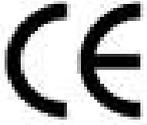




## Power Switch Office/Cabinet 4-Port







This product carries the CE mark to indicate compliance with the European Directive on Electromagnetic Compatibility (89/336/EEC). It has been tested to EN55024:1998 and EN55022:1998.

## POWER SWITCH

The Office/Cabinet Power Switch is an extension lead that enables you, through an Ethernet 10Base-T network, to switch on or off the power supply of any electric device.

The built-in mini Web server allows individual control of the four sockets, using a browser.

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# 1. Safety instructions

**To be read before use!**



- The Office/Cabinet Power Switch devices can only be installed by qualified people with the following installation and use instructions. The manufacturer disclaims all responsibility in case of a bad utilisation of the Office/Cabinet Power Switch devices and particularly any use with equipments that may cause personal injury or material damage.
- This equipment is designed to be installed on a dedicated circuit that must have a circuit breaker or fuse protection.
- The electrical power socket used to plug the power cord of the Office/Cabinet Power Switch device must be close to the Office/Cabinet Power Switch device and easily accessible.
- Check that the power cords, plugs and sockets are in good condition.
- The Office/Cabinet Power Switch devices can only be connected to three-wire 230 VAC (50-60Hz) sockets.
- Always plug the Office/Cabinet Power Switch devices into properly grounded power sockets (two poles plus ground).
- Never exceed 10 Amp total load.
- If you have to replace an external fuse of an Office/Cabinet Power Switch device, never use another type of fuse than 10A/250V T.

## POWER SWITCH

- The Office/Cabinet Power Switch devices are intended for indoor use only. Do NOT install them in an area where excessive moisture or heat is present.
- Always disconnect the power cord of the Office/Cabinet Power Switch device if you want to intervene on the Office/Cabinet Power Switch device or on the equipment powered from the Office/Cabinet Power Switch device.
- The power outlets of the Office/Cabinet Power Switch devices are not circuit breakers! If you want to intervene on equipment connected to an Office/Cabinet Power Switch device you must disconnect this equipment from the Office/Cabinet Power Switch device.
- The Office/Cabinet Power Switch devices contain potentially hazardous voltages. Do NOT attempt to disassemble them.
- The Office/Cabinet Power Switch devices contain no user serviceable parts and repairs are to be performed by factory trained service personnel only.

## 2. Connecting Power Switch

1. Connect the supplied configuration cable to an available serial port on your computer and to the serial port of the Office/Cabinet Power Switch.

Notes:

The serial cable provided with Office/Cabinet Power Switch is a standard straight cable with DB9 plug / socket.

You may use any other straight serial cable. For EMC reasons, we advise you not to use cables above 3 meters long.

2. Connect your 10BaseT cable (max. 100 meters) to the network port.
3. To connect Office/Cabinet Power Switch to the mains, plug the cable into a grounded socket. The Pwr LED flashes on to confirm that power is on. If not, try another socket.

## 3. Configuration

To use the Office/Cabinet Power Switch on your network you must first configure its network parameters. Ask your network administrator for the parameters to use.

There are three different methods to configure the Office/Cabinet Power Switch:

### **Method 1:**

Through a network using the Office/Cabinet Finder Program (on the delivered CD).

It is the simplest and fastest configuration method if you use Windows as operating system. We suggest that you use this program at least during the first configuration: it allows you to configure your Office/Cabinet Power Switch through your local network even if its network parameters (IP Address, Subnet mask and Port) are not compatible with those of your PC or your local network.

If you decide to use this method you can directly go to §3.1 "Configuration using the Finder program".

### **Method 2:**

Through a network using a Web browser (Internet Explorer > 6.0 and Netscape > 6.1).

This method can only be used if the network parameters of the Office/Cabinet Power Switch (IP Address, Subnet mask...) have already been configured using either the Finder program (Method 1) or using a Terminal program (Method 3).

For the first configuration you can also change the Network parameters of your PC according to the default settings of the Office/Cabinet Power Switch.

Default Network setting of the Office/Cabinet Power Switch:

IP Address: 192.168.100.100

Mask: 255.255.255.0

Port: 80

If you decide to use this method you can directly go to §3.2  
"Configuration using a Web browser".

### **Method 3:**

Through a RS232 serial connection using a Terminal connection (see §5 "Serial Port pin configuration" for the configuration of the serial interface connector).

If you use a PC, use the serial cable supplied with the product and a Terminal program such as HyperTerminal from Microsoft.

If you decide to use this method you can directly go to §3.3  
"Configuration using a Terminal connection".

## 3.1 Configuration using the Finder program

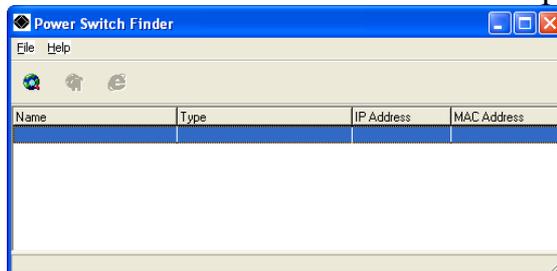
### Remarks:

The Power Switch and the PC used to configure it have to be connected on the same segment of the network. The protocol of this program can not be routed so it can not be used to configure the Power Switch through a WAN or the Internet.

This program does not work if the administrator has deactivated it in the configuration of the Power Switch (for security reasons for example).

1. Start the program *PS-Finder.exe* on the CD-ROM.

The Power Switch Finder window appears.

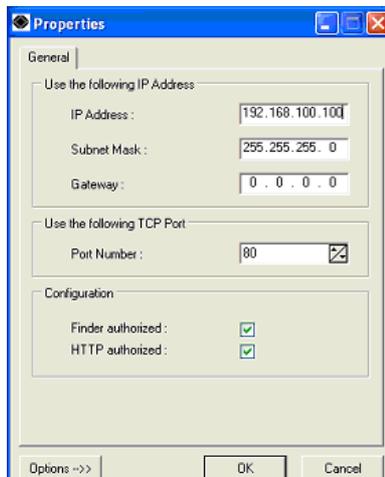


2. In the tool bar click on the *first left button* or choose the *File/Scan* Menu.

The program browses the segment on which is connected your PC and displays the name, the type, the IP and MAC Address of the connected Power Switch.

3. In the tool bar click on the *second left button* or choose the *File/Configure* Menu.

The properties dialog box appears and you can now configure all parameters. To configure all other parameters click on the *Options* button on the bottom of the dialog box.



**General Tab**

This tab is used to configure all the network parameters (IP address, Subnet Mask, Gateway and Port) and also to authorise or prevent the configuration of the Power Switch either using the Finder program or over HTTP.

**Labels Tab**

This tab is used to attribute a name to the device and its 4 controlled power outlets.

**Administrator Account Tab**

This tab is used to attribute a name and a password to the administrator.

**Users Accounts Tab**

This tab is used to attribute a name and a password to the users and to specify which outlet(s) each user has the right to control.

**Security Tab**

This tab is used to define addresses that are authorised or denied access to the Power Switch over the Network. For all details about these features, refer to chapter 4 "Security parameters configuration".

**Options Tab**

This tab is used to define individually the default status of each power outlet after power up and the delay for the restart function for each power outlet.

**Miscellaneous Tab**

This tab indicates the number of Power Ups and the number of switching cycles from OFF to ON for each power outlet.

## 3.2. Configuration using a Web browser

### Remarks:

In order to be able to access the Web server of the Power Switch, you must before have configured its network parameters (ask your network administrator).

The configuration using a Web browser does not work if the administrator has deactivated it in the configuration of the Power Switch (for security reasons for example).

The Web server of the Power Switch works with Internet Explorer Version 6.0 or higher and with Netscape Version 6.1 or higher.

1. Start your Web browser.
2. Type the IP address of your Power Switch.  
The browser displays the authentication dialog box.



3. Enter the administrator name (default value = admin) and the administrator password (default value = admin) and click on OK.  
The home page is displayed, allowing you to configure all the parameters of the Power Switch.

**Home Tab**

This tab is used to switch on, off and restart the controlled power outlets and to configure the Power Switch.

**General Tab**

This tab is used to:

- attribute a label to the Power Switch and its 4 controlled power outlets,
- define all IP parameters (IP Address, Subnet mask, Gateway and Port number),
- authorise or deny the use of the Power Switch Finder program,
- authorise or deny the configuration of the Power Switch through HTTP.

**Accounts Tab**

This tab is used to attribute a name and a password to the administrator and 4 users. It also enables you to define the power outlets each user can control.

**Security Tab**

This tab is used to set Network Security Masks. For all details about these features, please refer to chapter 4 "Security parameters configuration".

**Options Tab**

This tab is used to define individually the default status (On, Off or last state memorised) of each power outlet after power up and the delay for the restart function of each power outlet.

**Miscellaneous Tab**

This tab indicates the number of Power Up and the number of switching cycles from OFF to ON for each controlled power outlet.

The Button "*Exit*" enables you to quit without saving the configuration parameters.

### **3.3. Configuration using a Terminal Connection**

The RS232 serial port of the Power Switch can be used to control its power socket and to configure its Web server.

To configure the Web server:

1. Use the supplied RS232 serial cable to connect the Power Switch-1 to an available serial port of your PC.
2. Run a terminal program such as Windows HyperTerminal.
3. Configure the appropriate serial port with the following settings: 9.600 bauds, 8 bits, no parity, 1 stop bit and no flow control.
4. From your computer, press <ENTER> until the prompt «>» appears on your screen.  
(the Power Switch is now in Command mode and is waiting for commands to switch the power socket).

5. Press the <TAB> key on your keyboard. The Configuration menu appears on your screen and the Power Switch is now in Configuration mode. Follow the menu to configure the Web server of your Power Switch.

```
Cabinet/Office 4-Port
Version: 1.1.0.1
Commands :

Display

  /DS      Display the Sockets Status

Control

  /SS      Switch the Sockets

Configuration

  /NP      Network Parameters Settings
  /PS      Passwords Settings
  /NS      Device and Socket Names Settings
  /SP      Socket Parameters Settings
  /IS      IP Security Settings
  /RS      Restart the Device
  /FS      Factory Settings
  /RC      Reset Counters

Enter Selection

>
```

All commands start with the slash «/»  
(ex.: type the command **/NP** to go to the **Network Parameters** setting menu.

To display the current menu again, press <ENTER>.

To go to the previous menu and to display it, press <ESC>.

### Remark:

To leave the configuration mode, type the restart command **/RS**. This is particularly important if you want to control the power outlet later through the serial connection.

## 4. Security parameters

Explanations about the masks settings:

- Each mask can be an IP address or a range of IP addresses.
- Each mask allows you to authorise or deny access to the Web server of the Power Switch to specific addresses or to specific ranges of addresses.
- Each mask can be activated or deactivated (without function in this case).
- Each IP address consists of a series of four eight-bit numbers. The number 255 is used as a wildcard, so it replaces all others.
- Masks are listed in order of descending priority; so Mask 1 has the highest priority.
- Masks have a cumulative effect; high priority masks supersede the effect of lower priority masks.

### Example 1:

Deny the access to all IP addresses except 192.168.001.015

Mask	IP Address	Permit	Deny	Activated
#1	192.168.001.015	✓		✓
#2	255.255.255.255		✓	✓

**Example 2:**

Permit access only to IP addresses beginning with 192.

Mask	IP Address	Permit	Deny	Activated
#1	192.255.255.255	✓		✓
#2	255.255.255.255		✓	✓

**Example 3:**

Permit access only to IP addresses beginning with 192

Deny access to IP address 192.168.001.010

Mask	IP Address	Permit	Deny	Activated
#1	192.168.001.010		✓	✓
#2	192.255.255.255	✓		✓
#3	255.255.255.255		✓	✓

**Example 4:**

Permit access to IP addresses beginning with 192

Deny access to address 192.168.001.010

Permit access to IP addresses beginning with 217.128.103

Mask	IP Address	Permit	Deny	Activated
#1	192.168.001.010		✓	✓
#2	192.255.255.255	✓		✓
#4	217.128.103.255	✓		✓
#3	255.255.255.255		✓	✓

## 5. Serial port pin configuration

The serial connection uses a SUB-D9 connector with the following configuration:

Pin 2 = TxD (transmit data to the PC)

Pin 3 = RxD (receive commands)

Pin 5 = GND

Parameters: 9600, n, 8, 1 without flow control.

## 6. Control the power outlets

### 6.1 Control the powers outlet using a Web browser

1. Start your Web browser  
Type the IP address of your Power Switch.  
The browser displays the authentication dialog box.
2. Enter a user name and its corresponding password.
  - If you enter the administrator name (default value = admin) and the administrator password (default value = admin) and click OK, you will be able to control all the power outlets and also to configure all the parameters of the Power Switch.
  - If you enter a valid user name (default value = user1, user2, user3, user4) and the corresponding user password (default value = user1, user2, user3, user4) and click OK, you will only be able to control the power outlet(s) for which you have the rights.

The Power button allows you to switch the corresponding power outlet ON and OFF.

The Restart button allows you to switch OFF the corresponding power outlet. It will then be automatically switched ON after the delay defined by the administrator during the configuration (default value is 5 sec).

### 6.2 Control the power outlets using a serial connection

All the power outlets of the power outlet can also be controlled using a simple ASCII protocol over a RS232 serial connection.

To control the power socket:

1. Use the supplied RS232 serial cable to connect the Power Switch to an available serial port of your PC.
2. Run a terminal program such as Windows HyperTerminal.
3. Configure the appropriate serial port with the following settings:  
9.600 baud, 8 bits, no parity, 1 stop bit and no flow control.
4. On your computer, press <ENTER> until the prompt «>» appears on your screen.  
The Power Switch is now in the command mode and is waiting for commands to switch the power socket.

#### Remark:

The power outlets can only be controlled if the Power Switch is in the Command mode and NOT in the Configuration mode. If you are in the Configuration mode type the **/RS** command to leave this mode. By default, the Power Switch is in Command mode after a power up.

**Use the following command: Px=y**

Where x = power outlet number (0 to 4)

0 = all power outlets together  
1 = power outlet 1  
2 = power outlet 2  
3 = power outlet 3  
4 = power outlet 4

Where y = command

0 = switch corresponding power outlet(s) to Off  
1 = switch corresponding power outlet(s) to On  
r = restart corresponding power outlet(s)  
t = toggle corresponding power outlet(s)

**Examples:**

Switch power outlet 1 ON: p1=1  
Switch power outlet 2 OFF: p2=0  
Restart power outlet 1: p1=r  
Restart power outlet 4: p4=r  
  
Toggle power outlet 3: p3=t  
  
Switch all power outlets ON: p0=1  
Restart all power outlets: p0=r

The Power Switch accepts lower case and upper case commands.

The version of the firmware can be displayed by typing "?" followed by <ENTER>.

## 7. Technical Data

<b>Network standards</b>	IEEE 802.3, 10BASE-T
<b>Network protocols</b>	TCP/IP, HTTP
<b>Network connection</b>	RJ-45 connector for UTP CAT5
<b>Max. network cable length</b>	100 meters (cable not included)
<b>Serial connection</b>	RS232, SUB-D 9 female
<b>Nominal input voltage</b>	230 V/50Hz
<b>Input power socket</b>	IEC-320
<b>Output voltage</b>	230 V/50Hz
<b>Output power socket</b>	Country specific (CH, FR, DE, EN)
<b>Maximum total current</b>	10 A
<b>Fuse</b>	10 A(T)
<b>LED's</b>	1 for Power and Network Traffic 4 for the socket status
<b>Operating temperature</b>	0°C to +40°C
<b>Operating humidity</b>	10% to 80%
<b>Dimensions</b>	18.8 x 2.9 x 19.3 inches
<b>Weight</b>	1 Kg



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