

NTRIP Caster on CHC or iGage Receiver

Date: 8 October 2021

Thesis

The CHC and most iGage receivers have an internal NTRIP caster that can be used to send Base corrections to drone controllers or other devices.

Once you setup the caster, it will stay setup until a complete factory reset is performed. So, this is a once and done configuration.

These receivers have an NTRIP caster:

iG5, iG8, iG8a, iG9, iG9a
i73, i80, i90, i83, i89, i93, iBASE

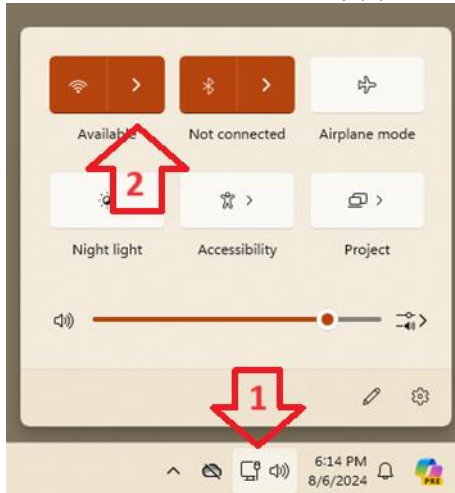
NOTE: the iGage iG10 has a different method which is described in this FAQ: [[iG10 NTRIP Caster](#)]

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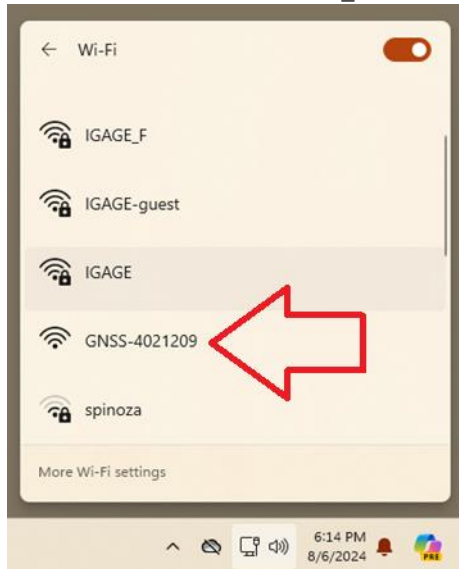
Setup

Connect to the receiver using the Wi-Fi interface

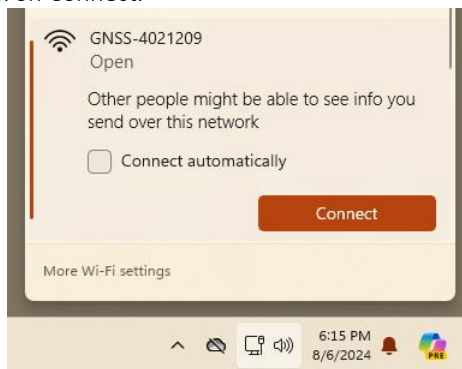
1. Connect to the receiver by Wi-Fi:
Click on the network icon in tool tray (1), then expand the list of available connections (2):



2. Click on the device with GNSS-serial_number of your receiver.

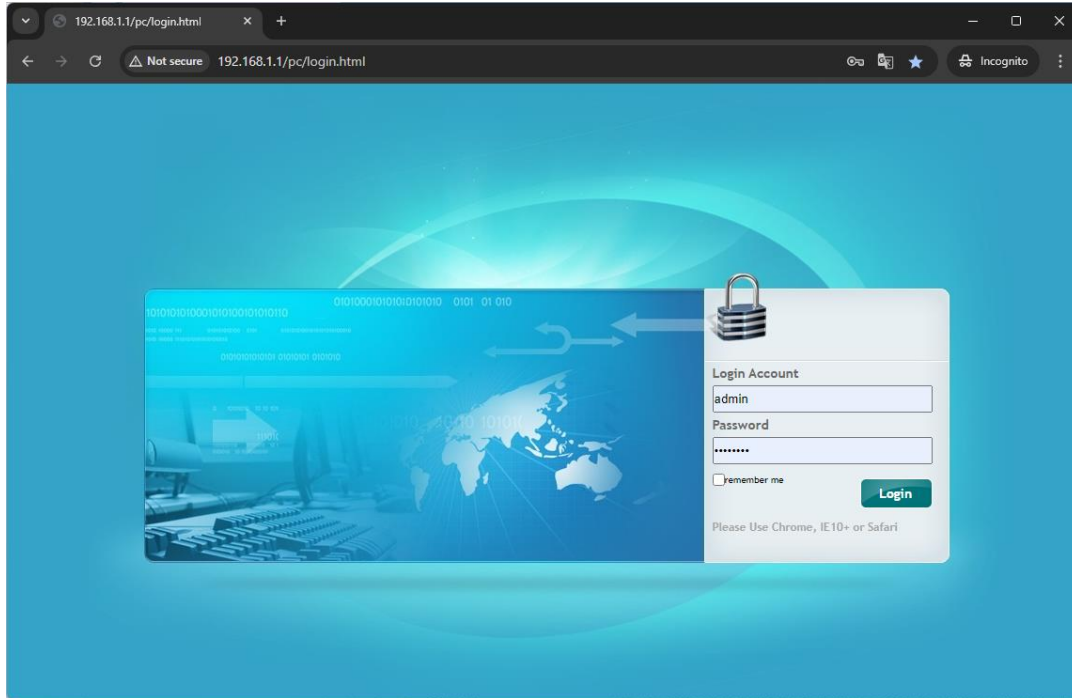


3. Click on Connect.



If you are asked for a Wi-Fi password, try “12345678”.

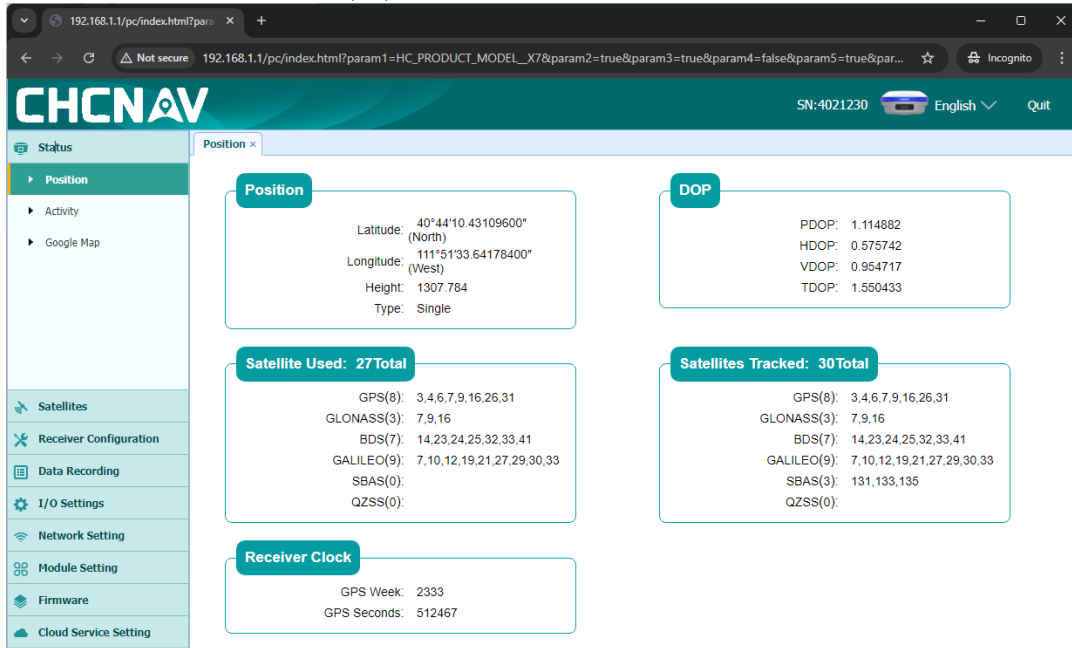
- Open an incognito browser window and navigate to the address 192.168.1.1:



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The default 'Login Account' is 'admin' and the Password is 'password' (lower case). Click **Login**.

- The receiver status screen will be displayed:



6. Click on I/O Settings:

	Type	Description	Output	Connection St	Modify
1	RTK Client	165.239.144.5.21	---	Unconnected	Connect Disconnecting
2	TCP/UDP_Client1/NTRIP	192.168.3.18.990	---	Unconnected	Connect Disconnecting
3	TCP/UDP_Client2/NTRIP	192.168.3.18.990	---	Unconnected	Connect Disconnecting
4	TCP/UDP_Client3/NTRIP	192.168.3.18.990	---	Unconnected	Connect Disconnecting
5	TCP/UDP_Client4/NTRIP	192.168.3.18.990	---	Unconnected	Connect Disconnecting
6	TCP/UDP_Client5/NTRIP	192.168.3.18.990	---	Unconnected	Connect Disconnecting
7	TCP/UDP_Client6/NTRIP	192.168.3.18.990	---	Unconnected	Connect Disconnecting
8	TCP Server/NTRIP Caster	9901	GPGGA:1Hz,GPGST:1Hz,	Closed	Connect Disconnecting
9	TCP Server/NTRIP Caster	9902	---	Opened	Connect Disconnecting
10	TCP Server/NTRIP Caster	9903	Differential Data:RTCM3.2	Opened	Connect Disconnecting
11	TCP Server/NTRIP Caster	9904	---	Closed	Connect Disconnecting
12	Serial Port	115200	---	---	Settings
13	Bluetooth	GNSS-4021230	GPGGA:5s,	---	Settings
14	Radio	461.025000MHz	RTK-Auto,	---	Settings

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7. Click on the **Connect** button for the first **TCP Server...** line, usually line 8:

8. The TCP Server/NTRIP Caster dialog is shown:

Auto connect: Connection Protocol: NTRIP

User Name: user Password:

Port: 2101 Mount Point: RTCM32

Differential Data: RTCM3.2 Raw Data: OFF

HCPPP Data: OFF

GPGGA: 1Hz GPGSV: OFF

GPRMC: OFF GPZDA: OFF

GPGST: 1Hz GPVTG: OFF

GPGSA: OFF GPPOS: OFF

Retransmit: RTK OFF

Confirm Back

Configure:

Auto connection	Checked (TRUE)
Connection Protocol	NTRIP
User Name	user
Password	user
Port	2101
Mount Point	RTCM32
Differential Data:	RTCM3.2

Click on Confirm.

9. The port will now display as 'opened':

8	TCP Server/NTRIP Caster	2101	GPGGGA:1Hz.GPGST:1Hz.Differential Data:RTCM3.2	Opened	Connect	Disconnecting
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Configuration is complete and will remain available/active until you change it or do a factory reset on the receiver.

Configure the Receiver as a Base

Setup the head as a Base using Carlson SurvCE/SurvPC, X-PAD, Field Genius, LandStar or via the Web interface directly (shown below).

To configure from the web interface

Login to the receiver as shown above.

Click on **Receiver Configuration**, then **Reference Station Settings**:

Set **Reference Station Mode = Manual Base**. Click on **Use Current Position** :

Reference Station Mode:

Base Station Name:

Base Station ID:

Reference Latitude: ° ' " N S

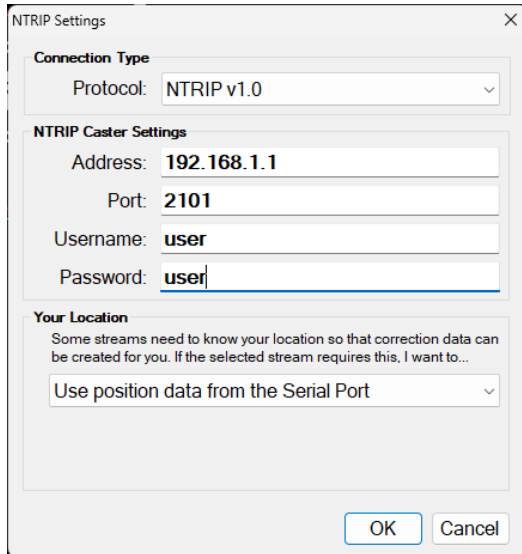
Reference Longitude: ° ' " E W

Reference Height:

The receiver's autonomous position will be loaded, click **Save** to start Base operation at the entered coordinate.

Configuration

I like to use the *LaFebure NTRIP Client* to test the connection. This is the configuration for the receiver setup above:



The NTRIP Settings dialog box is shown with the following configuration:

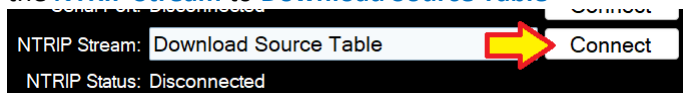
- Connection Type: Protocol: NTRIP v1.0
- NTRIP Caster Settings: Address: 192.168.1.1, Port: 2101, Username: user, Password: user
- Your Location: Use position data from the Serial Port

Buttons: OK, Cancel

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Click OK.

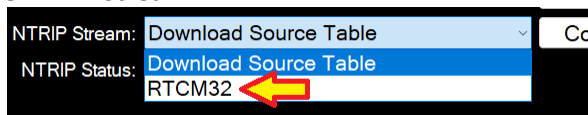
Change the **NTRIP Stream** to **Download Source Table**



The NTRIP Stream dropdown menu is shown with "Download Source Table" selected. A yellow arrow points to the "Connect" button.

Then click **Connect**.

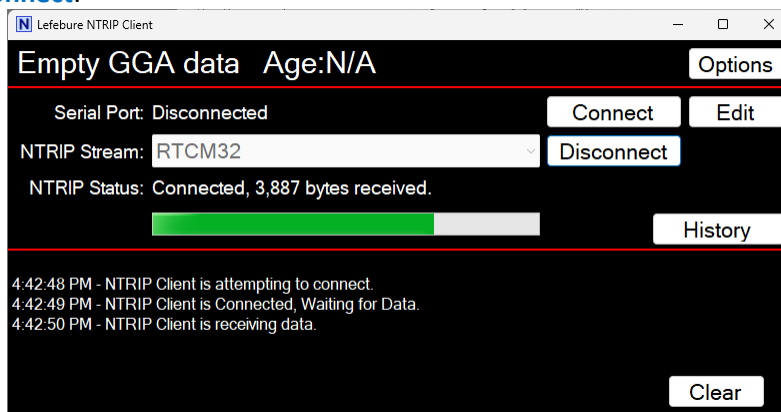
Drop the NTRIP Stream:



The NTRIP Stream dropdown menu is shown with "Download Source Table" selected. A yellow arrow points to "RTCM32" in the list.

and select **RTCM32**.

Click **Connect**:



The Lefebure NTRIP Client interface is shown with the following configuration:

- Serial Port: Disconnected
- NTRIP Stream: RTCM32
- NTRIP Status: Connected, 3,887 bytes received.

Buttons: Options, Connect, Edit, Disconnect, History, Clear

Log messages:

- 4:42:48 PM - NTRIP Client is attempting to connect.
- 4:42:49 PM - NTRIP Client is Connected, Waiting for Data.
- 4:42:50 PM - NTRIP Client is receiving data.

Correction data will begin streaming. Congratulations, any device that connects to the head will have access to the correction stream.