DG Hydro 1 Server Manual

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1. Overview

The DG Hydro 1 Server uses the scrypt algorithm, with a typical hash rate of 20Gh/s and a power consumption of 6200W. This server adopts an all-in-one form factor, integrating the hash board, power supply, etc. into one box, including a water inlet pipe and a water outlet pipe. All DG Hydro 1 Servers are tested and configured prior

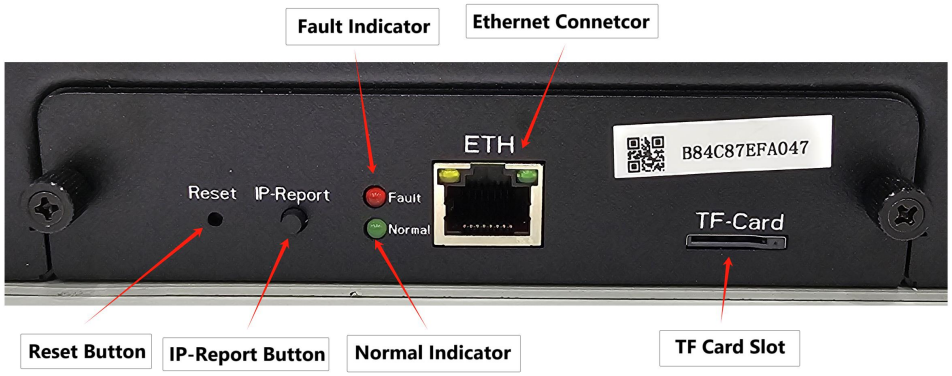
to shipping to ensure easy set up.

Front View

Back View

1.1 Server Components

Controller Board Interface:



Power Supply Interface:

Notes:

- *The power supply of the FP-201 is quite large, in order to avoid excessive cable current, the FP-201 adopts high-load power cord and socket.*

Water cooling inlet and outlet：

Water inlet	Water outlet
	

Notes:

- *Please take sealing measures for the water inlet and outlet of the water cooler to prevent water leakage from damaging the equipment.*

1.2 Specifications

Product Overview	Value
Version	**1.0.0**

Model	**DG Hydro 1**
Crypto Algorithm/Coins	**Scrypt**
Hashrate, **MH/s**	**20000 ± 3%**
power on wall **@25℃, Watt**	**6200 ± 10%**
power efficiency on wall **@25°C, J/MH**	**0.31 ± 10%**

Detailed Parameters	**Value**	
Power Supply		
PSU	**AC380V~480V, 3W+ ground, input 10kw**	
Hardware Configuration		
Network connection mode	**RJ45 Ethernet 10/100M**	
Server Size (Length*Width*Height, w/o package), **mm**	**656*447*86**	
Server Size (Length*Width*Height, with package), **mm**	**760*590*245**	
Net weight, **kg**	**25**	
Gross weight, **kg**	**26.5**	
Environment Requirements		
Coolant demand per machine	**About 1L**	
Inlet water temperature, **°C**	**Normal Mode**	**20-50**
	Overclocking Mode	**20-40**
Water flow, **L/min**	**≥10**	

Water pressure, **bar**	**≤3.5**
Liquid medium	**Deionized water/Customized water**
Liquid, **PH**	**8.5~9.5**
Storage temperature, **°C**	**-40~70**
Operation humidity(non-condensing), **RH**	**10~90%**
Operation altitude, **m**	**≤2000**

Important Warning notes:

- *Caution: Wrong input voltage or wrong 3-phase power cable may cause equipment damaged
- Inlet temperature control should be within accuracy **±2°C**
- Flow control accuracy should be within **± 10%**
- 10L/min corresponds to the temperature difference between inlet and outlet water close to 8°C@normal mode and 12°C@high performance mode
- When the pressure is more than 4 bar, the water-cooled plate will be deformed and cause the risk of coolant.
- Liquid medium - Special coolant: pure water + special corrosion inhibitor + antifreeze (ratio could be according to the freezing point). The coolant must meet the requirments by Elphapex. The coolant needs to be tested regularly. Testing indicators and testing cycles should be checked with Elphapex. When the testing data exceeds or is lower than the testing indicators, its performance will not meet the requirements and the coolant must be replaced. It is recommended to replace the coolant every year.
- Please empty the liquid in the equipment during storage and transportation.

2. ElphaPexTool Guide

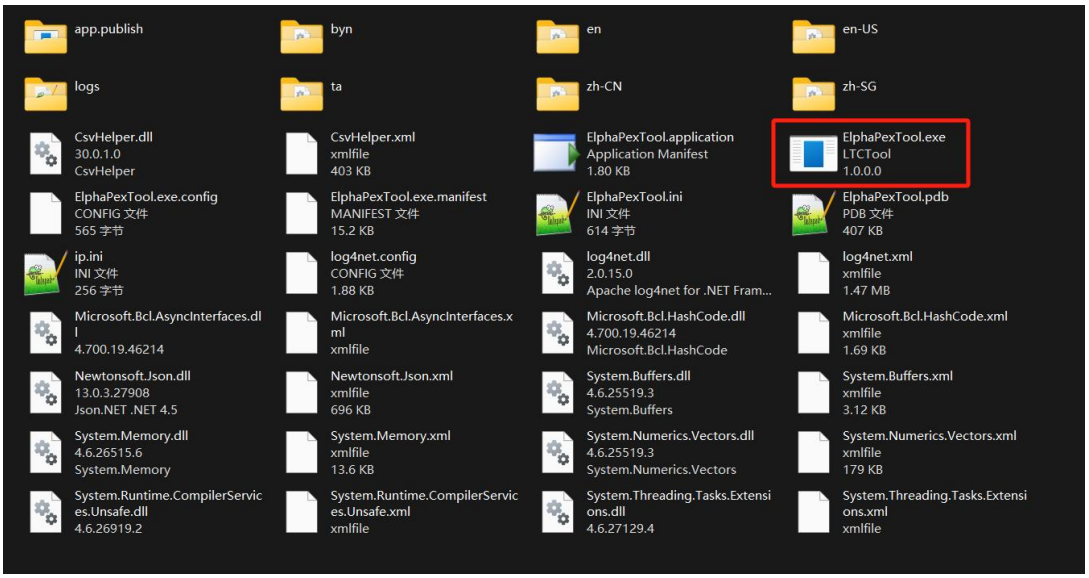
Note: You can **SKIP** this step if you already know its IP address and can use website to configure the mining info.

1. Get software pack ***ElphaPexTool*** from www.elphapex.com

Notes:

- ***ElphaPexTool*** *is now only available on windows platforms.*
- Please use the latest version. New features are only available on the latest version of tools and firmware.

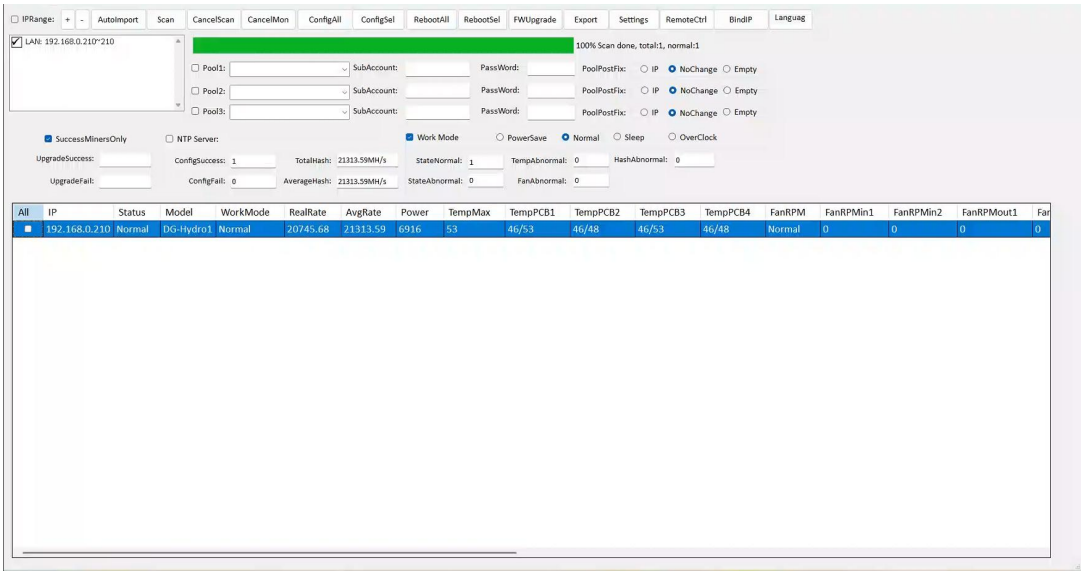
2. Extract the file.



3. Open the software ***ElphaPexTool.exe*** and click on 【+】, Add the corresponding network segment range

4. Press the **Scan** button.

The information about servers in the current network segment is displayed in a list.



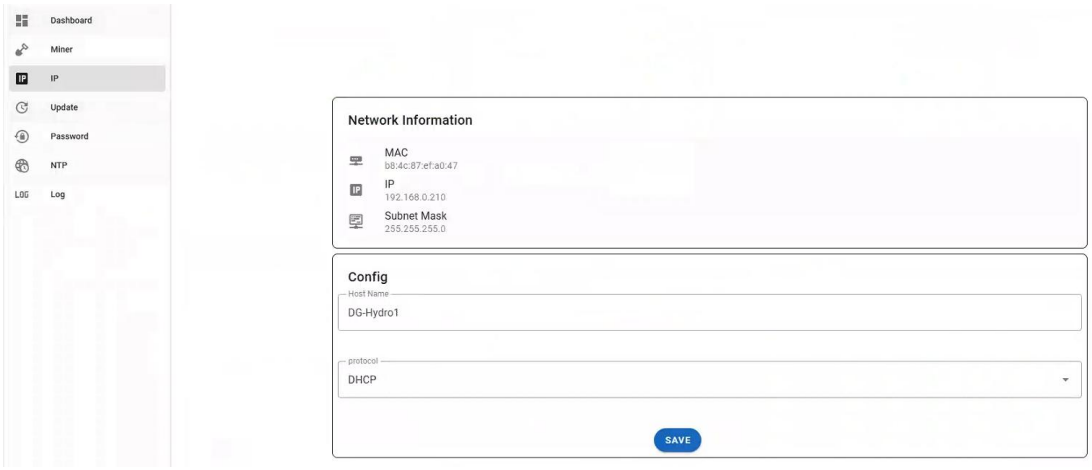
5. Double-click the selected line, this will open the browser to the server's web page.

6. Proceed to login using **root** for both the username and password.

7. In the **IP** section, you can assign a Static IP address (optional).

8. Enter the IP address, Subnet mask, gateway and DNS Server.

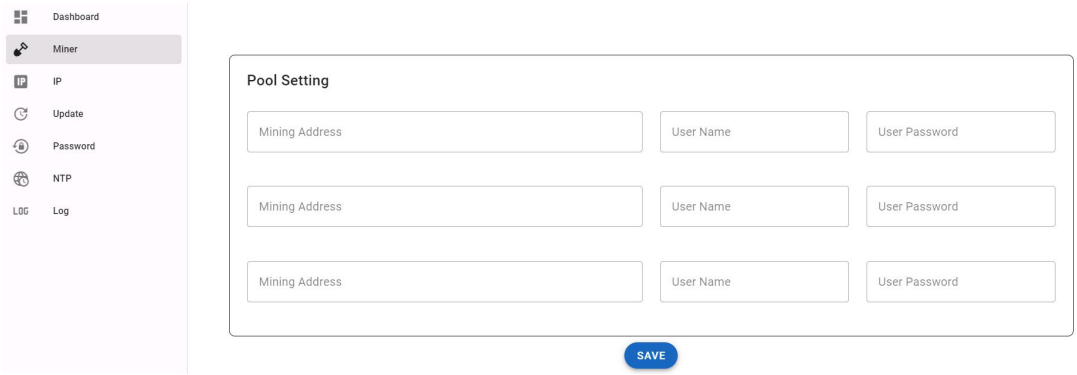
9. Click **SAVE** button.



3. Server Configuration

3.1 Pool Configuration

1. Enter server web page, click **Miner** Section:



Notes:

- *Note that please DO NOT adjust the fan speed by yourself although it can be configured. The server itself will tune the fan speed automatically going along with the environment temperature changes.*

2. Set the options according to the following table:

Option	Description
Mining Address	Enter your pool address
User Name	Your worker ID on the selected pool.
User Password	The password for your selected worker.

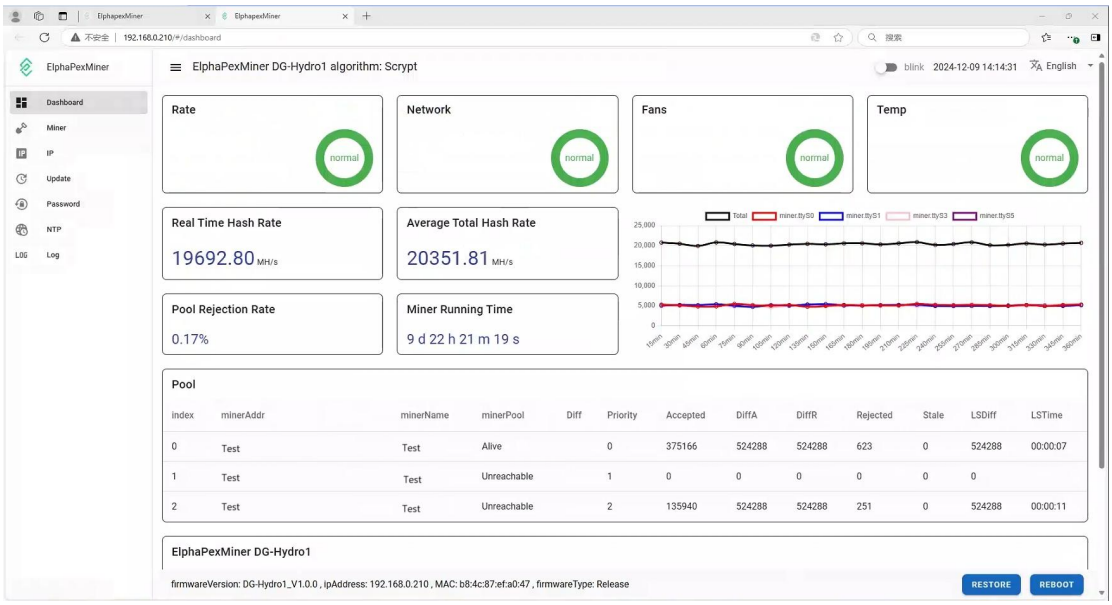
Notes:

- *The DG Hydro 1 server can set up three mining pools(pool 1 to pool 3) at the same time.*
- *The priority of pools 1 through 3 is reduced in turn, and when a pool with a higher priority is offline, a pool with a lower priority will be put into use*

3. Click **SAVE** after the configuration.

4. Server Monitoring

1. Click dashboard to check the server status



Notes:

- *When the temperature of the outlet reaches 85 ℃, the temperature control policy of the DG Hydro 1 server will activate the high temperature protection and the mining process will stop*

2. Monitor your server according to the descriptions in the following table:

Option	Description
chipNum	Number of chips detected in the chain.
Frequency	ASIC frequency.
rate	Network level hash rate of each hash board (MH/s).

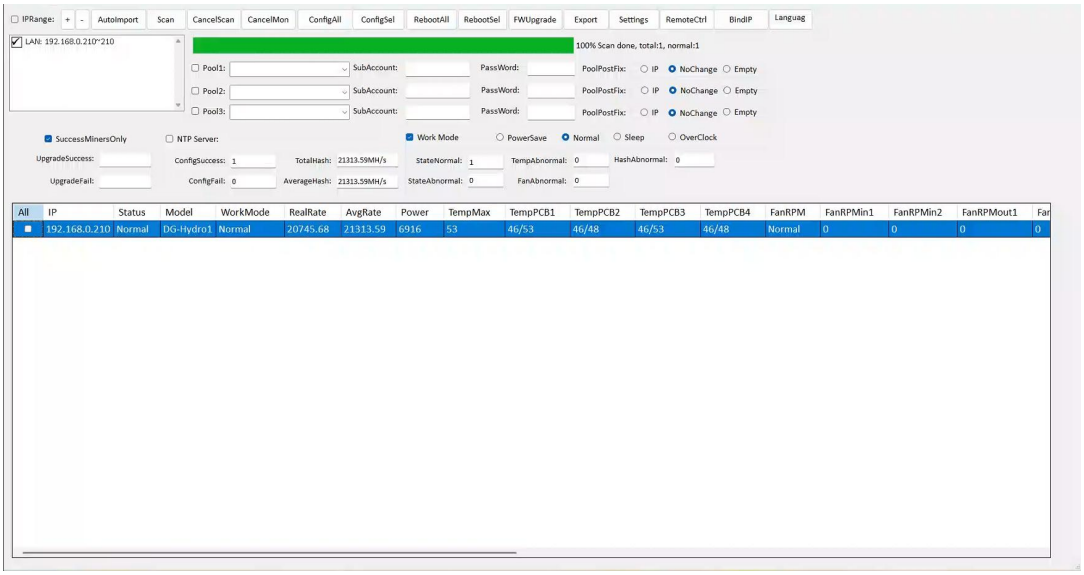
theoryHash	Theoretical hash rate of each hash board (MH/s).
hashrate	Board level hash rate of each hash board (MH/s).
picTem	Onboard Temperature of each hash board(inlet/outlet) (°C).
chipState	Chip operating state • Normal • Abnormal
SN	Series Number of each hash board

5. Server Management

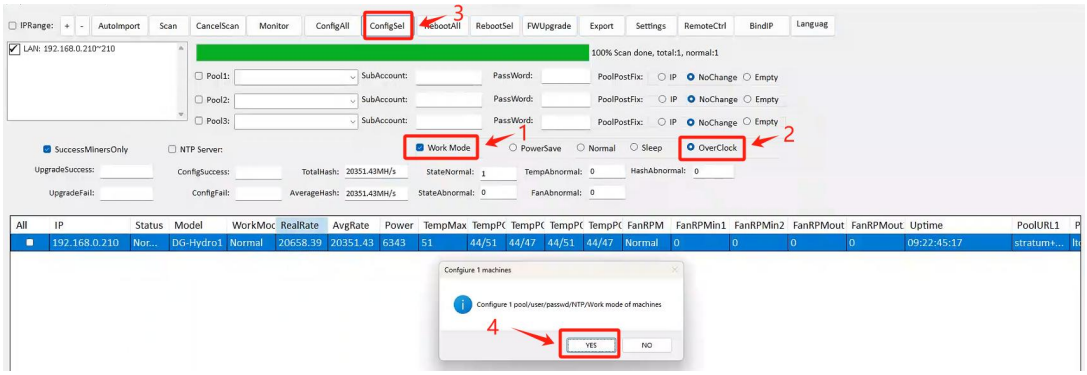
5.1 Overclocking Configuration

The **DG Hydro 1 Server** has been adapted to the overclocking mode. You need to switch from normal work mode to overclocking work mode through the latest **ElphaPexTool**. Refer to the following steps.

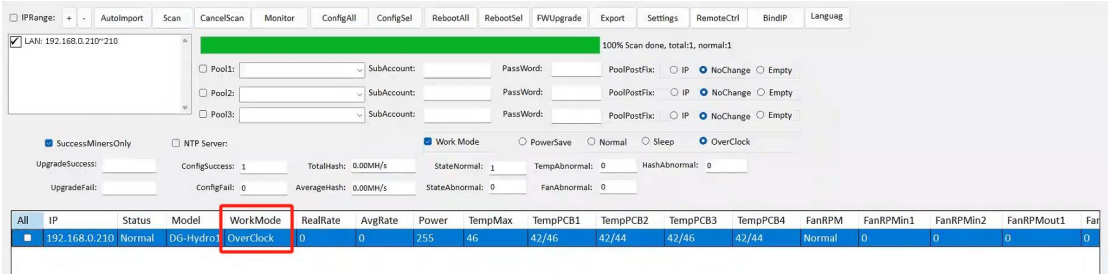
1. Use latest **ElphaPexTool** to scan to the server.



2. Follow the steps below to switch the server to overclocking mode.



3. Rescan the server status to check whether the working mode has been switched to overclocking mode.

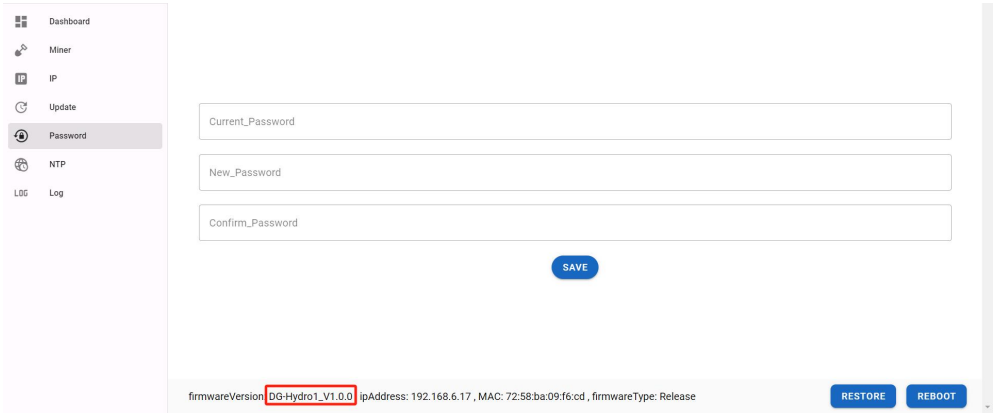


4. If you want to switch to normal mode, refer to step 2, and select **Normal** work mode.

5.2 Firmware Version Check

1. Enter the backstage web site of your server, find the firmware version on the bottom.

2. Firmware version displays the current release version your server uses. In the examples below, the server is using firmware version: **DG-Hydro1_V1.0.0**



5.3 System Update

Notes:

- *During the firmware upgrade, ensure that the server remains powered on and no other operations are conducted.*

- *The DG Hydro 1 server provides support for firmware upgrades using the .img and .zip file extensions.*

1. In Web site page, click **Update** to enter the firmware upgrade page.

2. Click **Firmware File** input field, select the **.img** or **.zip** firmware file, and then click **UPDATE**, The server will start the firmware update process.

3. When the update process is completed, the server will restart and it will turn to the **Dashboard** page.

5.4 Password Change

1. In Web site page, click **Password**.

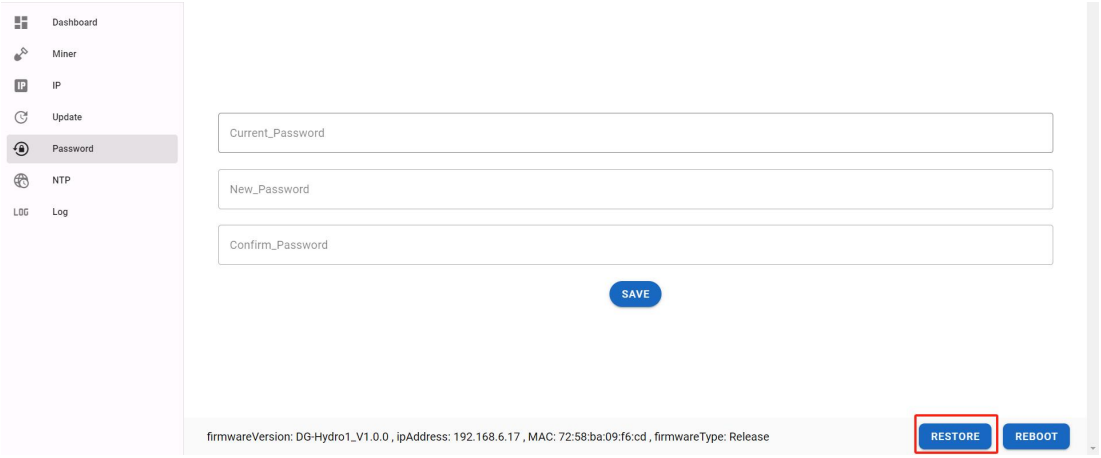
2. Enter the current password and the new password, then click **SAVE**.

5.5 Restoring Initial Settings

Notes:

- *The **RESTORE** operation will clear the pool Settings and restore the original password. Exercise caution when performing this operation.*

1. In Web site page, Click **RESTORE** button.



Regulations:

Notice：

This device complies with part 15 of the FCC Rules.Operation is subject to the following two conditions:

(1). This device may not cause harmful interference.

(2). This device must accept any interference received, including interference that may cause undesired operation.

CAN ICES-003(A) / NMB-003(A)

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.