PROLON

Easy Setup

Prolon Cloud Communication

BEFORE GETTING STARTED

- Although not required, it is highly recommended to have a PL-485-BT converter handy in case a direct connection must be made.
- To enable cloud communication, there must be an internet connection available to:
  - The computer via WiFi or network cable.
  - The PL-NC2000 Network Controller via network cable.
- To setup and access the cloud communication, the user must have previously created a free Prolon account in Focus and must be logged into the account.

STEPS 1, 2 & 3 are required if the existing PL-NC2000 Network Controller is not running version 7.1 or higher. If the PL-NC2000 is already running this version, PROCEED TO STEP 4.

1 Install or update the Prolon Focus software to Focus 7.1 or higher. (www.proloncontrols.com)

2 Locate Network Controller firmware file (BIN file)
- Ensure that the BIN file is located in the Prolon Controls folder.
- File path on desktop:
  C:\ProLon\Focus v.7.1.0\NC2000_V710_ISP.bin
- The BIN file can also be downloaded from Prolon's FTP site:
  Click here to download.

3 Update the PL-NC2000 Network Controller firmware to Version 7.1 or higher (Figure 1-2)
- Connect to PL-NC2000 Network Controller via serial or TCP/IP
- Double-click the Network Controller icon
- Config → Device
- Press on "Reprogram" button
- Select the BIN file from Step 2, and press on "Start" button to update the Network Controller.

4 Set Network Controller IP Settings (Figure 3)
- Connect to PL-NC2000 Network Controller via USB, serial or TCP/IP
- Double-click the Network Controller icon
- Config → Communication
- Ensure the "Allow Cloud Communication" box is checked
- Set the IP mode to DHCP – OR – Static IP + enter valid Local Area Network settings (IP Address, Subnet Mask, Default Gateway)
- Press Apply
- Reset the PL-NC2000 Network Controller
  (Config → Device → "Reset" button)

Figure 1
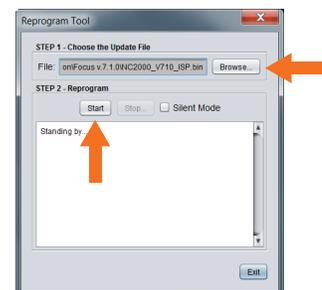
Figure 2
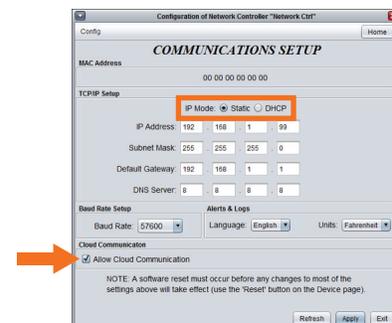
Figure 3

5 Retrieve NCID (Figure 4-5)

- Connect to PL-NC2000 Network Controller via USB, serial or TCP/IP
- Right-click the Network Controller icon
- Select "View NCID"
- Select "Copy to Clipboard"

Figure 4

6 Disconnect communication with the PL-NC2000 Network Controller

- Click on the "Disconnect" button in the Connection side panel

Figure 5

7 Claim the PL-NC2000 Network Controller (Figure 6-7)

- Access Connection menu:
  Project → Setup → Connection tab
- Select Type: "Cloud"
- Below, click on "Claim NC"
- Right click and "Paste" NCID. Press "Claim" button.
- Click on Save
- Click on the "Connect" button in the Connection side panel

Figure 6

8 Confirmation Cloud communication is active (Figure 8)

- Upon clicking on the "Connect" button, a green checkmark will appear thus confirming the communication is now active.
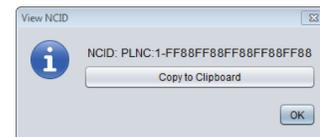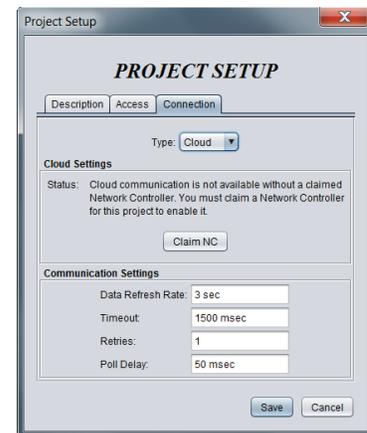
Figure 7

Figure 8

TROUBLESHOOTING CLOUD COMMUNICATION

Troubleshooting Tip 1: Ensure that the option to allow Cloud Communication is enabled in the configuration of the Network Controller:

Troubleshooting Tip 2: Cloud communication is disabled whenever someone is connected directly to the Network Controller using the traditional TCP/IP method. An active TCP/IP connection can be detected by looking at the CONN LED on the Network Controller. If the LED is ON, there is an active TCP/IP connection.

Troubleshooting Tip 3: For higher security setups, it may be necessary to open outgoing port 8080 towards proxy.prolon.net in your router to allow Cloud Communication to be achieved. Also, make sure traffic is not being blocked by a content filter.

Troubleshooting Tip 4: If your Network Controller's TCP/IP setup is set to "Static" instead of "DHCP", it may be necessary to ensure that its static IP address, subnet mask and default gateway are all still valid and that they allow it to function within the local subnet.

Troubleshooting Tip 5: Ensure the CABLE LED is continuously lit. This LED indicates that an electrically valid Ethernet connection is detected on the other side of the CAT5 cable. The LED should react immediately to the cable being plugged and unplugged. If the LED response is slow to react, the signal strength in the wire may be weakening. Ensure the cable is no longer than 330ft (100m). A repeater (switch or hub) may be necessary to boost the signal.

Troubleshooting Tip 6: Use the CONN LED to help diagnose the condition of your Network Controller. If the CONN LED is:

- Never blinking: The Network Controller cannot determine the IP address of proxy.prolon.net and therefore cannot attempt to connect to the Cloud. Check the DNS settings of the Network Controller. Alternatively, the checkbox to "Allow Cloud Communication" may not be set (see Troubleshooting Tip #1).

- Blinking Every 8 Seconds: The Network Controller has obtained the IP address of proxy.prolon.net (DNS is OK) but is not receiving any answer. Check that port 8080 in your Router is opened towards proxy.prolon.net (see Troubleshooting Tip #3).

- Blinking Every 30 seconds: The Network Controller can reach the Cloud server at proxy.prolon.net and is awaiting communication (Ready for Cloud Communication).

- Blinking Very Rapidly: The Network Controller can reach the Cloud server at proxy.prolon.net and is currently in communication with a Focus app user (Cloud Communication is Active).

- Steady On: There is an active TCP/IP connection to the Network Controller. An active TCP/IP connection will prevent Cloud, Serial and USB connections from occurring. Break the TCP/IP connection to allow Cloud Communication to resume.

Troubleshooting Tip 7: If you are having trouble simply signing into the Focus application, the following domains may need to be whitelisted in your router:

- www.googleapis.com
- firestore.googleapis.com
- *.firebaseio.com

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