IP Power 9255 User Manual



Release Date: 11/30/2019 Manual Version: 1.12 Firmware: Ver. 4.03 **Warning:** Any changes made to this equipment without permission may cause damages to the device!

IMPORTANT NOTICE

- 1. IP Power 9255 was designed to be used with a protective covering, the user is responsible for any damages caused from misuse, or use under inappropriate conditions.
- 2. Please use the power adapter provided by the dealer, the manufacturer is not responsible for any damage caused from using power adapters not.
- 3. Do not shake the IP Power 9255 in any fashion
- 4. Please contact the dealer If IP Power 9255 is not working properly.

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Table of Contents

CGI HTTP COMMANDS	27
6.) CONTROLLING THE DEVICE	<u>27</u>
LOGOOT	
LOGOUT	
TIME	
WAKE ON LANIP SERVER CONFIGURATION	
CHANGE PASSWORD	
E-M	
DDNS	
SYSTEM	
SETUP	
PING SETTINGS	
SCHEDULER	
POWER CONTROLS	
5.) WEB INTERFACE	<u>16</u>
USING IP SERVICE	14
Using IP Edit	
9255 QUICK INSTALLATION	
SETUP FOR INTERNET ACCESS	
BEFORE WE START	
1.) SETTING UP YOUR DEVICE	<u>10</u>
HARDWARE INTERFACE	9
3.) INTERFACE DESCRIPTION	<u>9</u>
PACKAGE CONTENTS	
FEATURESSPECIFICATION	
2.) PRODUCT OVERVIEW	_
·	
MINIMUM SYSTEM REQUIREMENTS	
NTRODUCTION	5
L/WELCOME	<u>5</u>
1.) WELCOME	_

7.) FREQUENTLY ASKED QUESTIONS (F.A.Q)	30
TELNET COMMANDS	29
TELNET COMMANDS	
c.) READ POWER COMMAND	
B.) POWER DELAY	28
A.) SET POWER COMMAND	

1.) Welcome

Introduction

The 9255 is an industrial grade single port relay perfect to power management through an Ethernet connection. This device can easily integrate with other devices and allow power control with your integrated system. With the 9255 robust design and high quality components it provides an added incentive to other devices or can be used independently. The 9255 brings an economical solution to a professional industry.



Minimum System Requirements

CPU Minimum Requirements

• Intel(R), Pentium(R), DUAL Core (D), CPU 3.0GHz or equivalent

Operating Systems:

- Windows Operating Systems (IE5.0+SPI & Firefox)
- 512 MB system memory or above
- 10/100 Ethernet switch/hub
- Sound Card: DirectX 9.0c compatible sound card
- Ethernet network port/card
- Network cable
- Internet (For remote access) or Ethernet Network (Internal Network use) with some type of Internet connection, (i.e. ADSL, Cable, Dial up or any other forms of Internet service)

Software

Windows XP Service Pack 2 or above.

Resolution of screen setting: 800x600 or higher





2.) Product Overview

Features

- 1.) Inrush Current relay design for extra protection.
- 2.) Designed to control T5 fluorescent lighting.
- 3.) Industrial single port Relay design network controller.
- 4.) Accessible with popular web browsers IE, Google Chrome, Netscape & Firefox.
- 5.) Supports up to maximum current: 8 Amp.
- 6.) Power surge protection design to protect against high voltage power surge.
- 7.) Designed to meet high voltage and current safety standard design and regulation.
- 8.) Reliability and testing certification
- 9.) Comes in 5 standard global socket types.
- 10.) Network protocols supported: Http, DDNS, DHCP, Virtual and Dynamic IP.
- 11.) SDK for own software development.
- 12.) Smartphone and IOS supported.
- 13.) Embedded web server No PC is required for it to work.

Specification

Power Cable Input:

Specification: 10AMP 18AWG 0.75 x 3C (Standard PC Power Cable)

Weight:

192.6 grams without packaging.

Dimensions:

(L x W x H): 8.5 x 7 x 8.5 cm

Casing: Plastic

Relay Specification:

Regular Use: Max. 8A / port

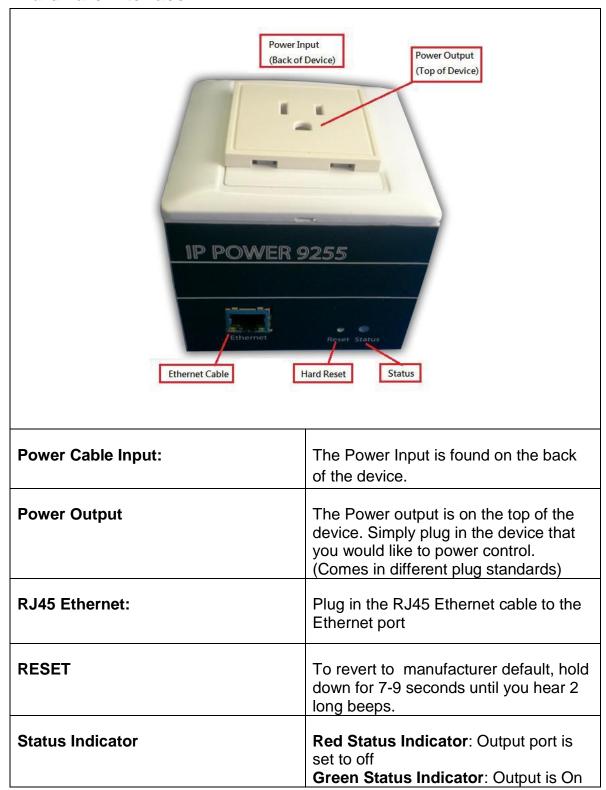
T5 fluorescent light control: 240Watt

Package Contents

1.) 9255 Unit x 1	
2.) 9255 Installation CD	CD will provide manual, software, and documentation on the 9255
3.) Standard PC Power Cable (Optional)	Specification: 10AMP 18AWG 0.75 x 3C

3.) Interface Description

Hardware Interface



4.) Setting up your Device

Before we Start

*Before setting up the device make sure of the following:

- 1.) All the package contents are all included if anything is missing please contact the dealer where the device was purchased from.
- 2.) Check that the power input cable is working correctly.
- 3.) Check the cables to make sure there are no problems with the cable.

Setup for Internet Access

To access the 9255 from the internet, the router will require port forwarding to be activated for your IP Power device.

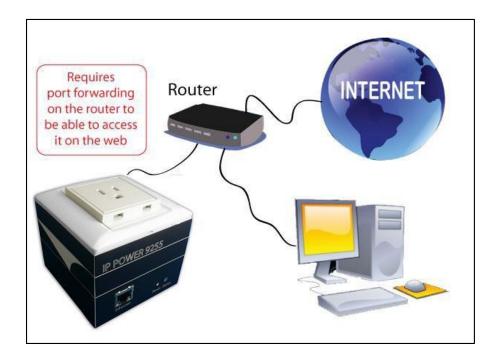
* Please refer to your routers manual on how to port forward the device.

For example

9255 IP Address: 192.168.100.200

Port: 8080

* On the router you will need to port forward both TCP / UDP to the IP Address 192.168.100.200 on Port 8080.



9255 Quick Installation

- 1.) Connect the Ethernet cable (RJ45) to the 9255 to your local area network.
- 2.) Then connect the power cable into the power cable input of the 9255.
- 3.) Connect the device that you would like to control to the output plug on the top of the 9255.
- 4.) Open the IP Edit device search tool from the CD.
- 5.) The device will automatically be set to DHCP and will show on IP Edit. (Refer to Using IP Edit for more details)
 - a. If no DHCP is detected the default IP and Login for the device will be the following

Default IP: 192.168.1.100 (When no DHCP is apparent)

Default Login: admin

Default Password: 12345678

- 6.) Then on IP Edit double click on your device and a Internet Explorer window will appear with the login screen.
- 7.) Simply login with the default login and password.

Default Login: admin

Default Password: 12345678

Using IP Edit

IP Edit is a search tool designed to search, configure, or access the IP Power 9255 from a local networked computer.

IP Power 9255 Default Login / Password

Default IP: 192.168.1.100 (When no DHCP is apparent)

Default Login: admin

Default Password: 12345678

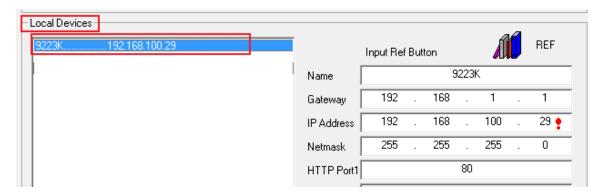
1.) Insert the CD provided with the product

2.) Install the software IP Edit to the desktop of your computer.

3.) Open IP Edit by clicking on the icon



4.) In the local devices section you will see your device show up if connected correctly.



- 5.) Select the 9255 device and the device information will populate on the right.
- 6.) Check to see that the gateway IP and the IP Address (9255) match your current network.

If not, type in the correct information, then hit the submit button to save changes.

For example:

If you have the following information regarding the 9255 and your network

Gateway: 192.168.1.1

Computer IP Address: 192.168.1.122

9255 IP Address: 192.155.2.26 Sub Netmask: 255.255.255.0

Port: 8080

Since the IP Address of the 9255 is the following: 192.155.2.26

You will need to make sure that the first 3 segments of your 9255 IP Address must match the first 3 segments of your gateway IP.

First 3 Segment of Gateway Address: 192.168.1.X

So your new IP Address for the 9255 should be: 192.168.1.26

New Network Information

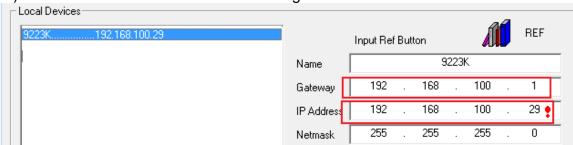
9255 IP Address: 192.168.1.26 **Gateway Address**: 192.168.1.1

Local Computer IP Address: 192.168.1.122

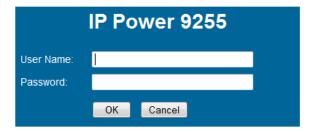
Sub Netmask: 255.255.255.0

Port: 8080

7.) Press the rescan button to see if changes have been made.



8.) Double click on the device in the local device section and an IE web browser with the device login will pop up.



9.) Type in the default login and IP Address to enter the device.

New Network Information

9255 IP Address: 192.168.1.26 **Gateway Address**: 192.168.1.1

Local Computer IP Address: 192.168.1.122

Sub Netmask: 255.255.255.0

Port: 8080

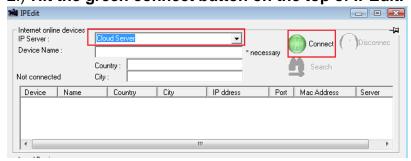
Default Login/Password: admin/12345678

Using IP Service

IP Service is a feature which allows you to search for the device easily without having to remember long complicated IP addresses. Instead, all you need to know is the device name of your IP Power device and you can easily find it on IP Service.

In the IP 9255 under the system configuration page, you can select the IP server that you would like the 9255 to go to. You can select from the Aviosys server or the Cloud Server. This function must be turned on to work.

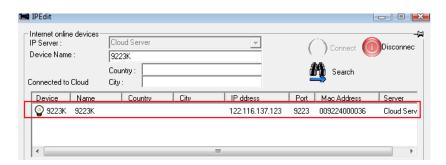
- * IP Power 9255 must be port forwarded for IP Service to work correctly.
- 1.) Open IP Edit and Select the server that your 9255 is designated to.
- 2.) Hit the green connect button on the top of IPEdit.



3.) Then type in the 9255 Name that you have selected for the device and press the search button.



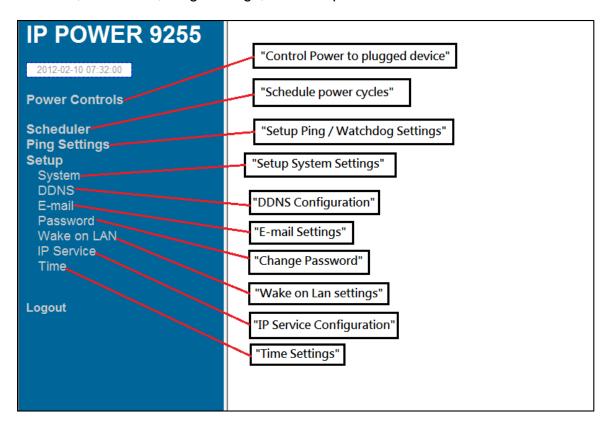
- 4.) Find your device and double click on the screen and a IE window will pop up connecting to your device.
 - *Your device must be Port forwarded for the login screen to appear.



5.) After you have connected to your device, type in the login and password for your device

5.) Web Interface

The web interface on the IP Power 9255 consists of 4 main sections. Power Controls, Scheduler, Ping Settings, and Setup



Power Controls: Turn off, Turn on, the socket to provide power to the device. **Scheduler:** Schedule specific dates or time to call an action to the IP Power 9255.

Ping Settings: Watchdog function to make sure your devices are responding normally.

Setup: System Configuration

System: Adjust main settings to device including IP Address, Gateway, Subnet

Mask, and etc.

DDNS: Configure DDNS functionality **E-mail:** Setup E-mail information **Password:**

Change password

Wake on Lan: Wake devices up that support wake on lan

IP Service: Configure IP Service functionality to find devices by name

Time: Setup time and date of device

Logout: Logout of the device

Power Controls

The Power Controls page is the panel where the user can directly turn off / on power to the attached device, set timers and name the outlet.



Name

In the name section the device name can be set. Simply type in a name you would like for the deice and hit the apply button. Name does not support special characters (eg. ! *%)

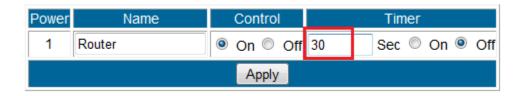
Control

The control section allows the user to directly turn on or turn off the device. Select the control that you would like to execute and hit apply to apply the settings. This will turn the device on or off.

Timer

The timer allows the user to set an amount of time before a control is activated. To do this, simply enter the amount of delay time in seconds you would like the action to occur. Select the On or Off and hit the apply button. When the timer has reached the time set it will execute your command.

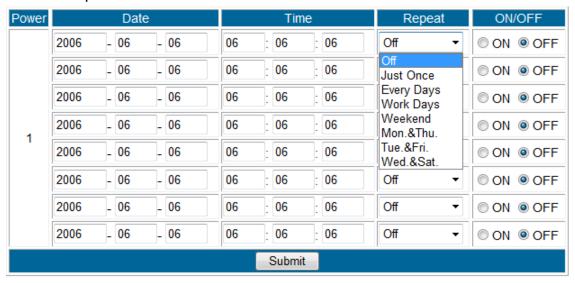
For example if Port 1 is on and I would like to turn it off in 30 seconds, the command may look something like the following.



^{*} The maximum number of seconds that can be set on the timer of the device is 9999.

Scheduler

The power schedule offers flexibility so the user can easily schedule events to control the power of the device.



Date: Enter the date in which the action will occur needs to be set.

Time: Enter the time of the action will occur. **Repeat:** Select the frequency of this action.

Just Once (Just one time)

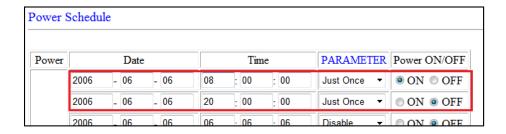
Everyday (Sunday thru Saturday) Workdays (Monday thru Friday) Weekend (Saturday, Sunday) Mon. & Thu. (Monday, Thursday)

Tue. & Fri. (Tuesday, Friday)

Wed. & Sat. (Wednesday, Saturday)

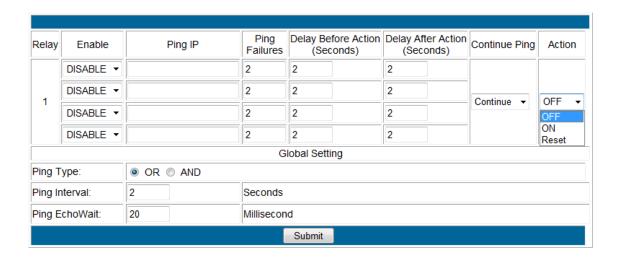
How to use:

If you would like to turn on the device at 8AM and turn off the device at 8PM, the device may be set in this fashion.



Ping Settings

The Auto-ping functionality allows the 9255 to check if the device have malfunctioned or needs to be restarted. If the device is no working correctly the 9255 Ping will activate the action that you have selected to reinstate the state of the device



Relay: A description of which on let to use Ping function

Enable: Disable or Enable ping settings

Ping IP Address: Specify the IP Address to Ping

Ping Failures: The number of ping failures before the Action is activated.

Action Delay (Seconds): After the Ping Failures has been reached, you can set the delay time (seconds) before the action is activated.

Some uses of this function would be for systems or computers that require a shut down time

Delay after action (Seconds): The number of seconds it takes the attached devices to startup. Once those devices start, the Startup Action will be activated to *continue pinging or stop pinging*.

Continue Ping: After start up Delay has been reached the start up action will either **Continue Pinging or Stop Pinging**

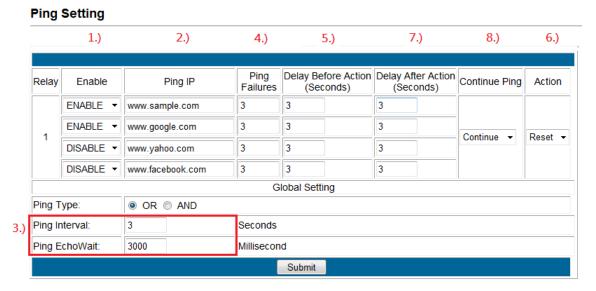
Action: When the number of Ping Failures have been reached. The device can be set to perform a Off, On, or Reset function.

Ping Type: Ping type sets a condition in the case where either all or 1 of the conditions are met the action will be activated.

For instance, if you set Ping Type to " **AND**", all the Ping IP's must fail for the action to be activated. On the other hand if you set Ping Type to " **OR** " as long as one of the Ping IP fails it will cause the action to be activated.

Ping Time Interval (Seconds): The number of seconds between each ping **Ping Response Time (Milliseconds):** The number of milliseconds the device will wait for a response from the pinged device if no ping is detected within this time it will be considered a ping failure.

Please view the example below for more details:



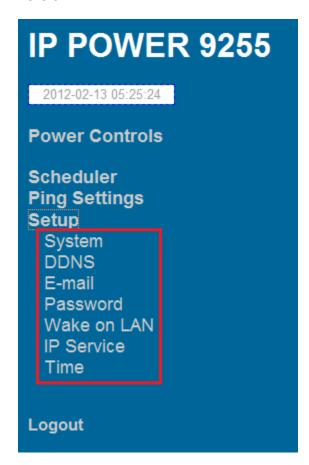
In the picture above:

- 1.) Power 1 Ping function is enabled for two websites
- 2.) The 9255 will ping the web address www.sample.com & www.google.com
- If there is a response within the Ping Response Time the 9255 will send another ping signal the set Ping Time Interval which is 3 seconds for this example.
- 4.) If the 9255 does not receive a response from the device it will constitute a **Ping Failure**.
- 5.) After 3 consecutive failure the device will go to the **Action Delay** section. In this case the device will delay for 3 seconds.
- 6.) When action delay has been reached the **Action** will be set off. Here we have set the 9255 to **Reset** the device.
- 7.) Once the device has been reset the 9255 will go into **Startup Delay** mode. In this case it is 3 seconds.
- 8.) After the startup delay mode has been reached the 9255 will check the **Startup Action** whether to continue or stop pinging the device. Here we have it set to Continue.

- 9.) Then the process starts all over.
- 10.) Since the Ping Type is set to or if any of the Ping IP constitute a failure then the action will be committed. If the Ping Type was set to "AND" all conditions must be met for the action to be activated.

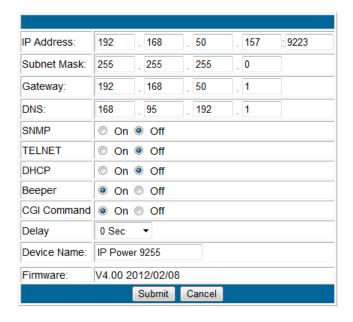
Setup

The setup page allows the user to configure the system settings of the 9255. This includes network information, IP Server, CNT, CGI commands, and the firmware version.



System

The system section allows you to make changes to the network information of the 9255. This includes changes to the IP Address, Gateway, Subnet Mast, and DNS. In additional under the system section you will also find other features including SNMP, Telnet, DHCP, Beeper configuration and more.



IP Address: IP Address of the 9255 device.

Subnet Mask: The subnet mask information can be populated here

Default Gateway: Enter the gateway for the router.

DNS: Enter the DNS information here.

Note: Not having the correct DNS information will affect the NTP and SMTP mail server.

SNMP: Enable or Disable SNMP

functionality

Telnet: Enable or Disable Telnet functionality

DHCP: This will enable or disable the DHCP on the device **Beeper:** This will enable or disable the beep on the device

CGI Command: This will enable or disable the http commands for the 9255 **Delay Switch**: The Delay switch will delay the device to activate the command to a designated amount of time. If set to 10 seconds after commands during scheduler or http commands are sent there will be a 10 second delay.

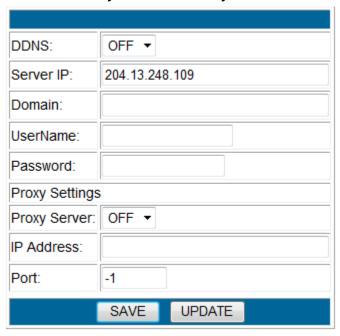
Device Name: Select the name for the device here, and this name will be used for registering the device on IP Service.

Firmware: Will provide information on the current firmware for the device

DDNS

The DDNS Setup allows the user to setup the 9255 with a DDNS server. This way instead of having to remember long IP Addresses, the user now can easily use a WWW link to connect to the device. This also is a good solution for users to have a dynamic IP Address where the IP continually changes and is not constant.

Note: We recommend using free services like <u>www.dyndns.com</u> for this portion. The device may react differently to other ddns services.



DDNS Server IP: The DDNS server IP **Domain:** Type in the dyndns domain name **Username:** Enter the DDNS username here **Password:** Enter the DDNS password.

Enable DDNS: When using DDNS make sure that it is enabled.

If user is using a proxy account, you will need to enable it here.

Proxy Enable: Select true of false to enable or disable the proxy server

Proxy IP: The Proxy IP is the IP Address of the Proxy Server

Proxy Port: Enter the port of the proxy server here.

E-mail

This section is where email settings are inputted. After the information is populated the 9255 will send notifications regarding the device when activated.

To send out mail successfully, please do set the DNS correctly. You can check with your ISP for correct DNS information.



Mail Server: Enter the mail server of email that you are using

Port: Enter the port of the mail server **Pop3 Server:** Enter the pop3 server name

User Name: Enter a valid username for the email server **Password:** Enter a password (can not over 8 digits)

Sender: Enter the sender email address

Receiver 1, 2, 3: Enter the receiver email address

Subject: Enter a subject line for the email so that the received would be able to

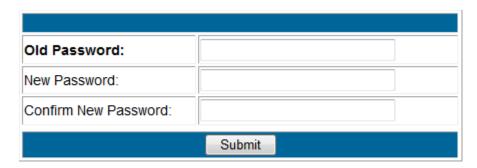
identify the email

Mail Body: Enter the information that is in the body of the device

Note: Not all email servers may be compatible with the 9255. Please see the FAQ section of the manual for a list of compatible Email providers.

Change Password

The change password function, will allow the user to change the current password of the device.



Changing the password of the device:

- 1.) Type in the old password for the device
- 2.) Then type in the new password maximum of 8 characters
- 3.) Repeat the new password again
- 4.) Then hit the submit button.

The login required option allows the user to choose whether they would like to disable login capabilities for the device.

Wake on Lan

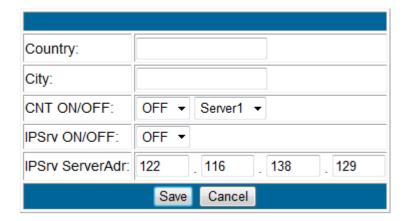
The network wake up function allows the 9255 to wake up computers, servers or systems that have a wake on lan capability. This functionality is not available on all PC's and requires the motherboard or Ethernet card to have Wake on Lan support for this functionality to work correctly.



Simply just type in the Mac address of the system that you would like to start up and hit the send button and the device will be activated.

IP Server Configuration

The IP Server Configuration page is where the 9255 can be configured to connect to IP service.

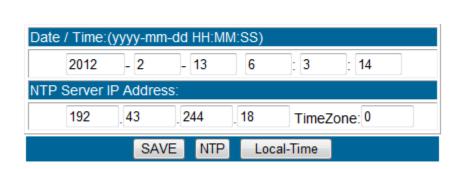


IP service allows you to easily find your device off the web or off the google cloud server without the need to remember long IP Addresses. Instead you can find your device easily just by searching with the name of your device.

Time

The date and time settings allow the user to synchronize the 9255 with their local time or a NTP server.

Date / Time



NTP: Network Time Protocol can be entered into the 9255. Simply just enter the IP Address of the NTP Server and hit the NTP button to synchronize. Then press save.

* For NTP to work correctly the DNS server must be configured correctly on your System configuration page

Local Time: The local time gets the time of the PC that is currently being used.

Logout

Click on the Logout link after you finish each session of using the IP Power 9255. This will ensure that any other person that uses the device next will not be able to control the devices without logging in.

6.) Controlling the Device

CGI HTTP Commands

Http commands allow you to control the device with commands. The basic commands are provided below.

There are two ways to input http commands with authorization required

1. Password in http:

http://login:password@ipaddrss:port/set.cmd?cmd=command

2. Password not in http:

http://ipaddrss:port/set.cmd?user=login+pass=password+cmd=command

Note: If you use the password not in http: command you will need to enter it when the browser asks for the password.

a.) Set Power Command

The Set Power command allows you to control the devices on/off through the http commands. With this command you can integrate can integrate the 9255 with any other system.

Outlet	Power On	Power Off
Output 1	61 = 1	61 = 0

Ex. For Single Port Control On

http://192.168.1.3/set.cmd?cmd=setpower+p61=1

Output: P61=1

Ex. For Single Port Control Off

http://192.168.1.3/set.cmd?cmd=setpower+p61=0

Output:P61=0

b.) Power Delay

The Power delay command allows you to delay the set power command.

Command format:

http://ip:port/set.cmd?cmd= setpower+p6x=?+p6xn=?+t6x=aa

x means output number: 1 or 2 or 3 or 4

? means on or off : 1 = on, 0 = off

p6xn means 2nd action of output x

t6x=aa means delay aa seconds between the 2 actions

(aa range = 1 - 9999 seconds)

Ex. Turn ON Output #1 for 30 Seconds then turn Off

http://192.168.1.3/set.cmd?cmd=setpower+p61=1+p61n=0+t61=30

Ex. Turn ON all 4 ports for 15 Seconds then turn Off

http://192.168.1.3/set.cmd?cmd=setpower+p61=1+p61n=0+t61=15+ p62=1+p62n=0+t62=15+ p63=1+p63n=0+t63=15+ p64=1+p64n=0+t64=15

(there is no space between command)

c.) Read Power Command

Set Port On/Off
 http://192.168.1.3/set.cmd?cmd=setpower+p61=1 (relay open) , setpower+p61=0(relay closed)

P61=1

2. Read Port

http://192.168.1.3/set.cmd?cmd=getpower

P61=1

Telnet Commands

The 9255 supports telnet protocol and can be controlled in a telnet enabled environment.

To Login to the 9258 in telnet

1.) Make sure to go to command prompt and type in Telnet and the IP Address of your 9258 device.

```
C:\>telnet 192.168.1.153
9255NTelnet command shell
Please input username and password!
9255NTelnet-> admin:12345678
```

2.) Then type in the login and password in the following format. admin:12345678

Telnet Commands

Help: The help command will provide all the commands available on the 9258. To get the commands in help type: help in the telnet protocol.

```
9255Telnet-> help
Available commands:
setpower - Set power status
getpower - Read power status
exit - exit shell
```

Set power: The set power command allows the device to turn on and turn off ports on the device. To set power on the device type

```
9255Telnet-> setpower p61=0

Power Status : 0

9255Telnet-> setpower p61=1

Power Status : 1
```

setpower p61=1: Port On

setpower p61=0: Port Off

Get power: The get power command gives you the current status of the device. To get power on the device type:

```
9255Telnet-> getpower
Power Status : 1
9255Telnet-> setpower p61=0
```

When get power is typed all 4 ports will show whether the ports on on/off using 1's and 0's.

7.) Frequently Asked Questions (F.A.Q)

Please visit our FAQ section on our website for the latest and most updated information on this product. You can visit our site at: www.Aviosys.com

Q1: I forgot the password and can not enter the administration page now, what can I do?

A1: Use username "super user" when log in webpage and then click "OK" turn power off for few second and then turn on ON. 9255 will to set back to default password. (There is space between super and user.)

Q2: I can not get the 9255 IP address by your software "IPEDIT"

A2: Please refer the following possible parts for this 9255 not been searched by IPEDIT

- 1. Boot up successfully: Please reboot the 9255 and check if there are 1 short beep after 3 seconds. This beep means the device boot up successfully. If not, the device may have issue.
- 2. Network card : Please check if there are morn that two network card include wire / wireless / dynamic in the PC which used IPEIT software . IPEDIT only support single network PC , please disable the other network connection / functions.
- 3. Anti Virus software / Firewall : Please turn off the antivirus software firewall temporary.
- 4. Power: If there is no power go to 9255, please check the fuse part. There will be no power for 9258 if the fuse buttons is pup up not easy/flexible to press as it was by over loading for long time, please press the fuse back and the power will go to 9258 to boot up.
- Connection: Please make sure that the 9255 is under same router with the PC used IPEDIT. It
 is fine to connect across multiple routers but it need to setup the MASK part
 which need some knowhow.

Q3: How to enable NTP function?

A3: To work NTP, please do connect to Internet and 9255 will auto connect to NTP server.



1. Save: Save the setting & Disable NTP function.

2. NTP: Enable NTP function.

3. Local time : Use the local time of the controlled PC $\&\,$ Disable NTP function .

Please refer the picture of the NTP page buttons functions:

- 1. Save: Save the setting & Disable NTP function.
- 2. NTP: Enable NTP function.
- 3. Local time: Use the local time of the controlled PC & Disable NTP function.
- NTP setting procedure :

Step 1: Fill the IP of the NTP server and also the time zone. About TIME ZONE: If in JAPAN, please fill 7 in the section. If in Taiwan, please fill 8.

Press "SAVE" to save the setting

Step 2: Press "NTP" buttons to enable the NTP function.

Q4: How to I revert back to Manufacturers default settings?

A4: Hold the reset button for at least 5-7 seconds and you will hear two long beeping sound. Then use IPEdit to get the IP of the 9255.

Default IP: 192.168.1.100 (When no DHCP is apparent) Default

Login: admin

Default Password: 12345678