

## 2 Port Remote Power Control IP PDU (Power Distribution Unit)

PDU02IP -Rev 3



\*actual product may vary from photos

DE: Bedienungsanleitung - [de.startech.com](http://de.startech.com)

FR: Guide de l'utilisateur - [fr.startech.com](http://fr.startech.com)

ES: Guía del usuario - [es.startech.com](http://es.startech.com)

IT: Guida per l'uso - [it.startech.com](http://it.startech.com)

NL: Gebruiksaanwijzing - [nl.startech.com](http://nl.startech.com)

PT: Guia do usuário - [pt.startech.com](http://pt.startech.com)

For the latest information, technical specifications, and support for this product, please visit [www.startech.com/PDU02IP](http://www.startech.com/PDU02IP).

## FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## Industry Canada Statement

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (A)/NMB-3(A)

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# Product Diagram

## Rear View



## Front View



# Introduction

## Packaging Contents

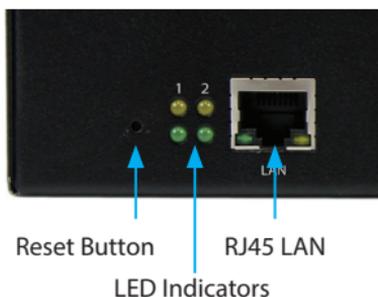
- 1 x 2 Port PDU
- 1 x Power Cable
- 1 x Instruction Manual (CD)

## LED Indicators

<b>Port Indicators (Top Row)</b>	LED #1 is illuminated when output receptacle #1 is ON. LED #2 is illuminated when output receptacle #2 is ON.
<b>Reset Indicator (Bottom Left)</b>	Reset LED will flash when the Reset function is being performed.
<b>Power Indicator (Bottom Right)</b>	Utility Power LED is illuminated when there is an acceptable AC voltage Present.

## Reset Button

If you need to reset the PDU back to factory defaults, the Reset Button is located next to the LED panel. Insert a paperclip to gently press and hold the Reset Button for at least 3 seconds, then release.



The IP address will be reset back to **192.168.1.10**.

The user name and password will be reset back to **admin**.

All other settings will be unchanged.

# Installation

## Hardware Installation

1. Connect the power cord to the power inlet and to a wall outlet.
2. Plug your equipment into the two output receptacles.
3. Connect an Ethernet cable from the PDU to your network.
4. Turn the power switch to the **ON** position.

## Logging In for the First Time

The minimum requirement to operate the PDU is to set up the IP Address, subnet mask, and default gateway, which can be done through your web browser or using the IP Search Utility application on the CD.

### Default Settings

IP address: **192.168.1.10**

Subnet mask: **255.255.255.0**

Default Gateway: **192.168.1.1**

User name / Password: **admin / admin** (lower case)

### Web Browser Method

**NOTE:** The workstation and the PDU must be on the same LAN.

1. Open a web browser and input the default IP address (**192.168.1.10**).
2. In the **Account** field, enter **admin**.
3. In the **Password** field, enter **admin**.
4. Click **Confirm**.



The screenshot shows a web browser window with a 'Sign in' form. The form has a blue header with the text 'Sign in'. Below the header, there are two input fields. The first is labeled 'Account:' and contains the text 'admin'. The second is labeled 'Password:' and contains six dots. At the bottom right of the form is a blue button labeled 'Confirm'.

5. To set the IP address and network info for this device, on the web interface, click on the **System** tab and then click **Network**.

The screenshot shows a web interface for network configuration. At the top, there is a navigation bar with tabs: Network, Email Server, SMS Server, SNMP, Syslog, IDCVIEW, Peripheral, and Other. The 'Network' tab is selected. Below the navigation bar, there are several sections:

- Host Settings** (with a sub-tab 'Ping Test'):
  - Enabled DHCP:
  - Host:
  - Subnet Mask:
  - Gateway:
  - MAC: 00:1F:36:00:02:11
- Domain Name Server**:
  - Primary DNS Server:
  - Secondary DNS Server:
- Web Server**:
  - Enabled HTTP:
  - Enabled HTTPS:
  - Http Port:
  - Https Port:
- Ethernet Card**:
  - Disabled ICMP Response:

A 'Save' button is located at the bottom right of the interface.

## IP Search Utility

**Note:** The workstation and the PDU must be on the same LAN for the IP Search Utility to detect it, and the Windows Firewall must also be turned off.

1. Open the Windows Control Panel.
2. Select **Windows Firewall**.
3. Select **Off** and then click the **OK** button.
4. Insert the provided CD in the CD-ROM drive.
5. Launch the **IP Search Utility** program.
6. Click on the **Refresh** button to search for all PDU02IP units on the LAN.
7. Click on the detected PDU and configure the IP address, Gateway and Net Mask, then click the **Configure** button twice. You will see the values you specified populate in the main window.
8. Repeat step 7 for each device if you have multiple PDU02IP units connected.
9. Once all devices are configured, close the **IP Search Utility** program and turn the Windows Firewall back on.

# Web Console Operation

## Power Switch Operation

The global outlet controls can be used to either turn on all outlets or turn off all outlets, while each individual outlet allows for On / Off / Reboot controls.



- Double-clicking the **ALL ON** button will turn on both outlets. Double-clicking the **ALL OFF** button will turn off all of the outlets.
- Double-clicking the switch for Port 1 or Port 2 will flip the switch to the opposite state (ON/OFF) for that individual outlet.
- If you want to Reboot (cycle off, then back on) an individual outlet, select the **Reboot** check box and then double-click the switch.



# Monitor Tab

The Monitor tab shows you the current status of each outlet and allows you to modify the power state of each outlet individually, or make global changes to both. From the Monitor tab, you can also schedule events and configure the Auto-Ping feature.



## Configuration Tab

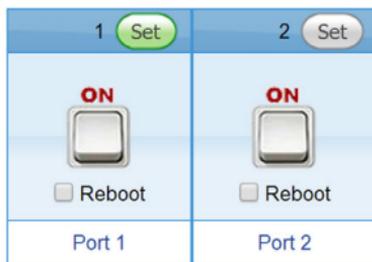
Click on the **Set** button located on the top corner of each outlet to modify an individual outlet. When the **Set** button is orange, the outlet is ready to be configured.

**Description:** Allows you to give each outlet a more meaningful name if desired

**Start Delay Time:** Each outlet can be programmed to startup at different time intervals instead of both of them starting up at the same time.

**Shutdown Delay Time:** Each outlet can be programmed to shutdown at different time intervals instead of shutting both of them down at the same time.

**Save:** Saves all changes.



## Schedule Tab

Configure scheduled actions for each outlet. Click on the **Set** button located on the top corner of each outlet to modify an individual outlet. When the **Set** button is orange, the outlet is ready to be configured.

Power	Safety Shutdown	Schedule	Auto-Ping	Peripheral	Copy
Period	Time	Action	Delete		
Weekly Holidays	January 01 00:00	ON	X		
Monthly	18 16:14	REBOOT	X		
Weekly	Monday 16:14	OFF	X		

Period: Weekly | Monday | 16 | 14 | OFF | Add

**Period:** An Action can be scheduled to occur yearly, monthly, weekly or daily at a specific time for each individual outlet.

**Time:** Set the time (hours and minutes) when you want the action to occur.

**Action:** Set the action you want the outlet to perform, ON, OFF or Reboot.

**ADD:** Click the **ADD** button to add this action.

**Delete:** To delete a scheduled action, double-click X.

**Save:** Saves all changes.

## Network Tab

Configure the Auto-PING feature to ping an IP-addressable device and detect when that device has stopped communicating. Click on the **Set** button located on the top corner of each outlet to modify an individual outlet. When the **Set** button is orange, the outlet is ready to be configured.

Power	Safety Shutdown	Schedule	Auto-Ping	Peripheral	Copy	
Ping	Host	Ping Interval Time(Min.)	Ping	Ping Times	Reboot	Re-Ping Time(Min.)
<input checked="" type="checkbox"/>	192.168.2.10	5	<input type="checkbox"/>	3	<input checked="" type="checkbox"/>	3

**Ping:** Select this box to enable the Auto-Ping function.

**Host:** Enter the IP address of the connected equipment.

**PING Interval Time:** Set the time Interval to PING the connected device.

**Ping Times:** If a device fails to respond to a ping continuously and exceeds the specified amount of attempts, the PDU02IP can notify selected personnel via email or SMS.

**Reboot:** Select this box to reboot the outlet for the failed connected device.

**Re-Ping Time:** The time interval before restarting the Auto-Ping function after the connected device has been rebooted.

**Save:** Saves all changes.

# System Section

The screenshot shows the StarTech.com web interface. At the top left is the StarTech.com logo. To its right, it displays 'ZDL-2B' and 'User: admin Login Time: 03/11 11:21 Will be logout after 28:19'. There are 'Reset' and 'Logout' buttons. Below this is a navigation bar with buttons for 'MONITOR', 'SYSTEM' (which is highlighted), 'FIREWALL', 'ACCOUNT', 'TIME', 'CHART', 'EVENT', and 'UPGRADE'. At the bottom of this bar is another row of tabs: 'Network', 'Email Server', 'SMS Server', 'SNMP', 'Syslog', 'IDCView', 'Peripheral', and 'Other'.

## Network Tab

The screenshot shows the 'Network' configuration page. It has a header with tabs: 'Network', 'Email Server', 'SMS Server', 'SNMP', 'Syslog', 'IDCView', 'Peripheral', and 'Other'. The 'Network' tab is selected. The page is divided into several sections, each with a blue header and a white content area:

- Host Settings:** Includes a 'Ping Test' button, an 'Enabled DHCP' checkbox, and input fields for Host (192.168.1.124), Subnet Mask (255.255.255.0), Gateway (192.168.1.1), and MAC (00:1F:30:00:02:11).
- Domain Name Server:** Includes input fields for Primary DNS Server (168.95.1.1) and Secondary DNS Server.
- Web Server:** Includes 'Enabled HTTP' and 'Enabled HTTPS' checkboxes, and input fields for Http Port (80) and Https Port (443).
- Ethernet Card:** Includes a 'Disabled ICMP Response' checkbox.

A 'Save' button is located at the bottom right of the form.

**Enabled DHCP:** Enable this to assign the device IP by DHCP server.

**IP Address:** Set the address IP of the network connecting to this device.

**Subnet Mask:** Set the network mask of this device.

**IP Gateway:** Set the device's external gateway address.

**MAC:** Display the device's MAC value.

**Primary DNS Server:** Configure the IP and DNS server addresses for Network Adapter 1.

**Secondary DNS Server:** Configure the IP and DNS server addresses for Network Adapter 2.

**Http Open:** Enable this to allow the browser using Http protocol to connect to the device.

**Https Open:** Enable this to allow the browser using Http SSL protocol to connect to the device.

**Http Port:** Provide the specified Http port that the browser uses to connect to the device.

**Https Port:** Provide the specified Http SSL port that the browser uses to connect to the device.

**Adapter speed:** Set the network speed of the device.

**Disable ICMP Response:** When selected, the examination won't respond.

**Ping Test:** Use to test if the network is normal.

## Email Server Tab

Configure the Mail Server settings to send notifications when an event has occurred.

Network **Email Server** SMS Server SNMP Syslog IDCView Peripheral Other

Email Server Settings **Email Test**

Host:

Port:

SMTP TLS secure connection:

'From' Address:

Subject:

Authorization:

Username:

Password:

Save

**Host:** Enter the Hostname or IP address of the SMTP Mail Server that will be used to send emails from the PDU. If entering a Hostname, you will also be required to enter the DNS Address on the Network tab.

**Port:** Enter the port number for the SMTP server. The default port is 25.

**'From' Address:** This must be a legitimate email address.

**Subject:** Enter a subject line to easily identify the device.

**Authorization:** Select this box if the Mail Server requires authentication to send emails.

**Username:** Enter the account name if SMTP authentication is required.

**Password:** Enter the password if SMTP authentication is required.

**Save:** Saves all changes.

## SMS Server Tab

Configure the SMS Server settings to send text notifications when an event has occurred.

Network Email Server **SMS Server** SNMP Syslog IDCView Peripheral Other

SMS Server **SMS Test**

Host:

Transmission Mode:

Device Name:

Account:

Password:

Message Format:

**Host:** Enter the SMS server address.

**Transmission Mode:** Select the transmission mode.

**Device Name:** Enter a name/subject to identify the device.

**Account:** Enter the account name if required.

**Password:** Enter the password if required.

**Message Format:** Click the icon to the right of the format text box to see a preview of the message format.

**Save:** Saves all changes.

## SNMP/SysLog Tab

Configure SNMP Traps and System Logs to be sent to different Network Management Stations (NMS).

Network | Email Server | SMS Server | **SNMP** | Syslog | IDCView | Peripheral | Other

**SNMP v1v2c Agent**

SNMP v1v2c Enable:

SNMP Port:

Read Community:

SNMP Writing:

Write Community:

**SNMP Device Info**

sysName:

sysContact:

sysLocation:

**Snmp Trap** | **SNMP Trap Test**

Host	Port	Authentication String	Delete
Host : <input type="text"/>	Port : <input type="text" value="162"/>	Authentication String : <input type="text"/>	<input type="button" value="Add"/>

**SysName:** Enter the name of the SNMP device.

**SysContact:** Enter the name of the System Administrator.

**SysLocation:** Enter the location of the SNMP device.

**Host:** The IP Address of the NMS of where the Traps should be sent.

**Port:** The port that will be used to receive the Traps. The default value is 162.

**Write Community:** Low-level password of the associated IP address with the access type set by the administrator.

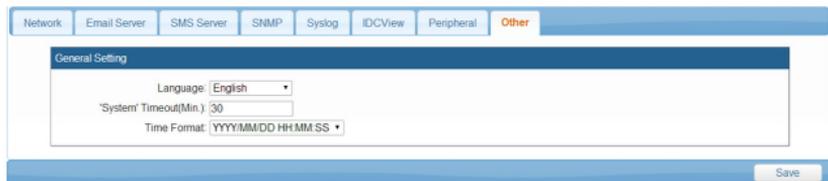
**Enabled:** Enables the SNMP Traps to be sent.

**SNMP Test:** This is used to verify that the Trap notification works properly.

**Save:** Saves all changes.

## Other Tab

Set the outlets on the main tab to default to a reboot action, instead of ON/OFF.



**Language:** Select a language.

**System Timeout:** Set the amount of time before the device will automatically log out when no process is underway.

**Time Format:** Select a time format.

**Save:** Saves all changes.

## Firewall Section



This menu allows the administrator to configure user privileges and prevent unauthorized access to the device.

### IP Filter Tab

Configure the range of IP addresses that are able to access the PDU.



**Enable IP Filter:** Select this box to enable the IP address filter.

**Allowed IP Section:** The first four sections are the beginning of the IP range. The last section is the ending of the IP range that is being given access to the device.

For example, to authorize the IP range from 192.168.1.110 - 192.168.1.120, input as shown in the image above

**ADD:** Click **ADD** to place the entered address range in the table.

**Delete:** To delete a specific IP address range, click **X**.

**Save:** Saves all changes.

## MAC Filter Tab

Configure a specific list of MAC addresses that are able to access the PDU.

The screenshot shows a web interface for configuring a MAC Filter. At the top, there are two tabs: "IP Filter" and "MAC Filter", with "MAC Filter" being the active tab. Below the tabs is a header "MAC Filter". Underneath is a section "Enable MAC Filter" with a checkbox. Below that is a table with one row for "Allowed MACAddress" and a "Delete" button. At the bottom, there are six input fields for MAC address octets: "40", "81", "86", "c4", "9f", and "5e", followed by an "Add" button. A "Save" button is located at the bottom right of the interface.

**Enable MAC Filter:** Select this box to enable the MAC address filter.

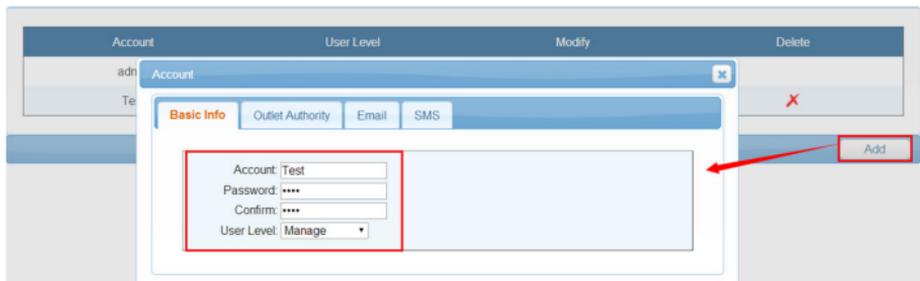
**Allowed MAC Address:** Enter the MAC address of the user(s) that you want to have access to the PDU. The default MAC address is the MAC address of the computer that you initially used to setup the device.

**ADD:** Click **ADD** to place the entered address in the table.

**Delete:** To delete a specific MAC address, click **X**.

**Save:** Saves all changes.

## Account Section



This menu allows the administrator to setup authorized user accounts and other privileges. The administrator can assign specific access levels for each user account. Example: The administrator can assign user "A" to have access to outlet number 1 and receive email notifications when an event occurs to that specific outlet. Smart Power 2S allows administrator to set up 2 accounts for management.

**Account:** Enter the user id for each user account.

**Password:** Enter the password for each user account.

**Cell phone:** Enter the contact phone number of the user that will receive the SMS text message once an event has occurred.

**Mail Address:** Enter the contact email address of the user that will receive the email notification once an event has occurred.

**1 | 2:** Mark the outlet(s) that the account can control.

**Del (Column):** Check account(s) to be deleted.

**Delete (Button):** Delete checked account(s).

**Save:** Saves all changes.

# TimeSync Section

The screenshot shows the StarTech.com web interface for configuring the TimeSync section of a device (ZDL-2B). The user is logged in as 'admin' and will be logged out after 59:42. The 'TIME' tab is selected in the navigation menu.

**Device Time**

Date (YYYY/MM/DD): 2014/07/09  
Time (HH:MM:SS): 15:57:24

**Time Synchronization**

Sync with computer ▾  
Date (YYYY/MM/DD): 2014/07/09  
Time (HH:MM:SS): 15:57:28 Time Synchronization

**Time Server Setting**

Synchronize with Time Server  
Time Server: Time Server List

**Time Zone**

Time Zone: GMT ▾ 08 ▾ :00 ▾

Save

This menu allows the administrator to set the date and time for the PDU.

**Device Time:** Displays the date and time of the device. You can't edit this field.

**Sync with computer:** Select either Sync with computer or Manual setting.

**Sync with Time Server:** Check the Sync with NTP Server button to synchronize the date and time of the PDU with an NTP server.

**Time Server:** You can build a new NTP server and then sync it to have the same date and time. You can also click **Time Server List** and select from the drop-down list.

# Event Section

StarTech.com<sup>®</sup> ZDL-2B User: admin Login Time: 03/11 13:49 Will be logout after 29:56 [Reset](#) [Logout](#)

[MONITOR](#) [SYSTEM](#) [FIREWALL](#) [ACCOUNT](#) [TIME](#) [CHART](#) **EVENT** [UPGRADE](#)

### Event Record

	Time	Type	Message
1	2015/03/11 13:49:18	 User[admin] 192.168.1.205 login	
2	2015/03/11 13:38:09	 User[admin] 192.168.1.212 login	
3	2015/03/11 12:00:09	 User[admin] 192.168.1.212 login	
4	2015/03/11 11:51:52	 User[admin] 192.168.1.100 login	
5	2015/03/11 11:48:15	 User[admin] 192.168.1.212 login	
6	2015/03/11 11:45:51	 Reboot software	
7	2015/03/11 11:45:01	 User[admin] 192.168.1.100 login	
8	2015/03/11 11:23:08	 User[admin] 192.168.1.212 login	
9	2015/03/11 11:21:59	 User[admin] 192.168.1.205 login	
10	2015/03/11 11:21:28	 Reboot software	
11	2015/03/11 11:20:26	 User[admin] 192.168.1.205 login	
12	2015/03/11 10:17:16	 User[admin] 192.168.1.205 login	
13	2015/03/11 10:16:47	 Reboot software	

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This menu displays the events that have occurred with the PDU.

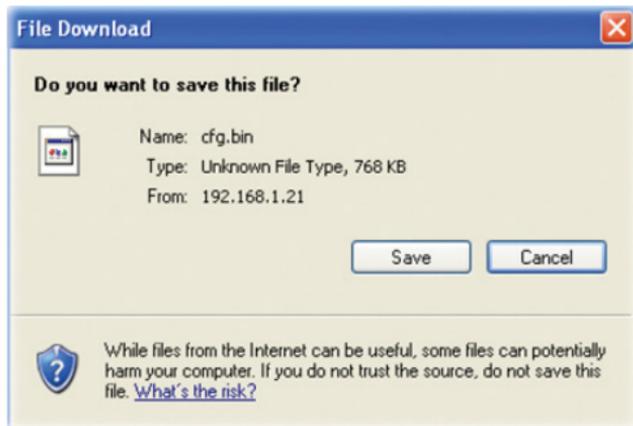
**Refresh:** Check for new events.

**Download:** Save the event log information (.csv format).

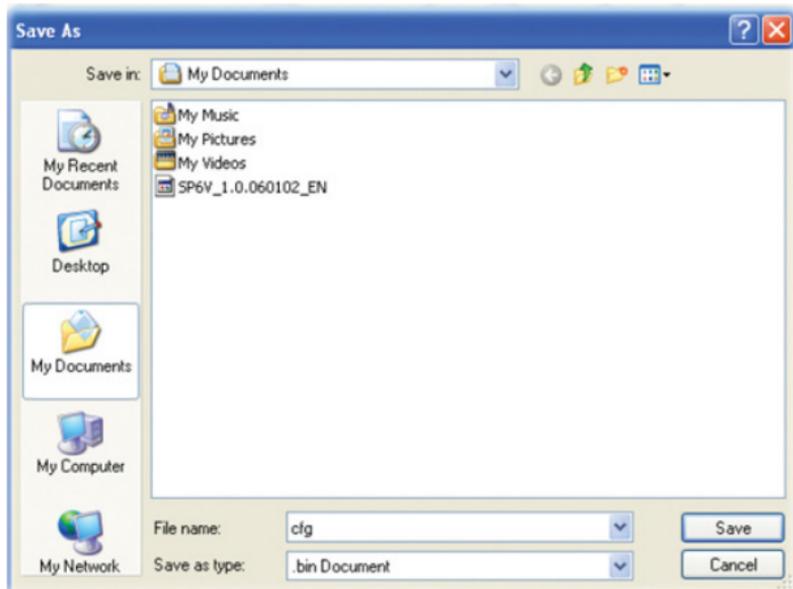
**Delete:** Clear the event log.

## To Download / save the configuration file

1. Click the **Download** button, then click **Save**.

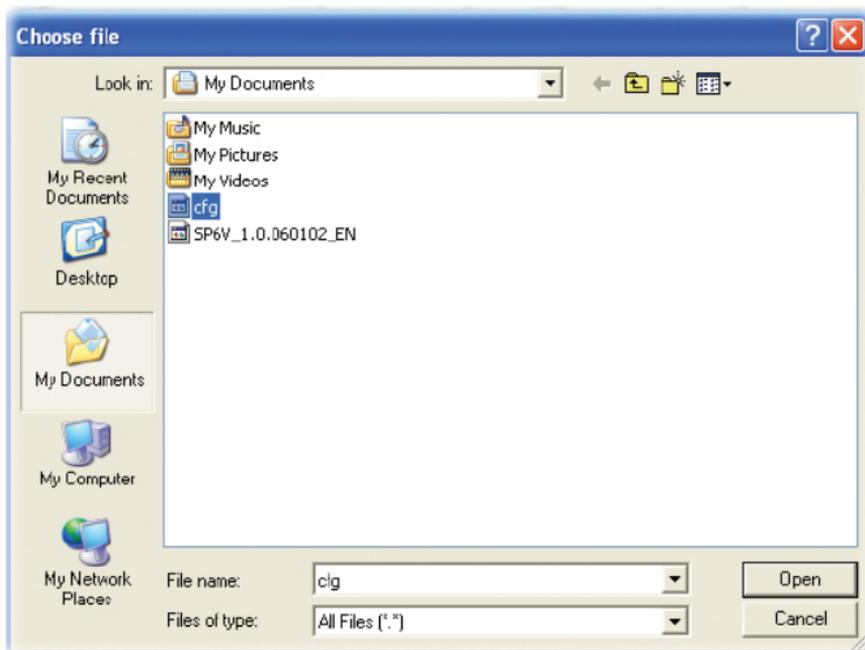


2. Select the location where you would like to place the file (.bin format), then click **Save**.



## To upload a previously saved configuration file

1. Click the **Browse** button.
2. Navigate to the location of your previously saved `cfg.bin` file, then click **Open**.



3. Click the **Upload** button to begin. Once the upload is complete, the PDU will restart automatically.

# Firmware Upgrade Procedure

StarTech.com® ZDL-2B User: admin Login Time: 03/11 13:49 Will be logout after 29:54 [Reset](#) [Logout](#)

[MONITOR](#) [SYSTEM](#) [FIREWALL](#) [ACCOUNT](#) [TIME](#) [CHART](#) [EVENT](#) [UPGRADE](#)

Product Name: ZDL-2B  
Firmware Version: 0.998 Build: 201503091637 [Reboot Device](#)

Please reboot device first before upgrade firmware.

Upload firmware: [Choose File](#)  
Upload configuration: [Choose File](#)  
Download configuration: [Save](#)

1. Click **Browse**.
  2. Select the directory of the firmware update files and click **Open**.
- The device will automatically restart and finish the firmware upgrade.

# Specifications

<b>Ports</b>	2
<b>Connectors</b>	1 - IEC 60320 C14 Power Plug 1 - RJ-45 Female 2 - NEMA 5-15 Power (North America) Receptacle
<b>Max. Current load per Port</b>	8 A
<b>Max. Total Current Output</b>	12 A
<b>Power Consumption</b>	4.5 W
<b>Enclosure Material</b>	Steel
<b>Operating Temperature</b>	0°C to 40°C (32°F to 104°F)
<b>Storage Temperature</b>	0°C to 70°C (32°F to 158°F)
<b>Humidity</b>	0~85% RH (Non-Condensing)
<b>Dimensions</b>	182 x 125 x 44 mm
<b>Weight</b>	780g

# Technical Support

StarTech.com's lifetime technical support is an integral part of our commitment to provide industry-leading solutions. If you ever need help with your product, visit [www.startech.com/support](http://www.startech.com/support) and access our comprehensive selection of online tools, documentation, and downloads.

For the latest drivers/software, please visit [www.startech.com/downloads](http://www.startech.com/downloads)

## Warranty Information

This product is backed by a two year warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

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