

iG10 Check Radios via Web Interface

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Thesis

This document describes how to check the current radio mode of the iG10 receiver from the Web Interface.

You will need a computer with Wi-Fi to make the connection.

Method

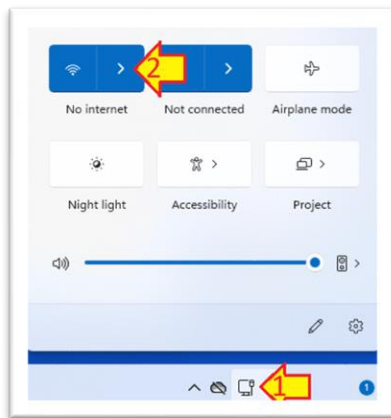
Connecting a computer

Connect a computer to the iG10 receiver using Wi-Fi.

Device Wi-Fi overview:

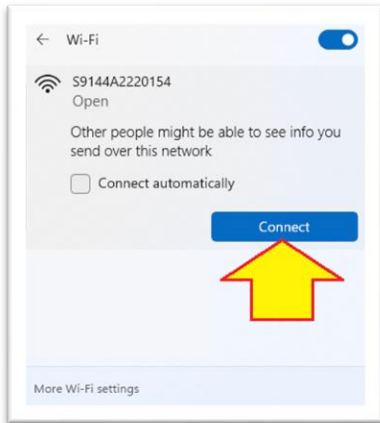
SSID:	Sxxxxxxxxxxx	device-serial-number
Wi-Fi Key:	(open)	no password is needed, connection is open
address:	192.168.10.1	
port:	80	
User Name:	admin	lower case
password:	password	lower case

To connect the iG10 to your PC with Wi-Fi, on the PC system tray click on the network icon (1) then click on the Wi-Fi list button (2):



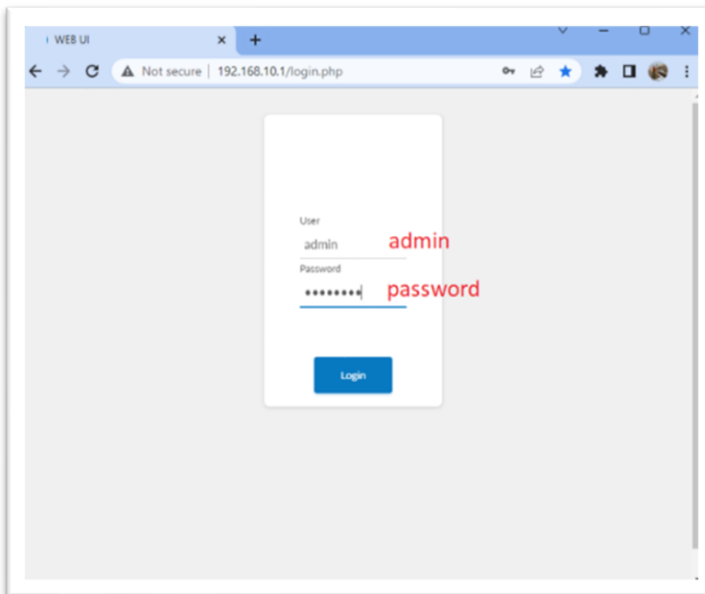
Click on the Network icon in the System Tray

Find the iG10 receiver:



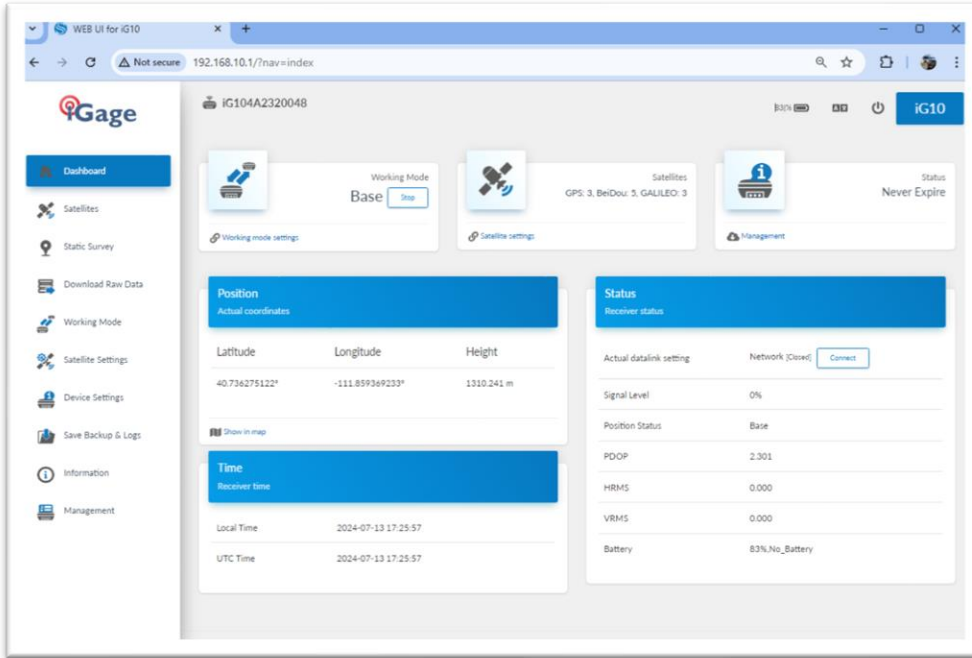
Click on **Connect**. Wait a moment for the connection to be completed. If a dialog noting there is no internet available from the connection, choose to 'stay connected'.

Open a browser window and browse to the IP address: 192.168.10.1:



Enter 'admin' for the **User** and 'password' for the **Password**, then click **Login**

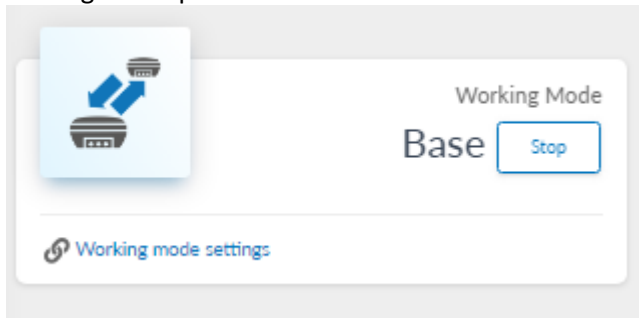
The main interface **Dashboard** window will be shown:



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If Base is started, stop the Base

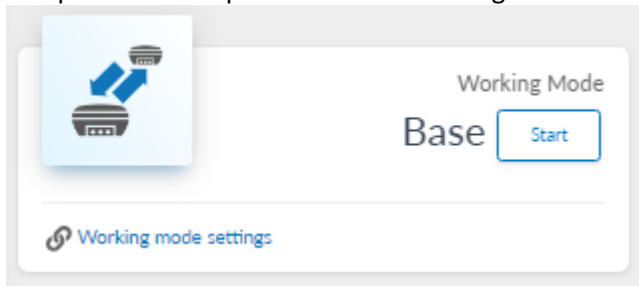
On the working Mode panel:



If Base is selected and the Stop button is shown:

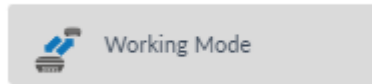


Click the Stop button. The panel button will change to Start:



Go to the [Working Mode](#) page

On the left panel, click **Working Mode**:

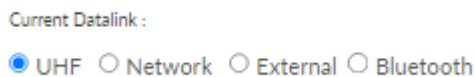


The **Current Datalink** should be set to **UHF**.

If the receiver is a Base these options will be displayed:



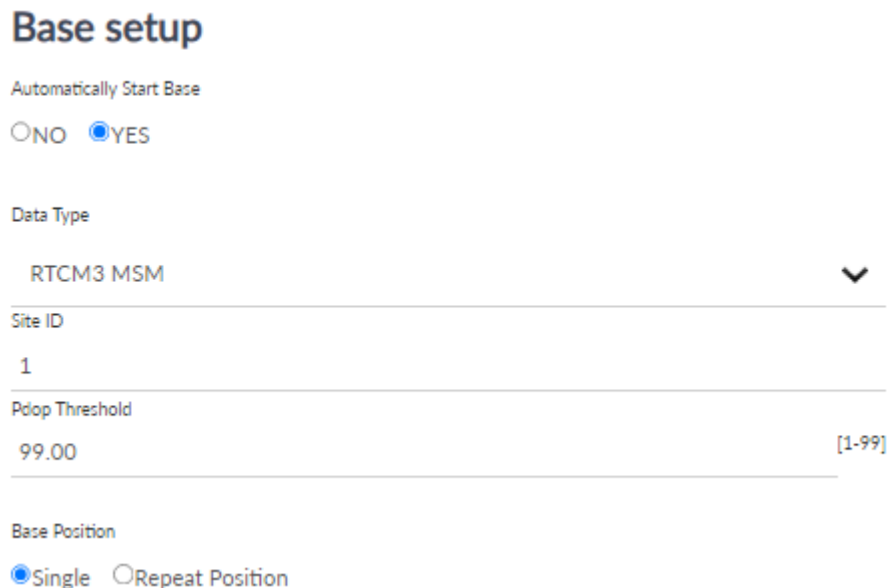
If the receiver is set to **Rover** then these options will be displayed:



Either **Base** or **Rover**, **UHF** will be the correct setting.

If configured as a Base

The **Base Setup** system will reflect the last base configuration, **Repeat Position** = Known Position with an enter position and **Single** = Read GPS with an autonomous position:

A screenshot of a "Base setup" configuration form. The title "Base setup" is in a large, bold, dark blue font. Below it, there are several settings: "Automatically Start Base" with radio buttons for "NO" and "YES" (selected); "Data Type" with a dropdown menu showing "RTCM3 MSM" and a downward arrow; "Site ID" with a text input field containing "1"; "Pdop Threshold" with a text input field containing "99.00" and a range indicator "[1-99]"; and "Base Position" with radio buttons for "Single" (selected) and "Repeat Position".

The **Base setup** is immaterial.

The Data link setup will depend on Base or Rover configuration. As a **Base**:

Data link setup

Frequency

410-470 MHz

Radio Channel

1 MHz

Radio Protocol

Satel

Channel Spacing: 12.5 KH

FEC: OFF

Radio Power

High

CallSign

ON

CallSign Interval

15 minutes [1-30]

CallSign Message

WQDN367

If configured as a **Rover**, then it will look like this:

Data link setup

Frequency

410-470 MHz

Radio Channel

1



461.025

MHz

Default Frequency

Channel Detection

Radio Protocol

Satel



Channel Spacing: 12.5 KH



FEC: OFF



The important thing is when you compare the **Base** and **Rover**, these items must be identical:

Radio Frequency: it is important for the frequency to match exactly. The Channel might be different, however the FREQUENCY must match.

Radio Protocol: The Radio Protocol must match. We recommend **Satel**.

Channel Spacing: The Channel Spacing must match. 12.5 KHz will result in 9600 baud for the Satel format, 25 KHz will result in 19,200 baud for the Satel format.

FEC: (Forward Error Correction) This item is best left **OFF**. When set to **ON**, it adds 30% overhead (extra characters) to every transmitted message. Mismatched **FEC** settings is the #1 cause of radio communication failure.

Starting the Base

After configuring the base and clicking **Save** under the radio settings:



Return to the main **Dashboard** by clicking **Dashboard** on the left panel:



Start the Base by clicking the **Start** button:



Radios match, but it still does not work?

If both your Base and Rover match, we recommend changing the settings of both the Base and Rover to see if it fixes the issue. Use these 25 KHz settings:



Radio Protocol

TrimTalk 450S ▼

Channel Spacing: 25	[KHZ]
FEC: OFF	

On both the Base and Rover receiver. If you use the web interface to Start the Base, then the Rover should FIX (assuming you are outside) after you start it.

For reference, the front panel LED meanings are:

	<p>Satellite Tracking</p>	<p>Off: no satellites tracked</p> <p>Red flashing: satellites tracked, no position available</p> <p>Green flashing: Autonomous, DGPS, Float position available</p> <p>Green: Fixed solution</p> <p>Green - Red: GNSS board failure</p>
	<p>Datalink Corrections</p>	<p>Green: successful device setup</p> <p>Green flashing: correction data is being received</p> <p>Blue flashing: observation data being recorded at</p> <p style="text-align: right;">blink rate</p>

Thus, if the receivers are outside on the Base:

 **Satellite Tracking** LED should be **Green Flashing** (Autonomous or DGPS) and the  **Datalink Corrections LED** should be **Green Flashing**

On the Rover:

 **Satellite Tracking** LED should be **Green Flashing** (FLOAT) or **Green Solid** (FIX) and the  **Datalink Corrections LED** should be **Green Flashing**