMS or Email Message
- Compatible with ANY Contact Closure Sensor
- Onboard Ethernet Interface Module
 - Communicate over your network
- N-Button Software
 - Point & Click Interface
 - Use to Configure Messages

Step-By-Step Instructions

This Manual will give you step-by-step instructions for connecting your Ethernet Push Notification Board and setting up N-Button Software to send text and/or emails.



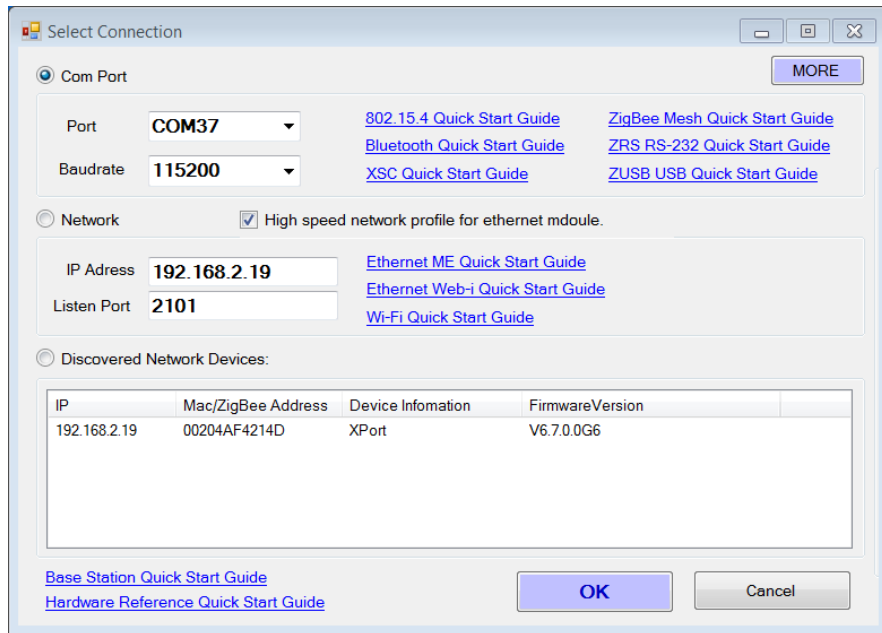
Connect Board to Network

Ethernet Communications

This section will give you step by step instructions on how to access your controller using DHCP Addressing. If you would like to use a static IP Address that will be covered further on in the guide. This section assumes that you have a network with a windows-based machine running NCD Base Station.

TCP/IP Communications

The main method of communication to the Ethernet modules is a standard TCP Socket. This communication protocol makes use of Network Sockets to create point to point tunnels that data can flow through bi-directionally. In this way the computer that is controlling the board can send commands



Finding the MAC Address

You can find the MAC Address of the module in one of two ways. The first option is to look on the top of the Ethernet Module itself where it is printed.

The second way is to run NCD Base Station on a computer **DHCP and Static IP Addresses**

This module supports both DHCP and static IP Addressing. For communications reliability, especially via Remote Access, we recommend using a Static IP Address when you feel comfortable doing so. This will ensure that the device will always be where you expect it to be when you try to connect to it.

DHCP

DHCP stands for Dynamic Host Configuration Protocol and basically means that your router will assign the first available IP Address in the list of IP Addresses and assign that to your device. While this technology makes network devices very easy to use and locate it is not as reliable in that certain circumstances will cause the IP Address it assigns to change or have two devices on the same IP Address. DHCP is what these modules ship out as. In this way we can ensure that the module will successfully connect to any network regardless of IP Range.

Static IP Address

The downside of this method is that, if done incorrectly, can make the module unreachable through any standard means. This usually happens when an IP Address is statically set to an IP Address outside of the range of the router, or another device on the network obtains this IP address via DHCP. For improved reliability the IP Address assigned to this Module should be reserved on your router.

Storing a Static IP address to the controller:

1. Open your favorite web browser and enter the controller's IP address into the URL, then click Enter.
2. When asked for Username and Password click enter as by default the username and password are not enabled.
3. On the left menu navigation click Network.
4. Here you will see Obtain IP address automatically is selected which is what we recommend for most applications.
5. To set a Static IP address into your module click the radio button labeled Use the following IP configuration:
6. Enter your required settings. (Examples shown below)
7. Once your settings are entered click the OK button below.
8. Click Apply Settings in the left navigation menu to ensure your settings are stored to the module.
9. Close your web browser, then power cycle the board to ensure you are now using the Static IP address. You may use Base Station to discover the device if needed.

The screenshot shows the LANTRONIX web interface for Network Settings. The top header includes the LANTRONIX logo, Firmware Version: V6.7.0.0G6, and MAC Address: 00-20-4A-F4-21-4D. The left navigation menu is on the left, with 'Network' selected. The main content area is titled 'Network Settings' and contains the following sections:

- Network Mode:** Wired Only (dropdown menu)
- IP Configuration:**
 - Obtain IP address automatically
 - Use the following IP configuration:
 - IP Address: 192.168.2.19
 - Subnet Mask: 255.255.255.0
 - Default Gateway: 192.168.2.1
 - DNS Server: 8.8.8.8
- Ethernet Configuration:**
 - Auto Negotiate
 - Speed: 100 Mbps 10 Mbps
 - Duplex: Full Half

An 'OK' button is located at the bottom of the configuration area.

N-Button Communication and Scan Channel Setup

N-Button

Communicating to the Board

1. Download and install the version of N-Button Pro or N-Button Lite that you purchased with the board.

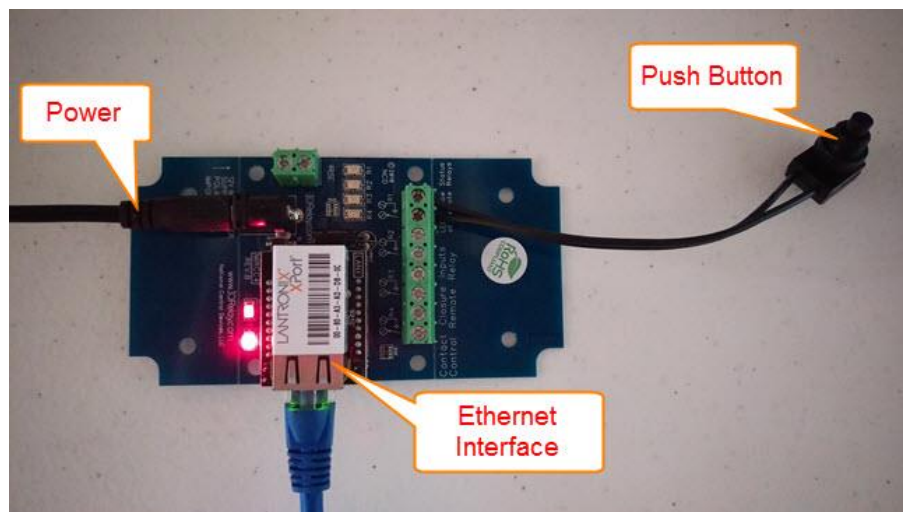
N-Button Lite:

<http://serialporttool.com/download/NButton/NButtonLite.zip>

N-Button Pro:

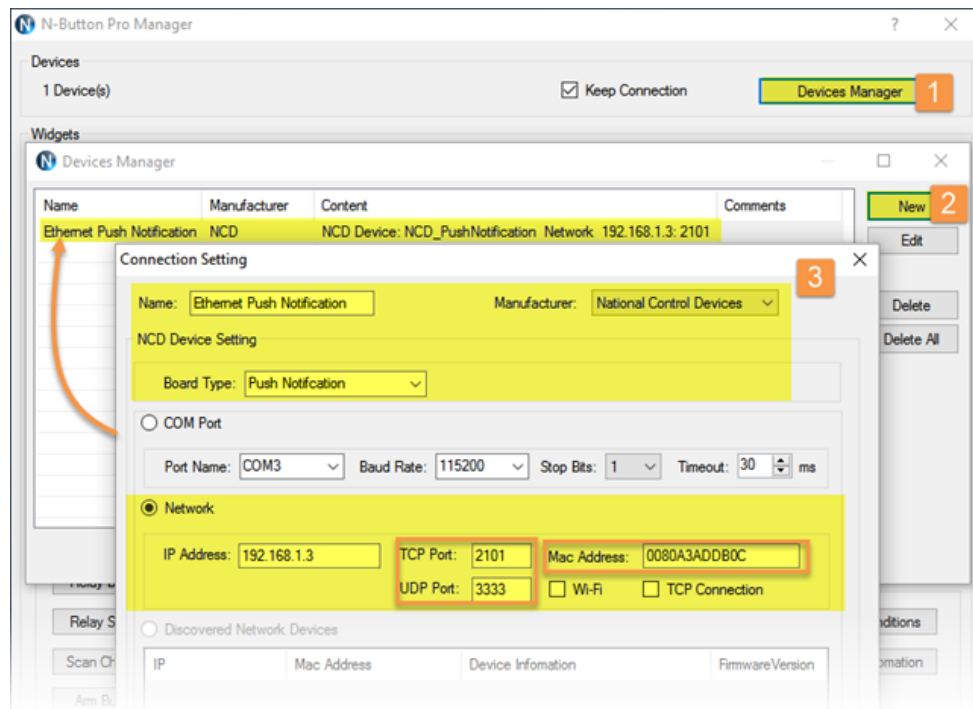
<http://serialporttool.com/download/NButton/NButtonPro.zip>

2. Plug in power and connect Ethernet Push Notification board to your computer.



3. Run N-Button. Click Device Manager → New to add Wi-Fi push notification board

SERIAL PORT TOOL



Manufacturer -> National Control Devices

Board Type -> Push Notification

IP Address/Mac Address -> It should be shown on the Discovered Network Devices list automatically. If not, you can input it directly if you know the IP address.

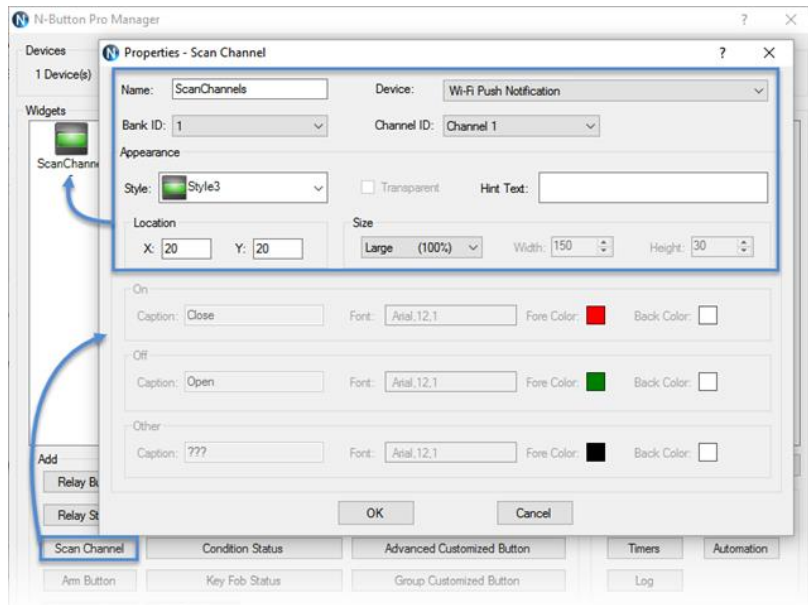
TCP/UDP Port -> Keep default setting for TCP Port (2101) and UDP Port (3333).

Mac Address -> Input the Mac Address, which is on the Ethernet interface module.

Note: Ethernet push notification board can be connected to more than one computer. If you have three computers have N-Button installed, run and connected with the board. The Ethernet push notification board will communicate with all off them if you set up like above. If you have TCP Connection checked, the board will communicate with ONE computer only.

-> Click OK for above panels, and back to N-Button Manager panel.

4. Click Scan Channel to open Properties – Scan Channel. Select Device, Bank ID, Channel ID, Style for Scan Channel widget.



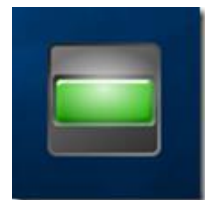
Once you have selected the Device and Style of your widget Click OK to close Scan Channel Window and return to N-Button Manager Window.

You will now see the Scan Channel widget you created showing on your desktop with Red color.

Using a dry contact (no voltage) close the contacts of the input you have set, you will see the Scan Channel widget on your desktop turn to Green. Release the button, the widget turns to red again.



The Ethernet Push Notification board is now working with N-Button software. The widget you created is now showing the status of the input. To send text message and/or email continue to the next page to setup.



Text/Email Setup

N-Button Manager

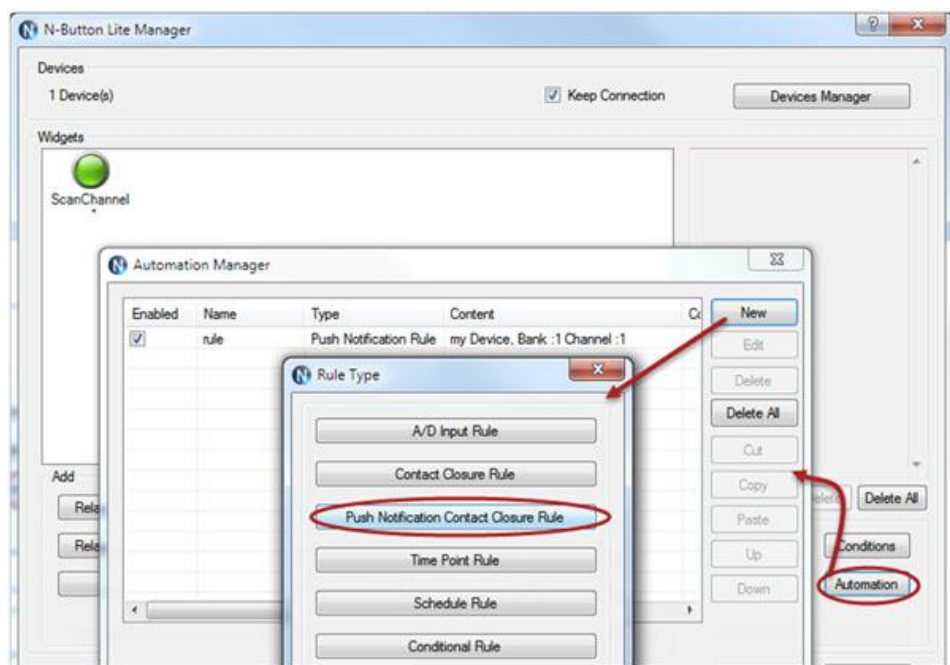
Setting up Your First Text/Email

1. Right click on the widget you just created and select N-Button Manager to open N-Button Pro/Lite Manager again.

-> Click Automation to open the Automation Manager Window.

-> Click New in the Automation Manager Window to open the Rule Type Window.

-> Click Push Notification Contact Closure Rule

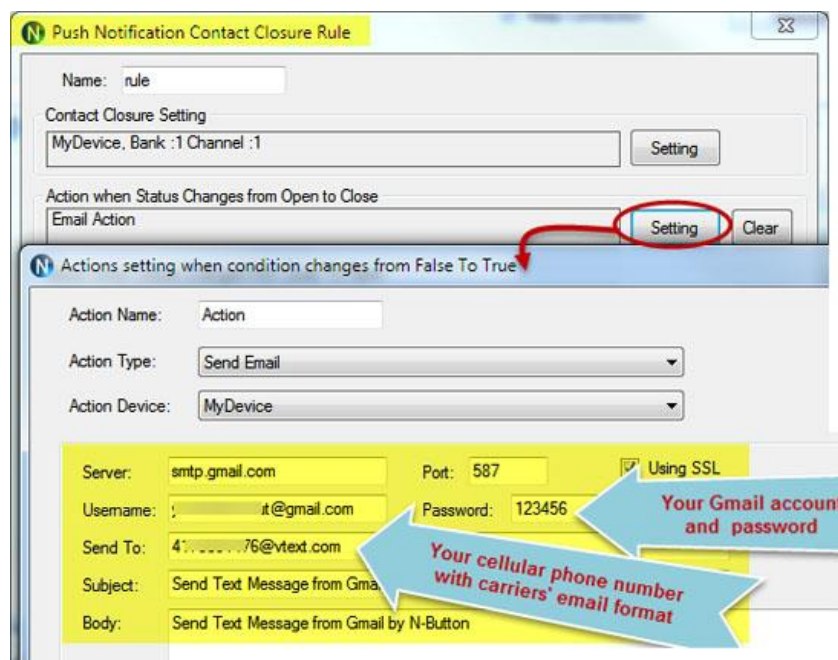


2. Select Settings under Push Notification Contact Closure to select the device you created and the channel you want to use.

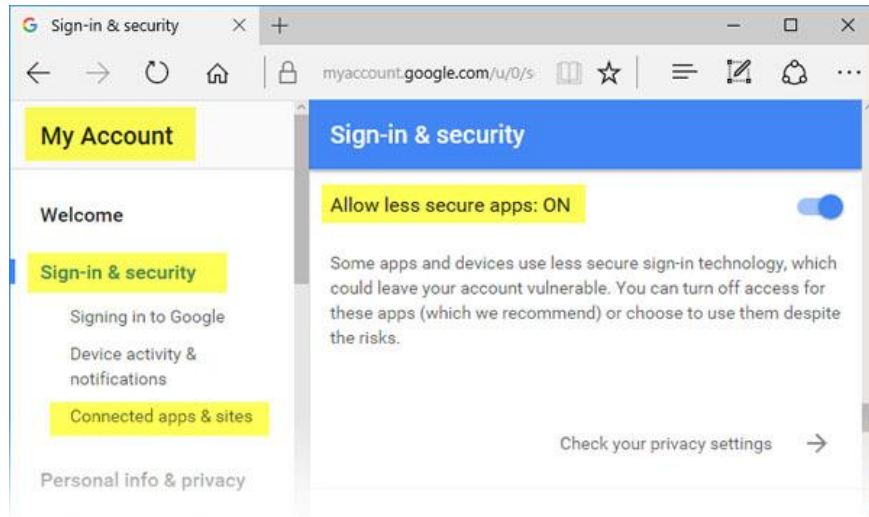
Select Settings under Action When Status Changes from Open to Close. Under Action Type select Send Email. Enter the Gmail account information you will be using to send the email. Then enter the address where you want the email sent, for more than one recipient separate the addresses with a comma. Add your Subject and message.

You can also set a message for other actions such as when the contact closure opens or send messages in intervals until the contact closure opens.

-> Click OK in all open windows and return to the desktop.



3. After finishing all above settings, all recipients will receive an email once the contact closure input on the board changes state. To test, close the contact input on the push notification board and check your email



Note: *If you use Gmail, you need turn on for “**Allow less secure apps**” on your Gmail Account
-> **Sign-in security panel**, shown as below.*