Manuals+ — User Manuals Simplified.

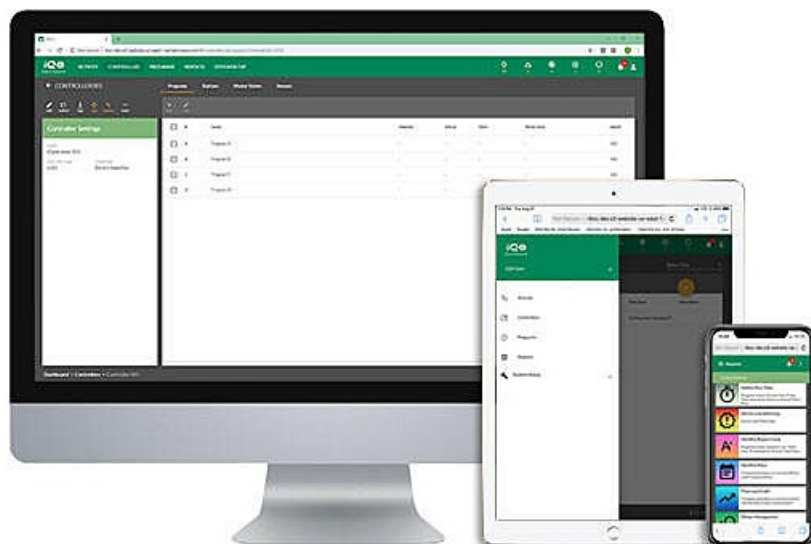# RAIN BIRD IQ4 Modular Multi Site Central Control User Guide

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RAIN BIRD IQ4 Modular Multi Site Central Control

Product Information

The NCC EN Cartridge is a hardware device that provides Ethernet connectivity to the IQ4 satellite controllers. It allows remote control and monitoring of irrigation systems through the IQ-Cloud platform. The cartridge can be configured using the NCC Configurator Software and must be set up with a static or reserved IP address, a unique port number, subnet mask, and gateway address. The router/firewall must be configured to allow inbound communication from IQ4-Cloud (Amazon Servers) to the site network. The IQ4 web interface is served from **https://iq4.rainbird.com** and talks to an API server located at **https://iq4server.rainbird.com**. The iq4server.rainbird.com service is served from a set of static IP addresses, and the iq4.rainbird.com site is served via Amazon CloudFront, which is a CDN that provides caching and geographical distribution.

Product Usage Instructions

1. Work with the site IT network personnel to set up a network static or reserved IP address and a unique port number for each IQ satellite controller.
2. Provide the network subnet mask and gateway address as well as the internet IP address for the router/firewall.
3. Set up port forwarding (or dynamic DNS) so IQ-Cloud can connect to the network router and be forwarded to the individual IQ satellite controllers.
4. If the firewall can only be configured to whitelist by IP address, find out what IP address your site is using to access IQ4 on CloudFront by following these steps:
    1. Open a command prompt by pressing the windows key and typing `cmd' then pressing the enter key.
    2. In the command prompt window, type `nslookup iq4.rainbird.com' (without the quotes).
    3. The result will include a list of four IP addresses, which are your site's local CloudFront addresses.
    4. Once the four addresses are found, whitelist these along with the IP addresses from the previous page.
5. Launch the NCC Configurator Utility on the computer and select the computer COM Port number to which the Null Modem Cable is connected.
6. Click on the Read Configuration button to retrieve the communication configuration settings from the NCC Cartridge.
7. Enter/edit configuration settings and click Send Configuration button to send configuration to the NCC cartridge.
8. For LX-IVM, turn the controller dial to Advanced Settings and choose Configure Cartridge.
9. Perform a Reverse Sync to load all controller data into IQ4 from the controller.

Steps to setup a NCC EN Cartridge for IQ4 Cloud

- Work with the Site IT Network Personnel to setup the network parameters
- Install the EN Cartridge
- Configure the NCC EN Cartridge (NCC Configurator)
- Setup controller in IQ4
- Perform a Reverse Sync to load all controller data into IQ4 from the controller

Work with the Site IT Network Personnel to setup the following:

1. **A**. Setup a Network Static or Reserved IP Address and a unique Port Number for each IQ Satellite Controller
2. **B**. Provide the Network Subnet Mask and Gateway Address

3. **C**. Provide the Internet IP Address for the Router/ Fire Wall
4. **D**. Setup Port Forwarding (or Dynamic DNS) so IQ Cloud can connect to the Network Router and be forwarded to the individual IQ Satellite Controllers

NOTE: Inbound communication from IQ4 Cloud (Amazon Servers) to the site network is identified on pages 6 9

- The IQ4 web interface is served from https://iq4.rainbird.com. This interface also talks to an api server located at **https://iq4server.rainbird.com**
- If the firewall can be configured to whitelist sites by DNS names, these two will be sufficient. However, if the firewall can only be configured to whitelist by IP address, then additional steps must be taken
- The iq4server.rainbird.com service is served from a set of static

  IP addresses:
    - 54.183.11.63
    - 54.241.246.218
    - 54.183.30.162
    - 50.18.155.177
    - 54.219.42.103
- The iq4.rainbird.com site is served via Amazon CloudFront, which is a CDN that provides caching and geographical distribution allowing for sites around the world to access the content from a fast, local data center. The following steps are required to find out what IP address your site is using to access IQ4 on CloudFront

Cartridge Setup

1. Open a command prompt by pressing the windows key and typing 'cmd' the pressing the enter key
2. In the command prompt window, type ' nslookup iq4.rainbird.com' (without the quotes)
3. The result will include a list of four IP addresses, which are your site's local CloudFront addresses
4. Once the four addresses are found, whitelist these along with the IP addresses from the previous page
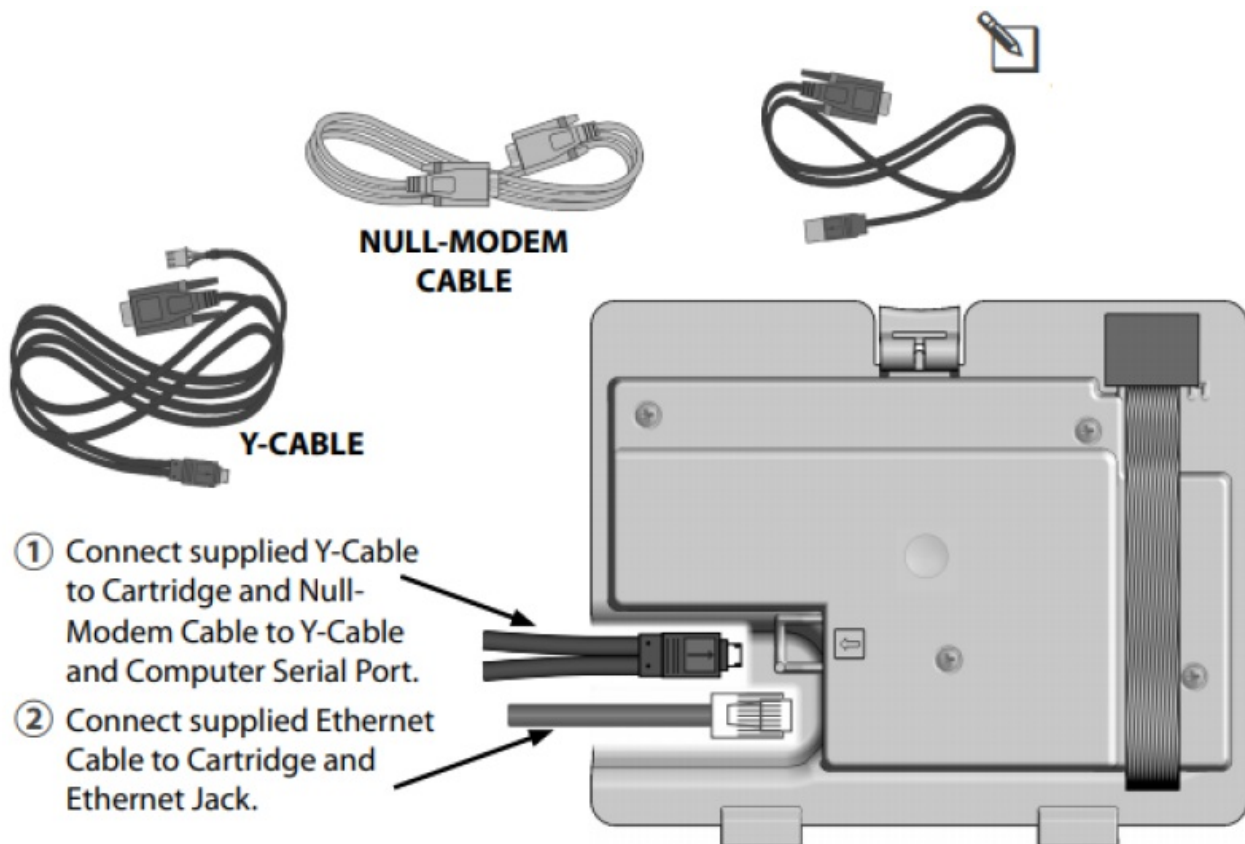
Here is an example:

```
CA.  Administrator: Command Prompt                        —    □    ×

Microsoft Windows [Version 10.0.18363.657]
(c) 2019 Microsoft Corporation. All rights reserved.

I:\>nslookup iq4.rainbird.com
Server:  tucpsvr11.rainbird.local
Address:  192.168.150.172

Non-authoritative answer:
Name:    d2qlh1w3v7ug1c.cloudfront.net
Addresses:  2600:9000:201f:8c00:14:bf47:ec00:93a1
          2600:9000:201f:6e00:14:bf47:ec00:93a1
          2600:9000:201f:6000:14:bf47:ec00:93a1
          2600:9000:201f:8a00:14:bf47:ec00:93a1
          2600:9000:201f:a600:14:bf47:ec00:93a1
          2600:9000:201f:200:14:bf47:ec00:93a1
          2600:9000:201f:b000:14:bf47:ec00:93a1
          2600:9000:201f:b600:14:bf47:ec00:93a1
          13.226.254.118
          13.226.254.91          IP addresses to whitelist
          13.226.254.57
          13.226.254.47
Aliases:  iq4.rainbird.com
```

CONNECTIONS

NULL-MODEM CABLE

Y-CABLE

① Connect supplied Y-Cable to Cartridge and Null-Modem Cable to Y-Cable and Computer Serial Port.

② Connect supplied Ethernet Cable to Cartridge and Ethernet Jack.

NOTE: Use a USB to SERIAL CABLE if computer does not have a serial port.

IQ NCC Configurator Software

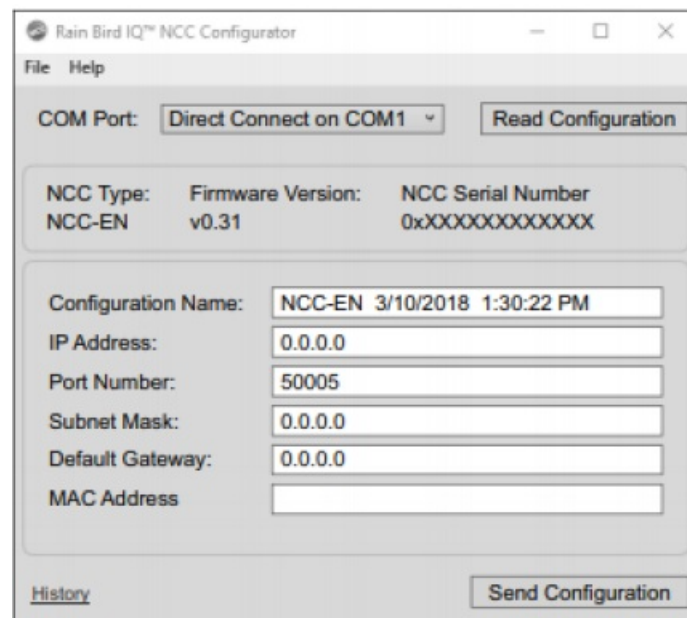Go to **https://www.rainbird.com/products/iq4** platform , download, extract, and install the software on a Windows computer
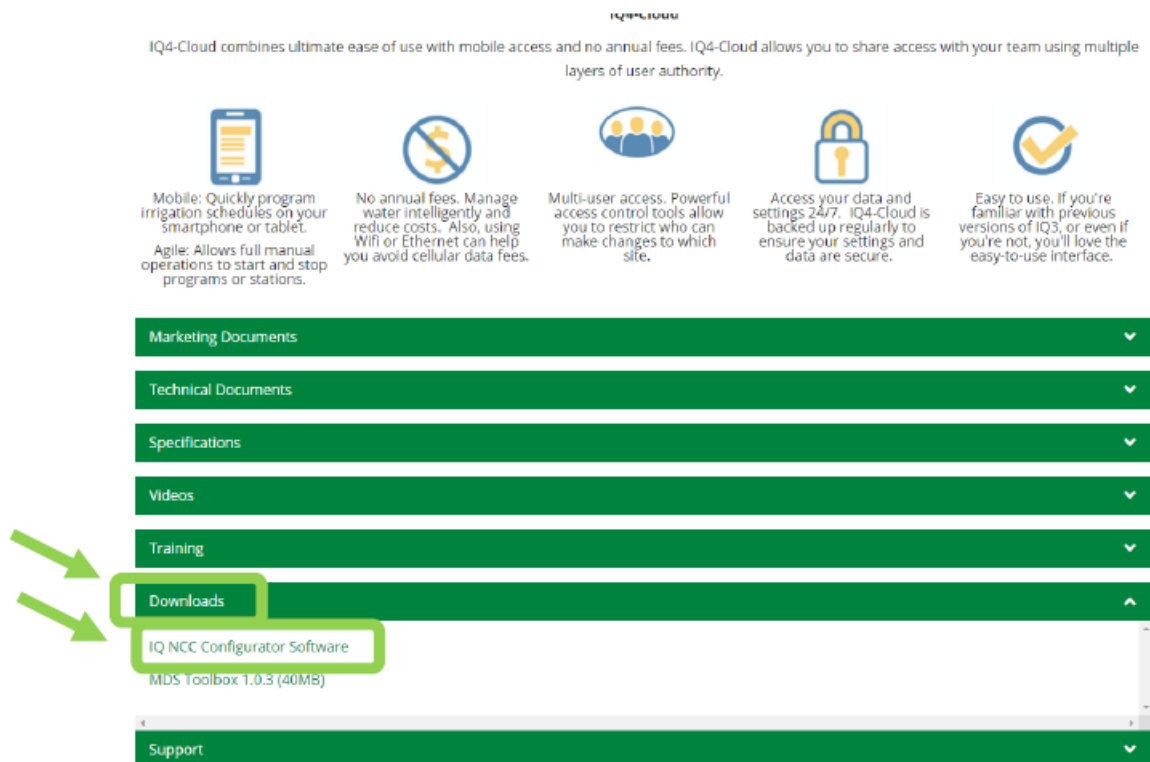
Use the NCC Configurator

Software to Configure the Ethernet Settings

1. **A**. Launch the NCC Configurator Utility on the computer.
2. **B**. Click the drop down arrow to select the computer COM Port number to which the Null Modem Cable is connected.
3. **C**. Click on the Read Configuration button to retrieve the communication configuration settings from the NCC Cartridge.
   1. The configuration setting fields will be blank or contain default values if the NCC Cartridge has never

been configured previously.

4. **D**. Enter/edit configuration settings.
5. **E**. Click Send Configuration button to send configuration to the NCC cartridge.

Configure the Cartridge on controller

- The IQ Settings main menu is displayed. Use the UP or DOWN arrows to select Setup Wizard ; press
- The Setup Satellite Type screen is displayed. Use + or to select Direct; press Next
- **NOTE**: A Wireless Bridge (Ethernet to Wi Fi Adapter) can be used to connect an IQNCCEN Ethernet Communication Cartridge to a wireless network. Download document "Wireless Bridge Configuration for Lantronix SGX5150" for set up instructions.

For LX IVM:
Turn the controller dial to Advanced Settings and choose Configure Cartridge.

- Setup controller in IQ4 – See "IQ4 Quick Setup Training" preso at: **https://www.rainbird.com/products/iq4** platform
- Perform a Reverse Sync to load all controller data into IQ4 from the controller

Documents / Resources

RAIN BIRD IQ4 Modular Multi Site Central Control [pdf] User Guide
IQ4 Modular Multi Site Central Control, IQ4, Modular Multi Site Central Control, Multi Site Central Control, Site Central Control, Central Control

References

- **Rain Bird**
- **IIS Windows Server**
- **Rain Bird**
- **IIS Windows Server**
- **IQ4 | Rain Bird**