



# **SKD2210H user manual**

## **(2 HDMI to Mutiprotocol IP Encoder)**



Dingshengwei Electronics Co., Ltd.

The final interpretation right of this document belongs to our company

# Preface

Thank you for choosing our product.

This manual details the performance, installation and operation of the product. Please read this manual before use.

Our company, Ding Sheng Wei Electronics Co., Ltd., does not assume any responsibility for any losses caused by violation of safety regulations.

## 1. Incoming inspection

- (1) Open the equipment box and check the contents against the product packing list.
- (2) If the packing list does not match the actual item, please contact us.

## 2. Read the instruction manual

Please read the instructions and follow all instructions.

### (1) Power

The power supply used with this device must comply with the indicated power supply and be grounded. When not using the machine for a long time, please unplug the power cord.

### (2) Working environment

Keep the equipment working in a ventilated and dry place. Avoid excessive heat, moisture, dust and heat.

### (3) Equipment cleaning

Before cleaning the device, unplug the power cord. Do not use liquid or spray cleaners.

### (4) Power cable protection

Pay special attention to the safety protection of plugs, sockets and power cords

### (5) Overload

Be careful not to overload the power supply at the outlet. Use caution when using extension cords or integrated sockets as this may result in electric shock and fire.

### (6) Lightning

To prevent damage caused by lightning, please use this device in a lightning protection device, which can effectively prevent damage caused by lightning or power grid fluctuations.

### (7) Foreign matter or liquid intrusion

Do not insert foreign objects into the machine or spill any liquid into the machine.

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#### (8) Attachments

Do not use accessories not recommended by the manufacturer, as this may cause danger

#### (9) Transportation

When transporting the machine, the original packaging of the product should be used to avoid damage. Do not place heavy objects on the machine or step on it. Otherwise, personal injury may occur and the machine may be damaged.

#### (10) Maintenance

Do not open the box and repair by yourself to avoid personal injury or serious damage to the machine.

During the warranty period, if the product is damaged due to natural causes and is disassembled without authorization, free warranty will not be provided.

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# 1. Product description

The SKD2210H is a platform product for centralized processing of small digital or IP TV front-end services. The installation method is flexible and can be installed in cabinets, wall-mounted, and desktop. Device parameter configuration can be operated through local or cloud network. The WEB page is beautiful and easy to understand, and the operation is simple. It has intelligent functions such as parameter batch import, export and exception reminder. It is a device that highly integrated, cost-effective IPTV front-end signal comprehensive processing equipment.

## 1.1. Product picture

### Front panel



### Rear panel



## 1.2. SKD2210 parameter

SKD2210H parameters
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<b>Size</b>	205(L)*135(W)*43.8(H)mm	
<b>Installation form</b>	1U19inch chassis, Wall hanging, desktop	
<b>Working temperature, humidity</b>	-10℃-45℃、40%-70%	
<b>Storage temperature and humidity</b>	-40℃-70℃、40%-95%	
<b>Power parameters</b>	<b>Supply voltage</b>	DC12V
	<b>Maximum current</b>	7000mA
<b>Conector parameter of input module</b>	<b>Total number of slots</b>	1
	<b>Each slot can support modules</b>	2 HD encoding module
<b>IP output parameter</b>	<b>IP output conector</b>	1 Gigabit RJ45 network port
	<b>Output format</b>	Supports UDP/RTP/HLS/SRT/RTMP/HTTP mutiprotocol output, supports SPTS stream processing

### 1.3. Features of products

- 2 HD input,support OSD function
- Support H.264/H.265 video encoding output
- Supports UDP/RTP/HLS/SRT/RTMP/HTTP mutiprotocol output, supports SPTS stream processing
- 1 Gigabit port for IP out and management
- Operated through PC (WEB), the device supports cloud management

## 2. Structure diagram

### Front panel



Number	Function	
1	PWR	This indicator light lights up when the device is powered on
	RUN	This indicator light lights up when the device is running
2	ALM	Alarm, no authorization or failure, etc
	ENC	HD in encoding state
	CH1	When the No. 1 port receive the signal, the indicator light lights up.
	CH2	When the No. 2 port receive the signal, the indicator light lights up.
3	NMS/DATA	Gigabit output and NMS port
4	DFAULT	Restore factory settings button. If you need to restore factory settings, you need to press and hold for 15 seconds.

### Rear panel



Number	Function	
1	CH1	Signal input conector
	CH2	Signal input conector

2	Power inlet
3	Ground

## 3. Installation guide

### 3.1. Installation preparation

When installing the device, follow these steps:

- Check for possible loss or damage of equipment during transportation;
- Prepare a suitable environment for installation;
- Install the required input and output cables;

Each detail of the equipment installation is described in the remainder of this chapter, using the rear panel diagram as a reference for specific locations.

### 3.2. Equipment installation process

Step 1:Unpacking and inspecting goods

Step 2:Fixed equipment

Step 3:Connect power and ground wires

Step 4:Connect signal cable

Step 5:Connect signal cable

Step 6:Set device parameters

Step 7:Set device parameters

Step 8:Equipment operation

### 3.3. Environmental conditions requirements

Project	Requirement
Control room space	When installing multiple rows of cabinets, the distance between the front and rear doors of the cabinet is 1.2~1.5m and the distance from the wall is 0.8m.



Control room floor	Non-conductive and dust-free. The volume resistivity of the ground anti-static material is $1 \times 10^7 \sim 1 \times 10^{10}$ , and the grounding current limiting resistance is 1M. The floor load-bearing should be greater than 450Kg/m <sup>2</sup> .
Ambient temperature	For long-term work in an environment of 5~40°C, and for short-term work in an environment of 0~45°C, it is best to install air conditioners in places to facilitate heat dissipation.
Relative humidity	Work long-term in the 20% to 95% environment and short-term in the 10% to 97% environment.
Ambient air pressure	86kPa~106kPa.
Windows	Dust-proof rubber strips must be added for sealing. It is recommended that windows be installed with double-glazing and strictly sealed.
Wall	Wallpaper can be applied or matte paint can be applied, but paint that is easily powdered should not be applied.
Fire protection requirements	The control room should be equipped with an automatic fire alarm system and a portable fixed fire extinguishing system.
Power requirements	Three independent power supply systems are required for equipment power supply, air conditioning power supply, and lighting power supply. The equipment is powered by AC power supply. The AC power supply adopts 220V±20% 50/60Hz. Please check carefully before operating the equipment.

### 3.4. Grounding requirements

- The good ground wire design of each functional module is the basis for the stable and reliable operation of the whole machine, and is the primary guarantee for lightning protection and anti-interference. Therefore, system grounding must follow the following principles;
- The ground conductor must use copper conductor to reduce high-frequency impedance, and the ground wire should be as thick and short as possible;
- The connection points at both ends of the grounding wire should be confirmed to have good electrical contact and should be treated with anti-corrosion treatment;
- It is strictly prohibited to use other equipment as part of the electrical connection of the ground wire;
- The cross-sectional area of the ground wire connecting the cabinet to the lightning protection unit must be greater than or equal to 25mm<sup>2</sup>.

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### **3.4.1. Cabinet grounding**

The ground terminals of each cabinet in the same computer room should be connected to the protective ground copper bar provided by the control room. The grounding wire is required to be as short as possible. If the wiring is too long during project installation, it should be cut off to avoid coiling of the grounding wire. The cross-sectional area of the conductor from the ground terminal to the ground bar must be greater than or equal to 25mm<sup>2</sup>.

## **4. Built-in web management terminal operation**

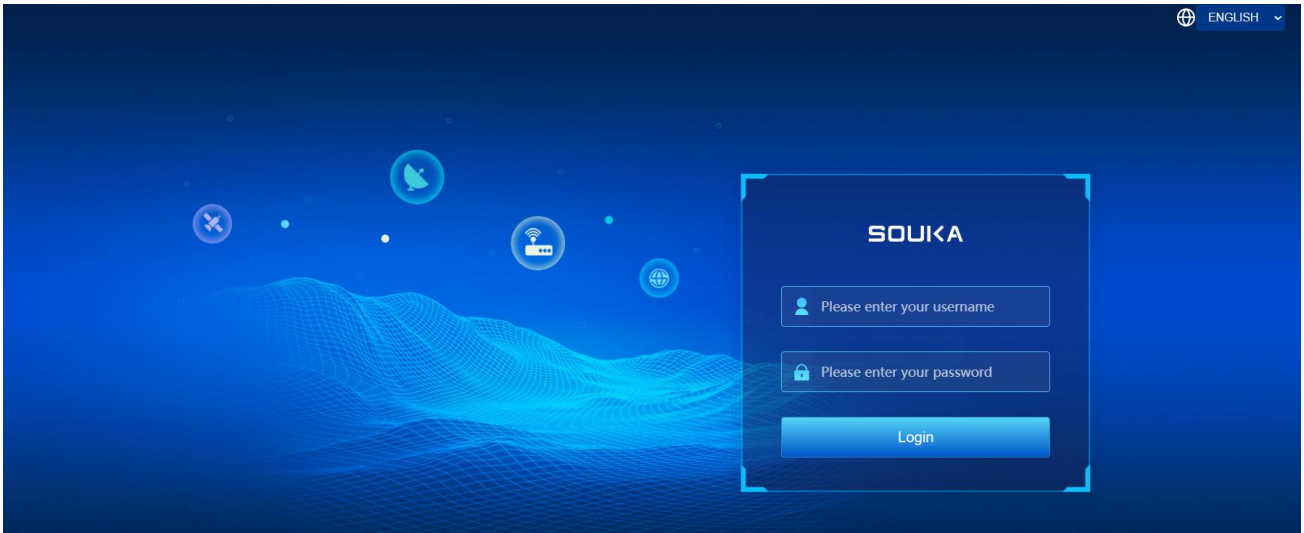
### **4.1. Preparation before operation**

- The NMS network port of the device is connected to the PC network port;
- Power the equipment;

### **4.2. Login interface**

- You can check the IP address of the device through the operation panel.
- Open IE browser/Firefox browser/Google Chrome/Opera browser/Maxthon browser, enter the device IP address in the address bar (generally default: 192.168.1.10), and after confirmation, the login interface will be displayed as follows:
- Enter username and password, the default is: user

Click to log in

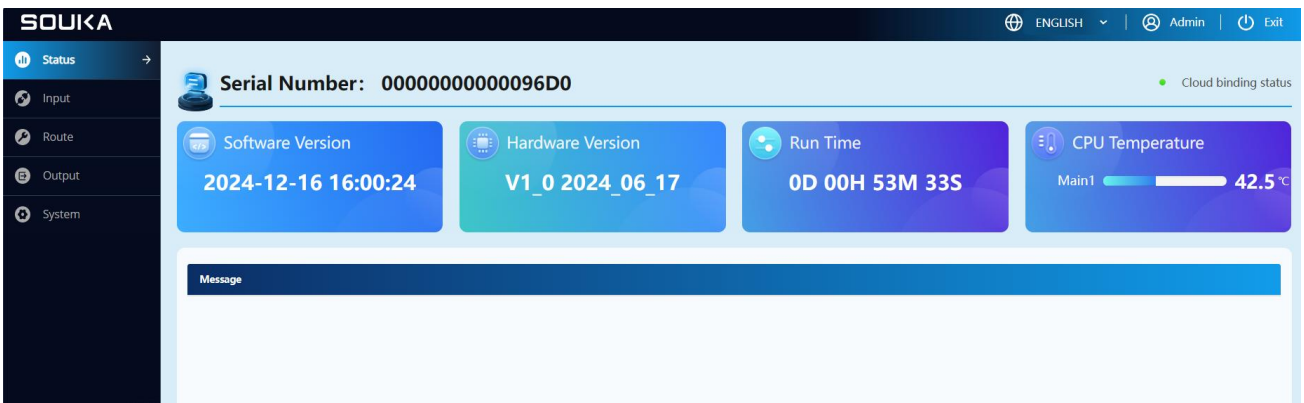


Notice:

1. If the connection cannot be made, please check whether the PC and the device are on the same network segment. If not, please add a new network segment in the advanced TCP/IP settings of the PC. For example: the PC's IP address is 192.168.99.252, which can be changed to 192.168.1.xxx (xxx can be any value from "1" to "254" except "252" to avoid IP conflicts).
2. If you still cannot connect after the above operations, or you forgot to log in to the IP address, please operate the front panel of the device to restore the factory default values.
3. If you need to change the language, please change it in the upper right corner of the page.

Select ENGLISH/简体中文.

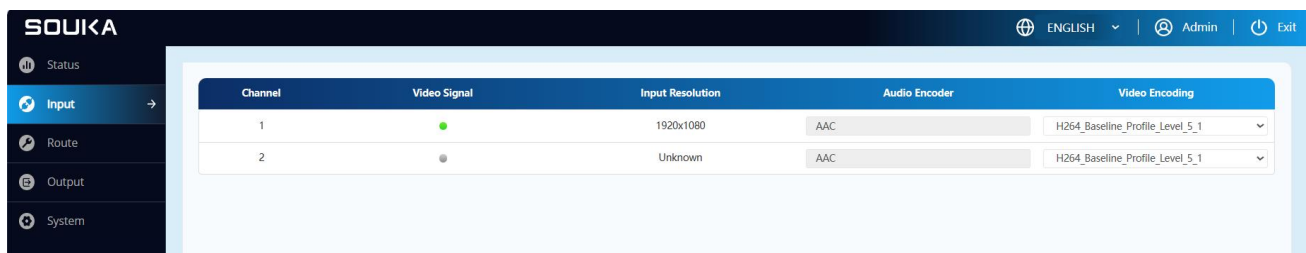
### 4.3. Device status



Serial ID	Display device serial number
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Software version	Display the current software version number of the device
Hardware version	Display the current hardware version number of the device
Run time	The length of time the device has been running
Message	Display some information about the connected HD program
Language	简体中文/ENGLISH
Admin	Display the user name currently logged in to the device backend
Exit	Exit the device background management terminal
Cloud network management binding status	Displays the binding status of the device on souka cloud. Green: bound; gray: unbound

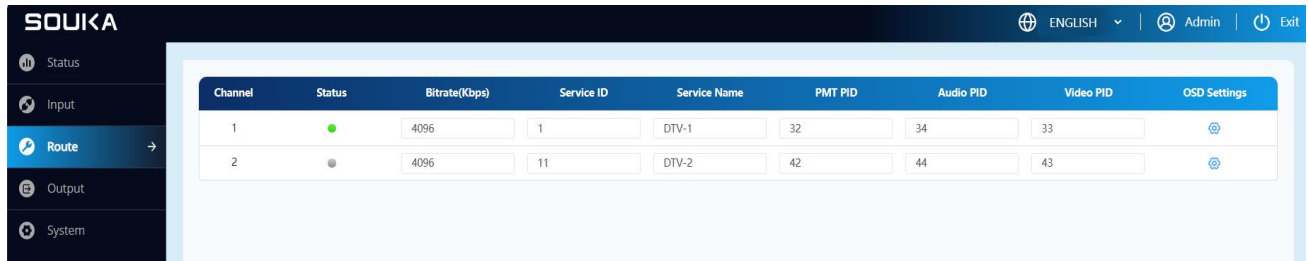
## 4.4. HDMI input



Channel	Display the serial number of the channel number to visually display the number of channels
Video signal	Display the signal status of the channel. ·Gray: The signal is not connected; ·Green: The signal is locked and analyzed successfully;
Input resolution	Displays the resolution of the input program
Audio encoder	This device only support AAC audio encoding
Video encoding	Displays all video encoding methods supported by the device

## 4.5. Router management

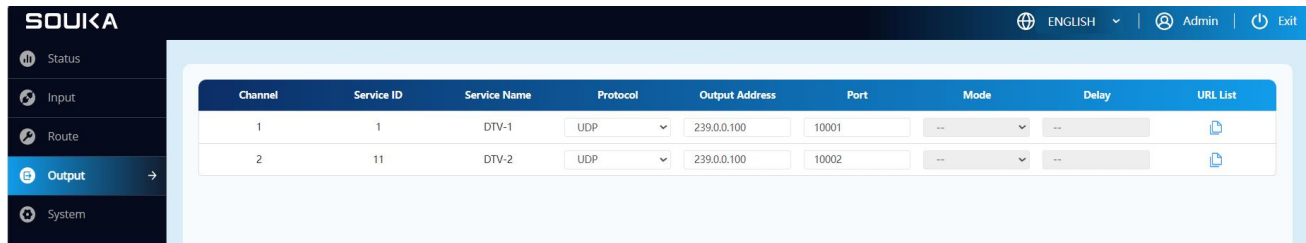
In routing management, we can edit the channel info.



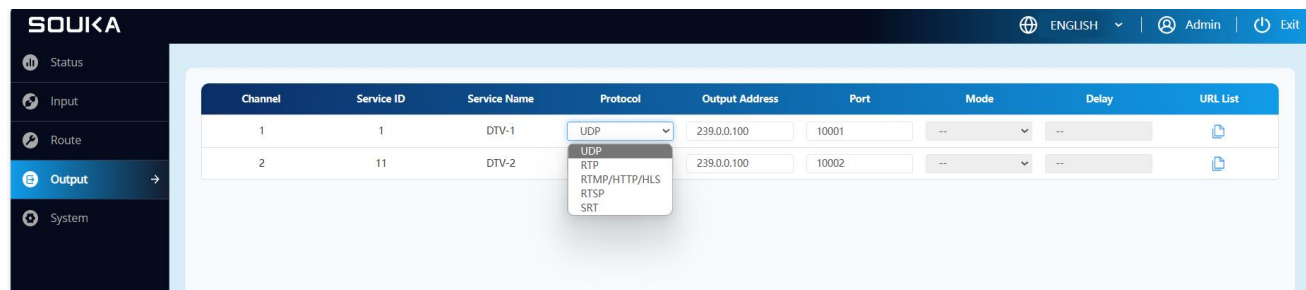
Channel	Display the serial number of the channel number to visually display the number of channels
Status	Display the signal status of the channel. ·Gray: The signal is not connected; ·Green: The signal is locked and analyzed successfully;
Bitrate	Displays the bit rate of the input program
Service ID	Displays the service id of the input program,can change
Service name	Displays the service name of the input program,can change
PMT PID	Program Map Table PID, can change
Audio PID	Can setting by yourself
Video PID	Can setting by yourself
OSD Setting	Image and text overlay function,can setting by yourself

## 4.6. Output management

The output management interface mainly displays the forwarded programs.



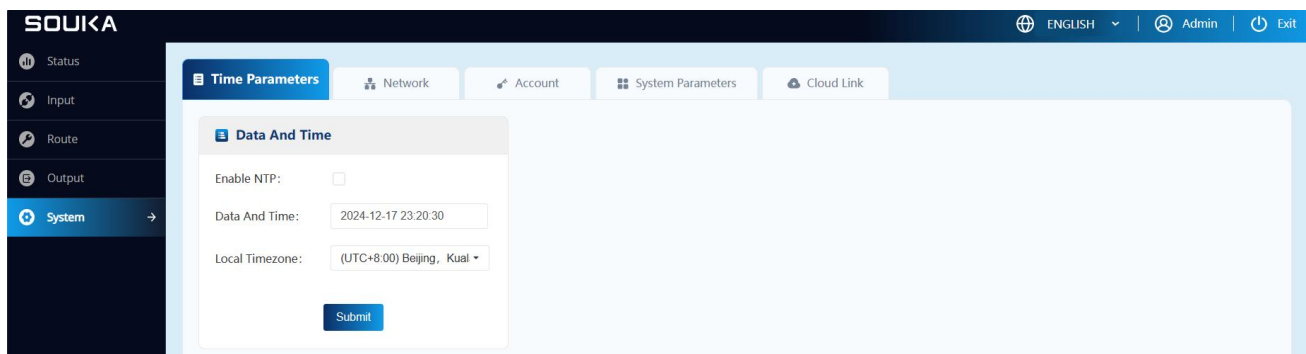
Choose different output protocol or you can setting output address by yourself.



## 4.7. System management

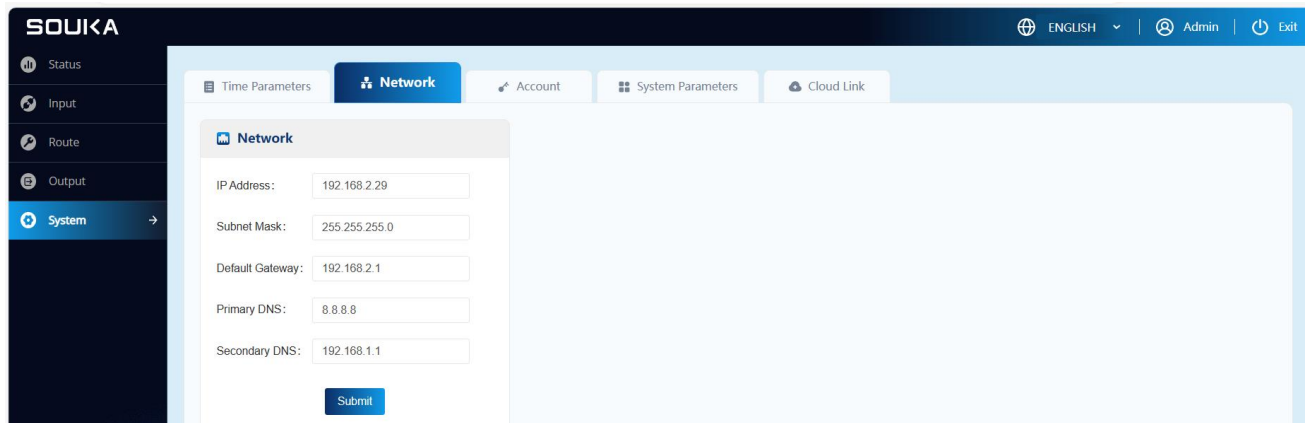
Able to perform network and IP network port settings, password settings, system configuration, time settings and cloud network management binding.

It can automatically calibrate time information, or manually set the time and adjust the time zone according to actual needs.



### 4.7.1. Network setting

Reset the device IP address



The screenshot shows the SOUKA web interface with the 'System' menu selected on the left. The 'Network' tab is active in the top navigation bar. The 'Network' settings form contains the following fields:

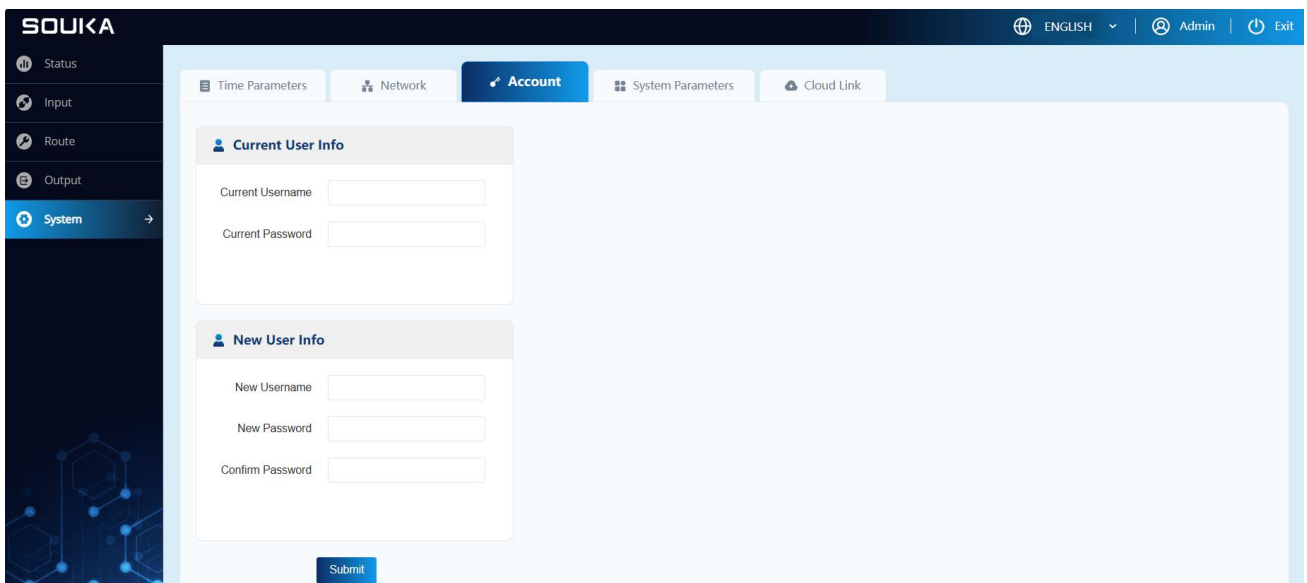
Field	Value
IP Address:	192.168.2.29
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.2.1
Primary DNS:	8.8.8.8
Secondary DNS:	192.168.1.1

A 'Submit' button is located at the bottom of the form.

### 4.7.2. Password setting

Reset a new username and password.

Operation steps: First fill in the username and password in the initial information, and then fill in the new username and password. Only when the initial username and password are entered correctly can the password be modified.



The screenshot shows the SOUKA web interface with the 'Account' tab selected in the top navigation bar. The 'Account' settings form is divided into two sections:

**Current User Info**

Field	Value
Current Username	
Current Password	

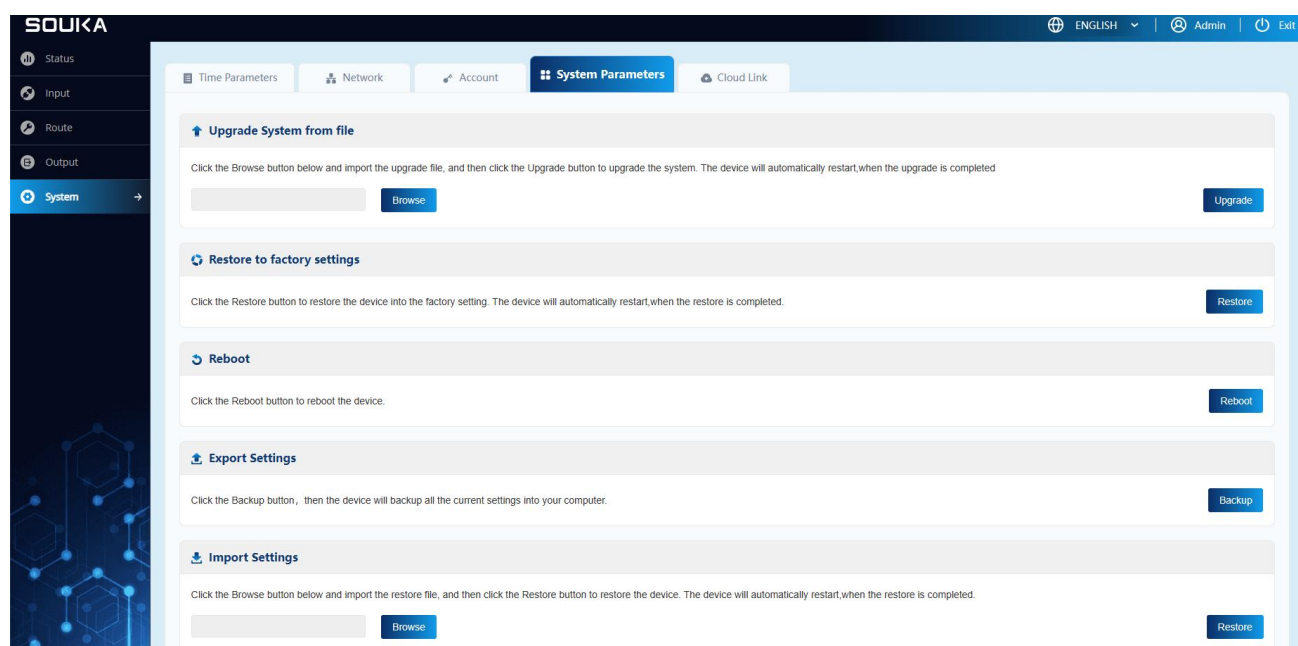
**New User Info**

Field	Value
New Username	
New Password	
Confirm Password	

A 'Submit' button is located at the bottom of the form.

### 4.7.3. System configuration

In the system configuration, follow the operating instructions to upgrade the system, restore the factory, restart, export the system configuration file, and import the system configuration file. The import and export files can manually back up the system configuration information. When you need to restore the previous configuration information, import The corresponding configuration file is enough.



### 4.7.4. Cloud network management binding

Please enter the cloud network management system account to bind the device. If you do not have an account, please register an account in the cloud network management system. Enter the cloud network management account and password to bind. After the binding is successful, the binding status light turns green.



The screenshot shows the SOUKA Cloud Link configuration page. On the left is a sidebar with navigation options: Status, Input, Route, Output, and System (highlighted). The main content area has tabs for Time Parameters, Network, Account, System Parameters, and Cloud Link (active). Under 'Cloud Link', there are two panels. The 'Server Link' panel contains checkboxes for 'Cloud Enable' and 'Alarm Enable', both checked. Below them are input fields for 'Server address' (containing 'iptv.soukacatv.com.cn') and 'Server Port' (containing '7830'). The 'Device Binding' panel contains a 'Bind State' indicator (a green dot), a 'Username' field (containing '18979087961'), and an empty 'Password' field. Both panels have a 'Submit' button at the bottom.

Enable	Cloud network management is enabled, checked by default. After unchecking, the device will be disconnected from the cloud network management.
Alarm enable	Checked by default, device alarm information can be detected on the cloud network management.
Server domain name	Fill in the server domain name of the cloud network management, default: iptv.soukacatv.com.cn
Server port	Fill in the server port of the cloud network management, the default is 7830
Binding status	Green: Binding successful; Gray: Unbound
Username	User name registered on the cloud network management system
Password	Password registered on the cloud network management system

## 5. Equipment operation precautions

The company's product quality assurance system includes equipment testing and operating procedure inspections to ensure the reliability of product quality. The company has taken all possible measures before the product leaves the factory. The optical, electrical and mechanical indicators of the products all meet national standards. During use, in order to prevent possible potential problems, the following precautions should be strictly followed for relevant operations.

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## 5.1. Precautions

1. Place the device at an ambient temperature of 0~45 ° C. Other conditions meet the required scope of work.
2. Make sure the rear panel radiator is well ventilated and make sure all jacks are not blocked
3. Check whether the power supply voltage is within the specified range and whether all connections are correct
4. Check whether the adjustment level (dB) change is within its allowable range
5. Check whether the connection of each signal line is loose.
6. Please do not switch machines frequently (the switching interval should be at least 10 seconds)

## 5.2. The chassis needs to be unplugged from the power supply

1. The power cord or socket is damaged
2. If there is liquid injection equipment
3. Any debris falls into the chassis hole, causing an internal short circuit
4. Use water or soak
5. Collision or internal damage
6. Do not use this machine for a long time
7. If the preset is restored and the power is turned on, the device still does not work properly
8. Equipment needs maintenance

## 5.3. Common malfunctions

1. Missing program: Please check whether there is a channel conflict, whether the video signal input is normal, and restart the device.

These terms are subject to change without prior notice, and we reserve the right of final interpretation. If you have any further questions, please contact our sales department directly.