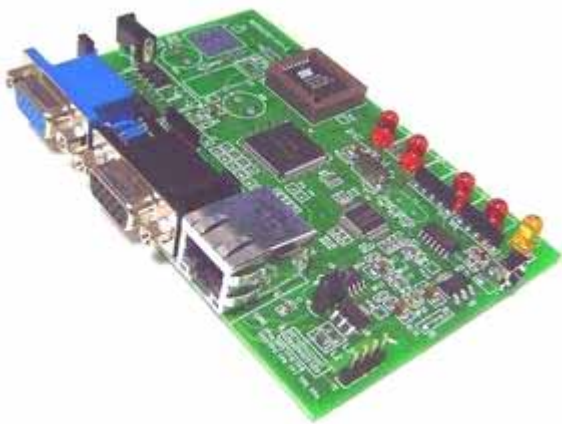


**IP Sensor 9201**  
**Internet Sensor**  
**User Manual**

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# User Manual



IP Sensor 9201  
Version: V1.06  
2006.02

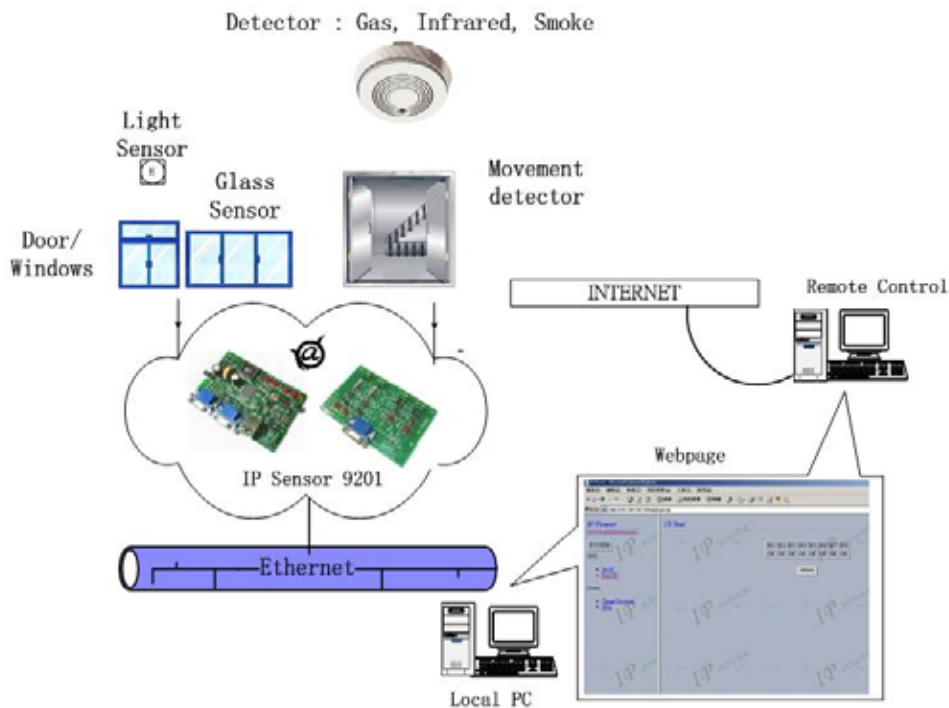
**Warning:** any changes to this equipment without permission may cause damages to your equipment! This equipment has been proved to can be prevented from the influence of harmful electronic jamming in normal business use condition.

#### IMPORTANT NOTICE

1. IP SENSOR 9201 is deigned on the fundamental principle of learning in kit.
2. IP SENSOR 9201 is deigned to be used in-door, we have no responsibility for the possible damage in adverse circumstances, especially in the rain. .
3. Please use the DC adaptor provided by the dealer, we have no responsibility for the possible damage in using other adaptor.
4. Do not use IP SENSOR 9201 in strong shaking condition
5. Please contact the dealer If IP SENSOR 9201 works improperly.

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**Sink signal :** By Reed switch or any non-voltage sensor to detect if any change or movement.  
For instance : Door, Windows ,Safe box, Drawer and security device.

**Source signal :** By source sensor to detect if any change or movement.  
For instance : Use in Detector like Smoke / Gas / Density Detector , Infrared Detector , or Valve like High-temperature / High-pressure / Gas / Automatic control valve

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# 1. Introduction

Imaging that the household appliances can report the situation in your home to you. Through the network, you can check the situation in your home at any moment to avoid any possible accident, such as the windows, doors, water and electricity. Or the sensors installed in your home can transmit the detected information to the network, so you can examine the household appliances in your home or look around your home by using the camera. With the REMOTE control technology, engineers no longer need to travel from one place to the other when the subsidiary companies around the world need for technical support.

Browsing on Internet has already becomes a daily habit of the modern people. You can examine the state of your household appliances, the windows and the doors, or the light just through the Internet network. Combined with all kinds of magnetic reed switch or any kinds of active security equipment, you can beware of the state of all sensors. It can be used in security equipments, the people's living daily supplies, or automatic machines. It is an economic solution without any limitation of special computer system or software, even no need to open the case of computer. It includes two sets of short circuit signals and two sets of voltage signals. You can receive the message from four equipments at any time and anywhere with a computer linked to the network (Internet or Ethernet). It will save your time and you no longer need to rush from place to place.

## Feature:

1. Built in web server, can be used through the Ethernet network or Internet network.
2. Built in network browser interface, no need any other software you can receive the signal online or online PC anywhere in the world.
3. Sense 4 sets device: There are two sets of **Sink signals** and two sets of **Source signals** for different application.
4. Supported HTTP, fixed IP in Internet network, DHCP, and virtual IP in Ethernet.
5. Security passwords identify & manual reset to default settings.
6. Supported multiple platforms and browsers---**Internet Explore & Netscape**.
7. Easy installed and can be update online
8. Separated LED indicates the state of each device.
9. Safety designed for high voltage resistance and protection for leakage of electrical currency and using nonflammable material.
10. Polarity protective— no damage to your equipment if you reverse the polarity in installation
11. Universal Power voltage supported within 90-240 Volt.
12. Embedded " WATCH DOG "
13. It can be used separated or cooperate with other products of OUR such as IP Kamera, IP Video and IP Power 9202 in all-directional network security monitoring, control and detection.
14. **Support GPRS – setting by for online Cell phone ( item limit) .**
15. **Support SMTP : Send IP address by E-mail as login and send e-mail as detecting sensor trigger.**

Specification: 1. DC 5V (AC90-240 input) 2. D-SUB In port. 3. RJ45

**Sink Signal:** use magnetic reed switch or other passive sensors to detect the change of objects, such as windows, doors, household appliance, drawers, and safe case or security equipments.

**Source Signal:** through voltage sensor to detect the change of equipments, such as smoke detector, gas detector, light detector and movement detector.

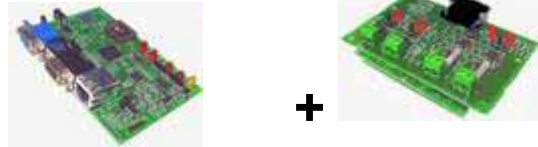
**Remote detect application field:** associates any object you want to detect through the network, windows, doors, or security equipment.

**Industrial application field:** bank, financial security system, jewels shop, casino, cash register in supermarket, park, traffic control, military equipment and airport.

## 2. Before you start

### 9201 package contents

*✍* A set of IP Sensor 9201



*✍* One network wire with RJ 45 port

*✍* One adaptor with 1A, 110~220 volt  
AC input

*✍* One 15 Pin D -SUB cable

! Disc (include the rapid installation manual).

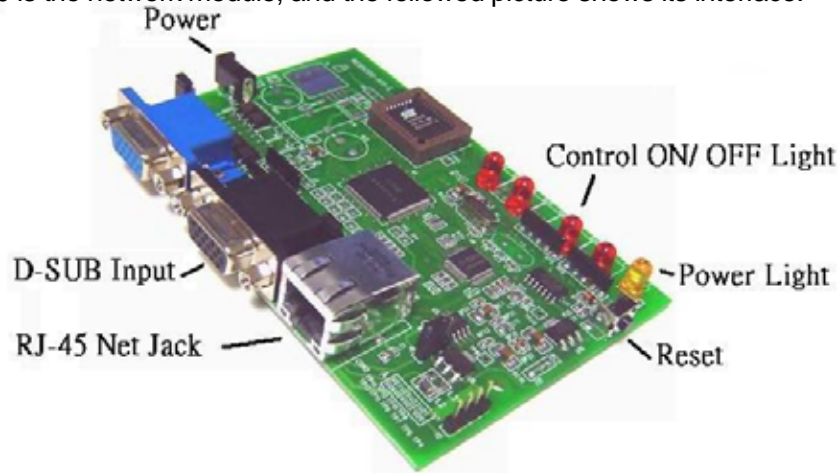
### Minimum System Requirements

- Minimum Intel Pentium II 300MHz/compatible AMD processor
- WINDOWS operating system (IE5.0+SP1)
- Minimum 64MB RAM
- VGA Card: with capability of displaying full-Colors and DirectDraw support
- Network card with RJ45 port
- Ethernet Hub / Router
- Internet network (Ethernet, ADSL or other ways, depends on whether you need far end control ability or not)

### 3. Interface Description

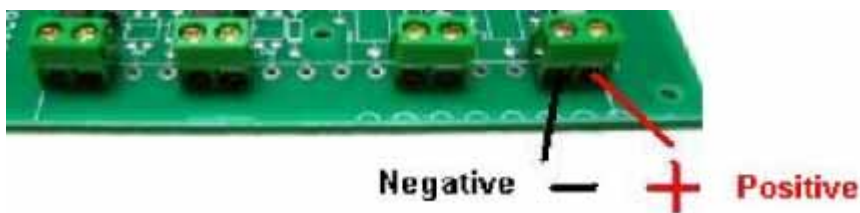
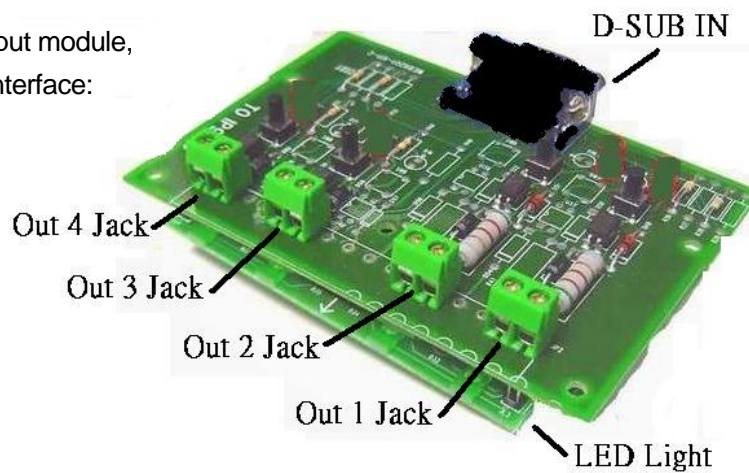
IP Sensor 9201 has two modules :

1. 9200 is the network module, and the followed picture shows its interface:



Note: The **blue D-SUB** is no function in IP Sensor 9201..

2. 9201 is the output module, below shows its interface:



For the request of different electric switch, 9201 offers: two sets of **Source signals-- Out 1 & Out 2** and two sets of **Sink signals- Out 3 & Out 4**:

**Sink signal:** use magnetic reed switch or other passive sensor to detect the change of objects, such as windows, doors, household appliance, drawers, safe case or security equipment.

**Source signal:** through voltage sensor to detect the change of equipments, such as smoke detector, gas detector, light detector and movement detector.

NOTE: Because of the polarity protective function, it won't damage the product if you reverse the polarity in installation. But it will cause the product cannot work properly.

## 4. Hardware & Software installation

Before you start:

- Check the package to make sure the contents is complete.
- Prepare one Ethernet HUB, or Router
- Check the voltage of the power supply to make sure it is AC 110-240 volt.

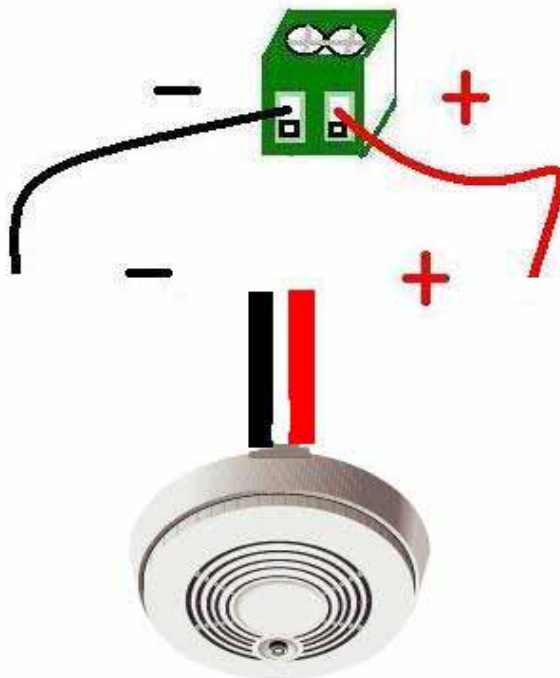
### Hardware Installation :: Connect RJ45 first then POWER jack

- 1 Connect the 9200 to HUB through netting wire.
- 2 Connect the 9200 to 9201 through attached cable.
- 3 Connect the HUB to the Internet (May through ADSL/XDSL modem).
- 4 Connect the power adapter to the 9200.

Connect power adapter of IP Sensor 9201 and turn on the PC.

### Hardware connection (recommend)

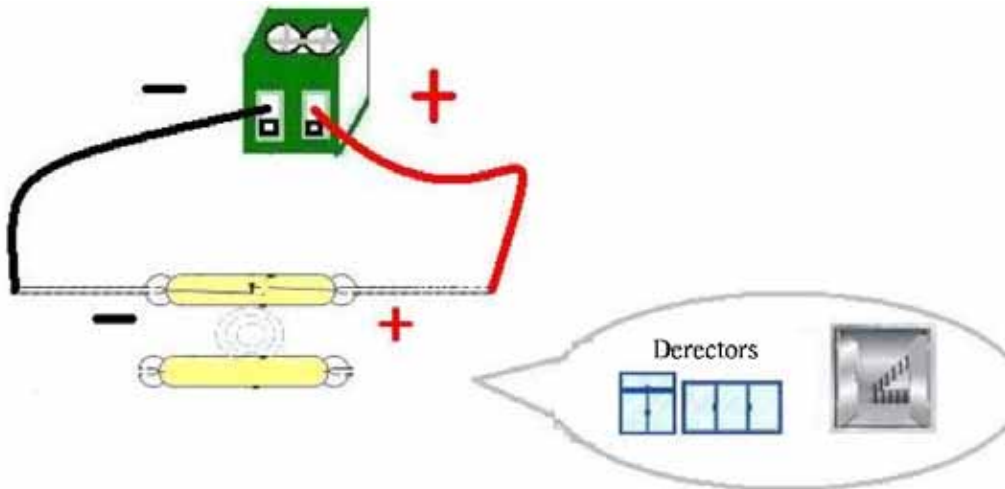
1. Source signal area-- IN1 & IN2: can be connected to voltage signal detectors such as smoke detector, light detector and gas detector.



2. Sink signal area—IN3 & IN4: can be connected to magnetic reed switch as the follow figures



It can be installed in the entrance guard or security equipment such as doors, windows, drawers and safe boxes at residential. Office. Warehouse. Or commercial and industrial.



**PS:** magnetic reed switch: using the magnetic field of the magnet to produce a signal when there is a movement happened in switch.

## Software installation

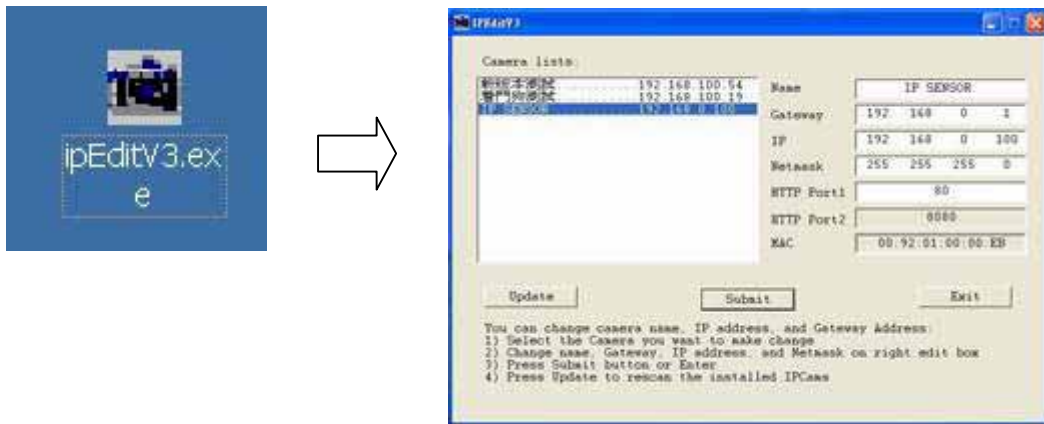
Having connected the power supplies and network cable with RJ45 port to the 9200, please install the software as the follow steps:

1. Start your computer, put the install disc in the CD-ROM, and then find the file named ipEditv3.exe in the install disc.
2. Copy the file to desktop or any directory you want save to.
3. Start the initial setting process following the construction in next section.

## 5. Initial Settings

### Initial settings through the Ethernet

1. Double click the ipEditV3.exe



2. All the IP Sensor 9201, IP Kamera 9000 series / IP Video 9100 series in the same subnet of the Ethernet will be found and be display in the window by the software. The default name of IP Sensor 9201 is **IP Sensor**.

#### IPEditV3 can adjust Name / Gateway / IP / Netmask / HTTP Port1)

Name	IP SENSOR
Gateway	192 168 0 1
IP	192 168 0 100
Netmask	255 255 255 0
HTTP Port1	80
HTTP Port2	8080
MAC	00:92:01:00:00:EB

2-1 : Change Name : MAXIMUM 10 DIGIT

2-2 : After Change Gateway , IP, Netmask (xxx.xxx.xxx.0 ~ xxx.xxx.xxx.254) or Port1(1~32767) , the device will turn off DHCP .

2-3 : Click the IP in Lists will open the webpage , please type the IP Address if using Netscape

3. Click the equipment's name that you want to edit in the left of the window; it will turn fuscous, the equipment's name and IP will display in the windows, you can rename (use numbers and letters). After that, click the update button and the new setting will be work in 20 seconds.

4. Double click the name of the equipment you want to control, the IE browser window will open and connected to this equipment in that Ethernet automatically. You also can type the IP address of the IP Sensor 9201 in the IE browser to open the web page of IP Sensor 9201. We suggest you to update the IE to version 6.0 with SP1 or higher if your IE notices you the security level is too low to open that web page.

**NOTICE:**

1. Make sure the RJ45 network wire have been connected correctly and the 9200 are power on.
2. When execute "ipedit3.exe", as ISP support DHCP, you can find the dynamic IP address. Click the IP address; you can get in the webpage. If not support DHCP, after connect few second, the setting will change to FIX DYMANIUC IP address:

3. If can not get in the 92XX web page, please set the segment of IP 9060(A) to be same as your PC.

\* You can get your PC network information – IP Address, Subnet Mask and Default Gateway by step: start → execute → key "cmd" in dialog → key "ipconfig" in MS-DOS mode



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Chiu>ipconfig

Windows IP Configuration

Ethernet adapter 區域連線:

    Connection-specific DNS Suffix . : 
    IP Address. . . . . : 192.168.100.31
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.100.254

C:\Documents and Settings\Chiu>
```

**The last digit of IP address can be any number between 1~254, but can not be same as your PC.** If using in any PC, just use HUB and type the 192.168.0.100 in Browser or use "ipedit.exe" then you can get in the webpage.

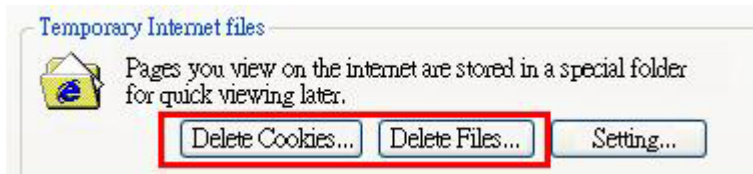
\* Same **SEGMENT** : The first 3 number of IP address is same - XXX.XXX.XXX.abc. The part of XXX is same. Fro Example : IP address is **192.168.1.100**, then another IP address **192.168.1.123** is the IP in same segment .

4. The default username and password of IP Sensor 9201 are: Username: admin  
Password: 12345678

If forget the new password, you can key in superuser in username, and hardware reset the device to set the default setting Password: 12345678. (for security concern).

5. Please note the program "ipEditV3.exe" is for easily find dynamic IP address and change the device Name only.

6. **Note** : if stay for long time as in webpage , you would be unable setting and see message “ **Cookie time out** “ , **please go to** IE to change setting: “ Tools “ → “ Internet operations ” , please click “ Delete Cookies “ and “Delete files “ in “ Temporary Internet file “ .



## 6. Control and settings through the Internet

Type the new IP address of IP Sensor 9201 in the address field and you can enter the login web page. Input the default password 12345678 (you can change the password as you wish) , click the OK and then you can enter the Web Control page.

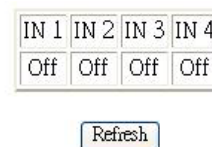
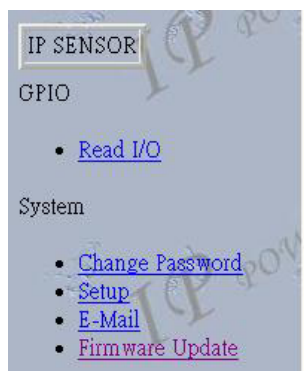
### Welcom to IP Family WebControl

Please enter password. (maximum = 8)

User Name

Password

1)Maximum 8 digit for Password .



## Control setting of 9201

IP Sensor 9201 can detect four different input signals.

**IN1&IN2** are two set of contacts. When it is **on**, it indicates there is voltage difference between two contacts. When it is **off**, it indicates there is no voltage difference between two contacts.

**IN3&IN4** are two sets of contacts. When it is **on**, it indicates the circuit between two contacts is turn on. When it is **off**, it indicates the circuit between two contacts is turn off.

## Check the input signal

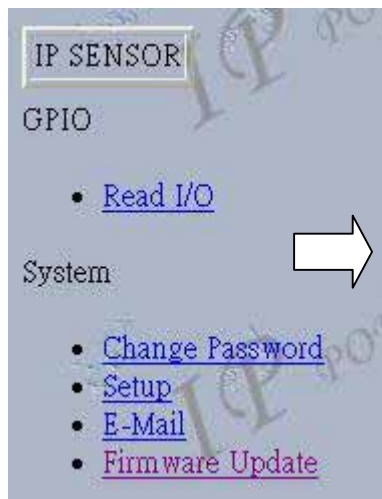
IN 1	IN 2	IN 3	IN 4
Off	Off	On	Off

Click the **refresh** button and you will see the similar figure like this. It represents the state of the four sets of input signals (there may be some delay, it up to your network).

You also can press the test button named IN1, IN2, IN3, IN4 in the PCB of 9201, click the **refresh** button in the web page at the same time and then observe whether the input signal state shows **ON** in the web page.

## Setting the password for IP Sensor 9201

Click the **change password** option at the left window and you can enter the change password page. Follow the instructions, fill in the old password and new password, then click the **apply** button to confirm.

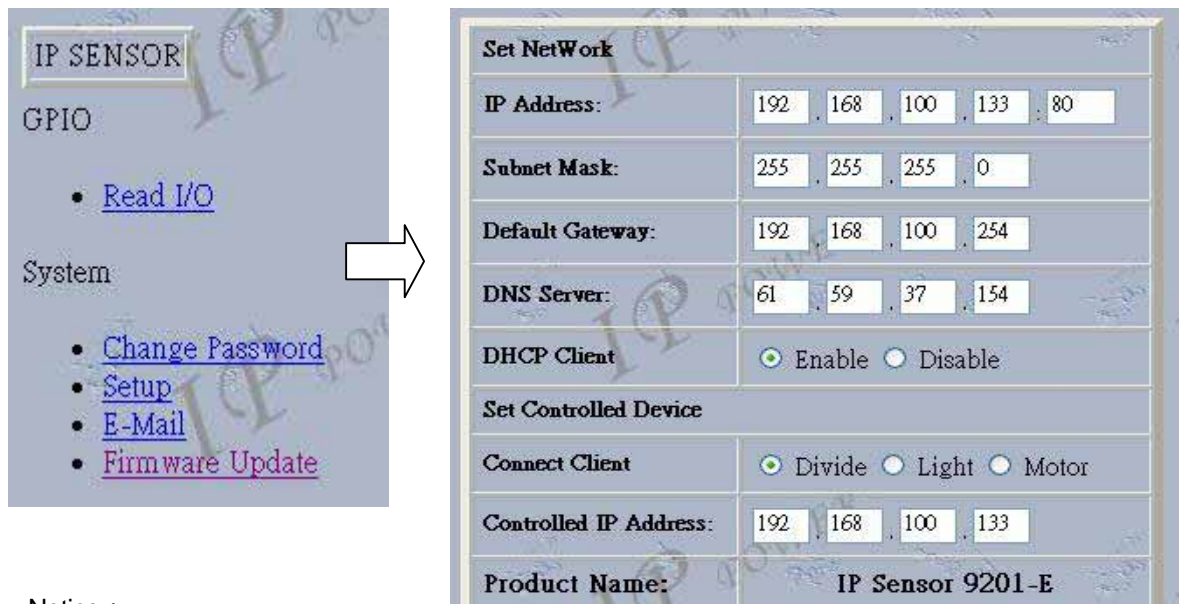


The screenshot shows the 'Change Password' page. The title is 'Change Password'. There are three input fields: 'Old Password:', 'New Password:', and 'Confirm New Password:'. Each field contains a series of dots representing masked characters. At the bottom, there are three buttons: 'Apply', 'Reset', and 'Cancel'.

## Setting the IP address for IP Sensor 9201

1. Setting a fixed IP address for IP Sensor 9201.

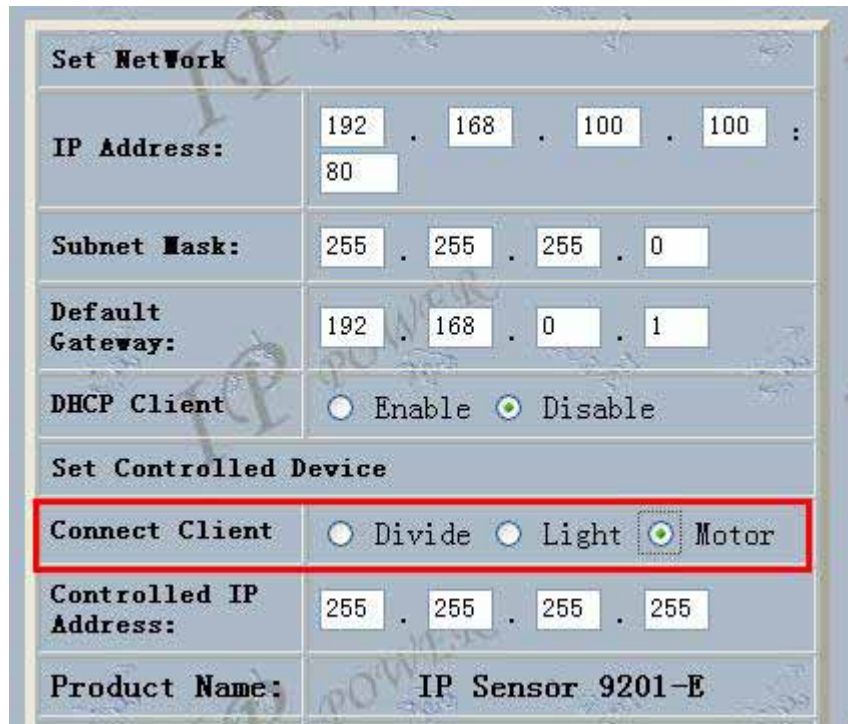
Click the **setup** option in the left side of the window and you can enter the setting web page. Then follow the instructions fill in the new IP address, mask, and gateway for IP Sensor 9201, forbidden the DHCP service, click the **submit** button to confirm.



Notice :

- 1) The format of IP Address : xxx.xxx.xxx.xxx:yyyy , the port range of yyyy is 1~32767.
  - 2) The range of Subnet Mask is xxx.xxx.xxx.0 ~ xxx.xxx.xxx.254.
  - 3) If disable DHCP , you can set TCP Port and Default Gateway ; the default port of DHCP Enable is xxx.xxx.xxx.xxx:80 , and the Default Gateway is supply by server .
  - 4) If use the port other than 80 , you need to key full address <http://xxx.xxx.xxx.xxx:yyyy> in IE/ Netscape , or use the attached program IPeditV3.exe to login. .
- 5) When setup the setting please confirm the IP Address & Controlled IP Address is same address.**

**Special Hardware Inter-Control - 92XX series : Use 9201 / 9212 ( DI part) to control ( IP Power 9212 & 9202 / IP Sensor 9201 / IP Motor 9203 )**



1. 92XX series Inter-Control function : Use DI (Digital Input ) sensor device as main controller A ( Like 9212 or 9201 ) to controlled device B ( like 9212 / 9202 / 9203) .

Correspondence connectors :

Main Controller					
9212	IN 1	IN 3	IN 6	IN 8	IN 3 + IN 6
Controlled device					
9202	IN 1	IN 2	IN 3	IN 4	X
9212	IN 1	IN 3	IN 6	IN 8	X
9203	Keep turn left	Turn left-1step	Turn left-1step	Keep turn left	STOP

Main Controller					
9201	IN 1	IN 2	IN 3	IN 4	IN 1 + IN 3
Controlled device					
9202	IN 1	IN 2	IN 3	IN 4	X
9212	IN 1	IN 3	IN 6	IN 8	X
9203	Keep turn left	Turn left-1step	Turn left-1step	Keep turn left	STOP

2. Connect Client setup :
  - A. Divide : this device word separate ly and do not use Inter-Control
  - B. Light : This device can control 9202 / 9212 (IP Power) - by change the default setting of : Normal close or normal open
  - C. Motor : This device can control 9203(IP Motor) –control the direction of turning..
3. Controlled IP Address: Setting the Ip Address of controlled device.

In Inter - control mode when transfer , . the Out Light(P6.1/P6.2) will always on , if the main controller freeze the Out Light P6.1 is always on , if the controlled device freeze , the light of P6.2 **is always on.**

- 2-1 For example : Control Ip Motor by DI board of IP Sensor 9201**  
**Step 1 : Go to SETUP , change Connect Client and set as Motor ,**  
**Step 2 : key in the IP address of controlled device (IP Motor)**

The screenshot shows the 'System Configuration' web interface. It is divided into two main sections: 'Set NetWork' and 'Set Controlled Device'.

**Set NetWork:**

- IP Address:** 192 . 168 . 100 . 100 : 80
- Subnet Mask:** 255 . 255 . 255 . 0
- Default Gateway:** 192 . 168 . 0 . 1
- DHCP Client:**  Enable  Disable

**Set Controlled Device:**

- Connect Client:**  Divide  Light  Motor
- Controlled IP Address:** 255 . 255 . 255 . 255
- Product Name:** IP Sensor 9201-E

Red boxes highlight the 'Motor' radio button and the 'Controlled IP Address' field.

**Step 3 : Click Submit to confirm setting , when the count windows is off , the new login windows jump out as following pictures.**

The screenshot shows the 'Welcom to IP Family WebControl' login window. It contains the following elements:

- Header:** Welcom to IP Family WebControl
- Text:** Please enter password. (maximum = 8)
- User Name:** admin
- Password:** (empty field)
- Buttons:** OK and Cancel

## SMTP for E-Mail : receive IP address & inform as Sensor trigger

IP Power can setup the e-mail address for receive change from sensor part . As setting up the receiver e-mail address, IP Power will send its IP Address to receiver .

Receiver:	12345678@abcd.com 87654321@dcba.com
Sender:	abcd@168.com
Mail Server:	168.com
Mail Password:	*****
Warning MSG:	Alert

1 2

Apply Send Cancel

Setting Sample :

Receiver: 12345678@abcd.com 87654321@dcba.com

Sender: abcd@168.com

Mail Server: 168.com

Mail Password:

Warning MSG: Alert

After type in all the information please click “apply” first to save the change and then “send ” to send mail.

There is status bar next to at the clock : There are four possible situation for sending e-mail.



- Mail send OK** : Receiver should receive mail in short time.
  - User or password error** : After change the username and password please click “apply “ To save setting and click send to
  - Mail ahead sending , please send later** : Mail server was block as lots mail
  - Connect time out , mail to be dropped** : please login again
- ”

- 1) Receiver : can be 2 receiver e-mail address , please use space between two e-mail address. After setup, ever time you login , IP Power 9212 will send receiver the IP address.
- 2) Mail Server : must be a mail server which can supply e-mail transfer and support SMTP function .
- 3) Warning MSG: the title of the e-mail.
- 4) The maximum digits of each item:
  - a) Receiver : 0x200(512 bytes)
  - b) Sender : 0x30 (48 bytes)
  - c) Server: 0x30 (48 bytes)
  - d) Password: 0x30 (48 bytes)
  - e) Warning MSG(text) : 0x50 (80 bytes) –can be empty
- 5) Mail contents include : "From:", "To:", "Subject", "IP Family Address"

### **GPMS for Cell Phone : Support WAP.**

IP POWER 9212 support GPRS function , you can use cell phone ( with online function )  
To setup the online device ( real IP address) as operate in browser .:

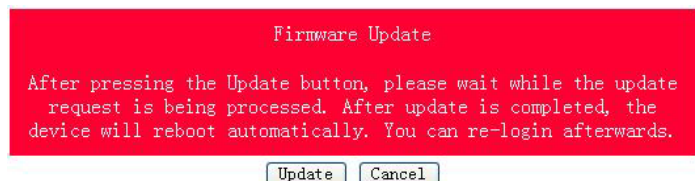
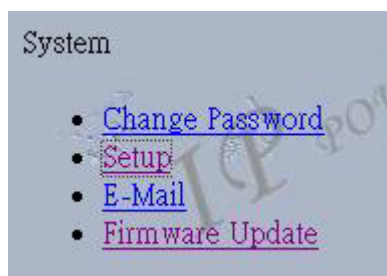
- 1) Address setting : add “ /wap” after your online IP address .  
For example : <http://65.59.37.123/wap>  
or appointed port <http://61.59.32.147:8080/wap>  
the interface is same as in IE(Internet Explore) .
- 2) The IP Address must be real ip address and can be work on Internet..
- 3) The name of IP device must be English , or will be encode in wap.
- 4) Before using WAP control, please check if your cell phone support GPRS and if your number had apply online service.

We support : Motorola V878 , Sony Ericsson T630 and Siemens.

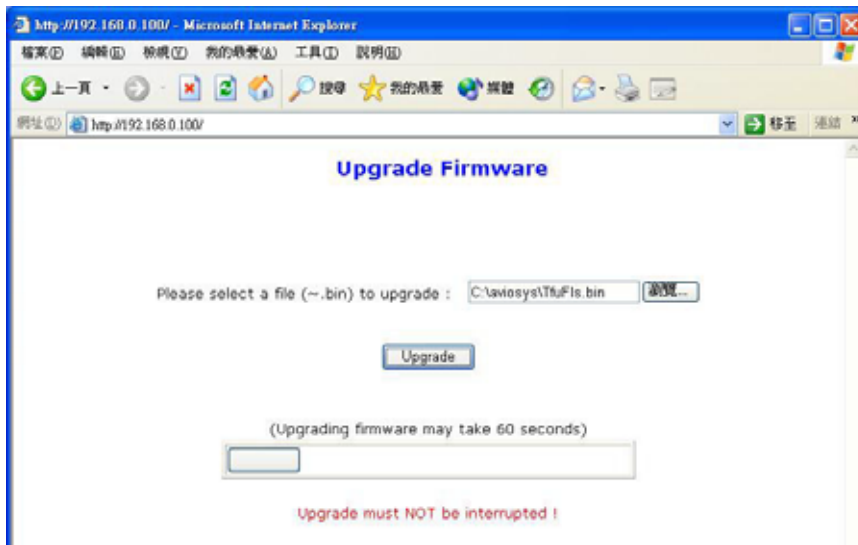
### **Software online update :**

For wild application in different filed , IP POWER 9212 support online update .It safe time and money as developing your product .

- Step 1 Login the webpage
- Step 2 Click Firmware Update and click update



**Step 3 Click browser to use latest Firmware then click Upgrade to update Firmware**



**Step 4 after finish update please wait some second and then re-log In**



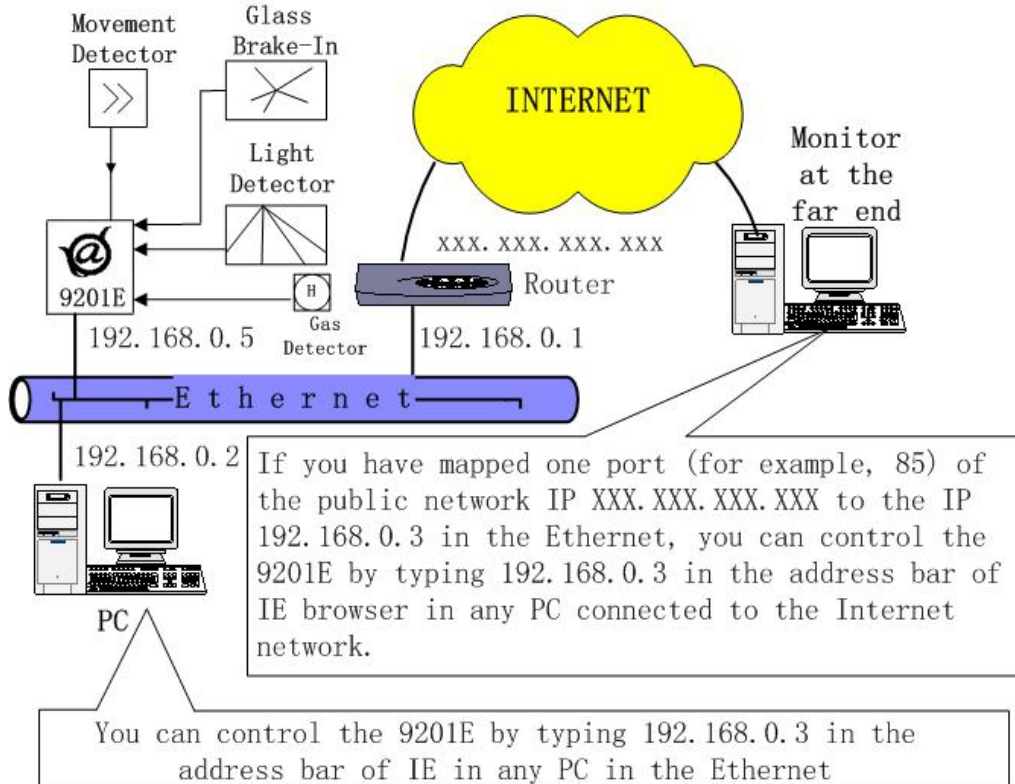
**ps : If use DHCP please enable DHCP**

**Note: :**

- 1)If the Port is 80 then you can directly update.**
- 2) If update fail , you can manual reset the device and update again .**

## 7. Setting the IP Sensor 9201 through the Internet

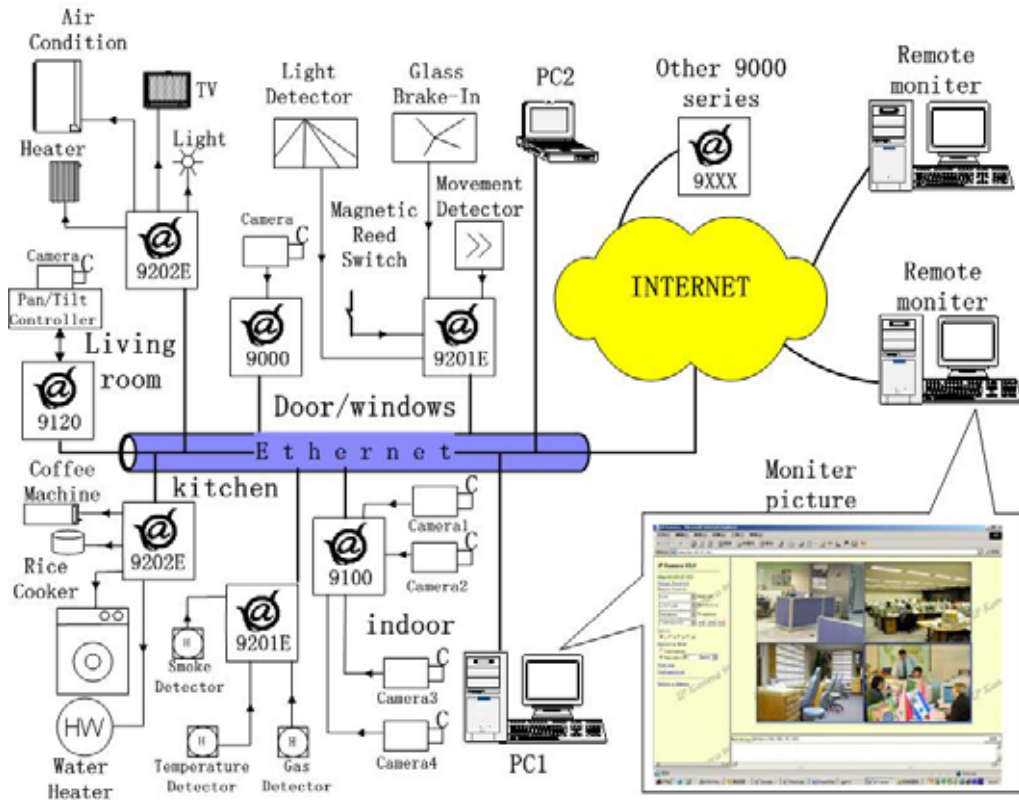
After you have setting the Ethernet and router, you can access the IP Sensor 9201 from the Internet. It will bring you all kinds of convenience.



You can install several IP Sensor 9201s or other product of 9xxx series in Ethernet, assigning them different IP address and mapping the port of router to each one. Then you can access each one of them from the Internet. See the section six for operation instructions.

## 8. Application associated with other IP network products

You can associate the IP Sensor 9201 with other IP network product of OUR in your home Ethernet, such as IP Kamera 9000 network camera, IP Video 9100 network video server and IP Power 9202, to monitor the equipments or sensors installed in the doors or windows. This is an economic way to achieve the network monitor, detection and control.



## 9. FAQ

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

**A1:** Turn on the power normally, and then click the ipedit.exe program to enter the web page. Type in the username "**superuser**" then press OK to confirm and then press the reset button in 9200; it will be back to the default settings and enter the administration page.

**Q2:** I cannot open the IE web page, why?

**A2:** Please update your IE or use the up-to-date version of Netscape browser.

**Q3:** Why the on/off operation can work immediately?

**A3:** if you operate the IP Sensor 9201 in Ethernet, the operation will work immediately. If you operate it through the Internet, the response speed depends on the situation of the network. Normally the delay is not obvious because the data need to be transported during operating the IP Sensor 9201 is very little.

## 10. Control and setup by HTTP command

User can control IP Power 9212 through HTTP command , command format as follow:

**http://admin:password@xxx.xxx.xxx.xxx/SetIO?para1=\*+para2=\*+para3=\***

Command format part explanation :

username : default setting "admin"

password : default setting "12345678"

XXX.XXX.XXX.XXX : IP address of IP Power 9212

SetIO : output command

para1 - para3 parameter setting

**Example 1** : control I/O Output with username and password :

<http://admin:12345678@192.168.0.105/SetIO?p61=1+p62=1+p63=1+p64=1+p65=0+p66=0+p67=0+p68=0>

We use above command to control IP Power 9212 at 192.168.0.105 , username is admin , password is 12345678.

Turn on PORT1 ( p61 ) , PORT2 ( p62 ) , PORT3 ( p63 ) and PORT4 ( p64 ) .

Turn off PORT5 ( p65 ) , PORT6 ( p66 ) , PORT7 ( p67 ) and PORT8 ( p68 ) .

After send out above command , IP Power 9212 will get following message :

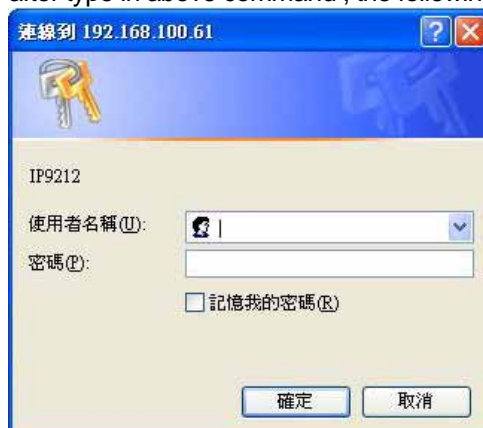
<html> P61=1,P62=1,P63=1,P64=1,P65=0,P66=0,P67=0,P68=0 </html>

Notice : pxx must be lower case , the command of SetIO must be same of the style

**Example 2** : no need to key in the username and password in command

<http://192.168.0.105/SetIO?p61=1+p62=1+p63=1+p64=1+p65=0+p66=0+p67=0+p68=0>

after type in above command , the following command jump:



after key in the username and password , 9212will return following message :

<html> P61=1,P62=1,P63=1,P64=1,P65=0,P66=0,P67=0,P68=0 </html>

**Example 3** : Read I/O Output of 9212 :

<http://192.168.100.61/GetP6?>

no need to key in the username and password in command ,

after key in the username and password , 9212will return following message :

<html> P61=1,P62=1,P63=1,P64=1,P65=0,P66=0,P67=0,P68=0 </html>

Output status as follow:

On: PORT1 ( p61 ) , PORT2 ( p62 ) , PORT3 ( p63 ) , PORT4 ( p64 ) .

Off : PORT5 p65 ) , PORT6 ( p66 ) , PORT7 ( p67 ) , PORT8 ( p68 ) .

**Sample 4** : Read 9212的I/O Input :

<http://192.168.100.61/GetP5?>

no need to key in the username and password in command ,  
after key in the username and password , 9212will return following message :

<html> P51=1,P52=1,P53=1,P54=1,P55=0,P56=0,P57=0,P58=0 </html>

Output status as follow:

\* With Input : PORT1 ( p51 ) , PORT2 ( p52 ) , PORT3 ( p53 ) , PORT4  
( p54 ) .

\* No Input : PORT5( p55 ) , PORT6( p56 ) , PORT7( p57 ) , PORT8( p58 ) .