



To be read before use!

- Always plug ePowerSwitch into a properly grounded power socket.
- The electrical outlet used to plug the cord of the ePowerSwitch must be close to the ePowerSwitch and easily accessible.
- Never exceed 10 Amp as the maximum current dispatched to all connected electric devices.
- ePowerSwitch can be connected only to 230 V mains.
- In you have to replace the fuse, never use another type of fuse but 10A/250V T.

I/ Installation

The **ePowerSwitch-M8 (Master)** is equipped with an Ethernet interface and a Web server. This model can be used in an autonomous way to control 8 IEC 320sockets. The number of controlled sockets via only one IP address can be extended to 16, 24, 32 or 40 by connection in series of 1 to 4 ePowerSwitch-S8 (Slave).

The **ePowerSwitch-S8 (Slave)** do not have Web server and are controlled from the ePowerSwitch-M8 to which they are connected in series via an serial interface. The ePowerSwitch-S8 can also be controlled via a RS232serial connection. In this case it is also possible to connect in series 4 units in order to control up to 32 sockets via only one RS232 port (cf appendix).

Connecting ePowerSwitch-M8 (Master)

- Connect the supplied configuration cable to an available serial port on your computer and to the serial port of the ePowerSwitch-M8.

Notes: The serial cable provided with ePowerSwitch-8 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 2,9 meters long.
- Connect your 10BaseT cable to the RJ-45 network port and to the ePowerSwitch-M8.
- To connect ePowerSwitch to the mains, plug the cable into a **grounded** socket. The Pwr LED lights on to confirm that power is on. If not, try another socket.
- You can now configure the ePowerSwitch-M8 by following the indications of the paragraph "Configuration" (page 12) or, if necessary, install the ePowerSwitch-S8 as indicated hereafter.

Connecting ePowerSwitch-S8 (Slave)

- Connect the supplied RJ9 link-up cable to the ePowerSwitch-M8 (Master) OUT marked port and to the IN marked port of the first ePowerSwitch-S8 (Slave). To connect in series several ePowerSwitch-S8, always connect the ePowerSwitch-S8 OUT port to the IN port of the next ePowerSwitch-S8.

- Allocate an address to each ePowerSwitch-S8 by positioning the address selection micro-switches marked Slct (front panel) according to indications of the following table.

Important remark:

- **ePowerSwitch-S8 should not be powered during the configuration.**
- **two ePowerSwitch-S8 should not use the same address.**

Micro-switch 1	Micro-switch 2	ePS Slave number
Off	Off	1
On	Off	2
Off	On	3
On	On	4

Position Off = switch upwards

Position On = switch downwards

Micro-switch 1 is on the left side, micro-switch2 on the right.

- To connect ePowerSwitch-S8 to the mains, plug the supplied power cord into a **grounded** socket. The "Slave" LED indicators on the ePowerSwitch-M8 front panel indicate the powered ePowerSwitch-S8. If not, check the micro-switches position.

Connecting electrical devices

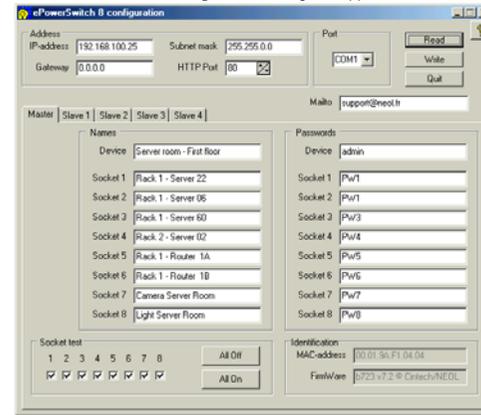
To connect your electrical devices to the ePowerSwitch-8, use power cord with male/female IEC plug.

II/ Configuration

You must configure the network settings of ePowerSwitch Master before it can operate on a network.

- Start **ePowerSwitch 8.exe** from the CD-ROM.

The **ePowerSwitch 8 configuration** dialog box appears.



- Select the COM port you are using to connect ePowerSwitch Master.
- Click on **READ**. The current configuration parameters appear in the respective areas. If not, check that your serial connection is OK (serial port selection, cable connection).
- Into the **IP-address** area, type an IP address for ePowerSwitch in order to connect it to **your network** (this address must be compatible with the IP addressing system of your network). Into the **HTTP Port** area, you can modify the port-address. The standard HTTP-port is 80. Don't use the same address as an other application. Into the **Subnet mask** area, type the number of the subnet mask used on your network and if necessary type in the **Gateway** area the IP address of the default Gateway (address of a local IP router). All the other text areas can be freely configured. During first installation, do not modify these areas (you can do it later as explained below) and go directly to point 5.

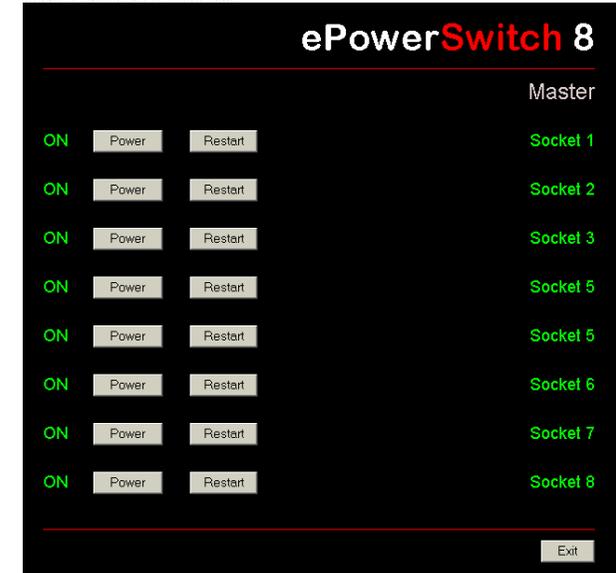
- In the **Names** area, you can give a name to the ePowerSwitch Master or Slave and to each of its 8 mains sockets. The default names are: Master, Socket 1, Socket 2, Socket 3,... Socket 8, Slave1, Socket 9, Socket 10, Socket 11,... Socket 16, Slave2, Socket 17, Socket 18, Socket 19,... Socket 24, Slave3, Socket 25, Socket 26, Socket 27,... Socket 32, Slave4, Socket 33, Socket 34 Socket 35,... Socket 40. These names are displayed by your browser and avoid confusion when you control the different sockets.

- In the **Passwords** area, you can choose an "administrator" password as well as a "user" password for each socket of ePowerSwitch. The "administrator" password enables you to control the 8 sockets of ePowerSwitch. Each "user" password gives access only to the corresponding socket.

- Click on **WRITE** to save the configuration into ePowerSwitch.
- Close the configuration software.

III/ Operation

- Start your Internet browser (Internet Explorer or Netscape).
- Write the IP address of your ePowerSwitch 8 Master. The browser displays the start page asking you to enter a password. If this page does not appear, check that your network connection is correct and that you have correctly entered the IP address corresponding to your ePowerSwitch.
- Enter one of the 9 passwords of your ePowerSwitch. In order to control the 4 sockets, enter the "administrator" password. If you have not modified the default configuration, type **admin** (lower case). To control individually each socket, type the corresponding password. If you have not modified the default configuration, type **PW1** (upper case) to control socket #1, **PW2** for socket #2, **PW3** for socket #3,... **PW8** for socket #8.
- Just click to control all sockets:



- Click on **Power** to switch them on and off,
- Click on **Restart** to shut off the corresponding socket and switch it on automatically after one minute. The state of each socket is displayed on the left of the buttons: **ON** means that the socket is switched on **OFF** means that the socket is switched off.

Safety measures...

- The ePowerSwitch web server automatically disconnects any user after 2 minutes without activity and displays the start page again requesting a password.
- The web server does not accept simultaneous access by two users. The second user will be denied access and the **Access denied** page will be displayed for 5 seconds.

After a power outage...

ePowerSwitch restores the socket configuration as saved in the web server. The sockets are switched on in a sequence with 250 ms offset in order to reduce high voltage peaks.



ePowerSwitch 8 Master/Slave

ePowerSwitch-8 was designed to remotely switch on, off and reboot the power supply of electric device through an Ethernet 10Base-T network.

Equipped with a Web server, ePowerSwitch-M8 Master is used to control its 8 socket-outlets as those of one to four ePowerSwitch-S8 (Slave), from a Web navigator. Up to 40 electric device can be controlled through only one IP address. You have thus a modular, economic and compact system.

ePowerSwitch-S8 Slave is also an economical way of controlling up to 32 power outlets via an ASCII protocol through the RS232 serial connection.

User's Guide

04/2003
quick start guide E ePS 8.doc
02/04/2003

Technical Features

Standard	IEEE 802.3, 10BASE-T
Protocols	TCP/IP, HTTP
Network connections	RJ-45 connector for UTP Cat 5 cable
Sockets	IEC 320
Max. network cable length	100 meters (not included)
LED indicators:	
ePowerSwitch-M8	1 LED for power/network traffic 8 LED for power supply of the sockets 4 LEDs for power supply of the Slaves
ePowerSwitch-S8	8 LEDs for power supply of the sockets
Dimensions	19" rackable case; 1 U height 485 X 150 X 45 mm
Weight	2,4 Kg (Master) 2,2 Kg (Slave)
Operating temperature	0°C to +50°C
Operating humidity	10% to 80% non-condensing
Fuse	10 A T
Voltage	230 VAC/50Hz
Guarantee	2 years
Electromagnetic Compatibility	EN55022 & EN55024

STATEMENT OF CONFORMITY

Application of Council Directives:	89/336/EEC, 92/31/EEC, 73/23/EEC, 93/68/EEC, 1999/5/EC
Standards to Which Conformity declared:	EN 60950, EN 55022, EN 55024
Manufacturer's Name and Address:	NEOL SA 4 Rue Nationale 67800 BISCHHEIM - FRANCE
Type of Equipment:	Controlled Power Distribution Unit
Type Designation:	ePowerSwitch 8
References:	EPS M8 (the Master unit), EPS S8 (the Slave unit), 2002
Year of Manufacture:	2002

We, the undersigned, hereby declare that the equipment specified above conforms to the above directives.

Bischheim, 2nd December 2002

Paul REYSER,
General Manager

NEOL SA

Appendix

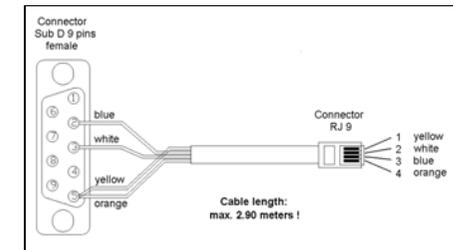
Serial connection protocol

The serial port of the ePowerSwitch-S8 enables to switch on or off the sockets and to get their status.

1. Use a RJ9/SubD9 serial cable (Neol part number 21-00214) to connect the ePowerSwitch-S8 to an available serial port on your computer.
2. Run a terminal program such as Windows HyperTerminal.
3. Configure the appropriate serial port with the following settings:
9.600 bps, no parity, 8 data bits, 1 stop bit, and no flow control.
4. From your computer, type the commands as specified below.

Serial Port Settings

Pin 2 = TxD (transmit data to PC)	9.600 bps
Pin 3 = RxD (receive commands)	no parity
Pin 5 = GND	8 data bits
	1 stop bit
	no flow control



Get the state of the sockets

Send to ePowerSwitch-S8: Rxy[CR]
=> ePowerSwitch-S8 responds: Pxy=z[CR]

x = ePowerSwitch address (1,2,3,4)
y = Socket Number (1,2,3,4,5,6,7,8)
z = State: 1 ⇔ on
 0 ⇔ off

[CR] = Carriage Return = 0D hexadecimal = 13 decimal

Example: Get the status of socket 8 / ePowerSwitch 2: R28[CR]

Command the state of the sockets

Send to ePowerSwitch-S8: Pxy=z[CR]
=> ePowerSwitch-S8 responds: Pxy=z[CR]

x = Device address (1,2,3,4)
y = Socket Number (1,2,3,4,5,6,7,8) or 0 for all sockets
z = Command : 1 ⇔ on
 0 ⇔ off
 t ⇔ toggle
 r ⇔ restart

[CR] = Carriage Return = 0D hexadecimal = 13 decimal

Example: Switch "ON" the socket 6 of ePowerSwitch 3: P36=1[CR]