

ACCESSING YOUR POWER CONTROLLER FROM THE INTERNET

This paper assumes that you have already configured the power controller to work inside your network. It also assumes that the Same Subnet Only option is un-checked in the network setup your power controller.

PORT FORWARDING

The way to set up port forwarding will vary from manufacturer to manufacturer and model to model, but the concept is the same.

You'll likely want your power controller on a non-standard port so that it is not too easy to find by the troublemakers on the Internet. I will assume in this paper that you set up your power controller at port 366.

Go into your Router Setup and look for Port Forwarding or Applications and Gaming. You'll want to choose single port forwarding if given a choice.

Make an entry for your power controller. The external port is the Internet Port and the Internal Port is the port used in the network setup of the power controller. The IP Address that you enter is the IP address of your power controller.

Some Port Forwarding configurations only offer an external port option and assume that the internal port will be the same. In this case, you will need to change the port of the power controller to the same port as the port that you are about to assign.

Network	
MAC Address	00:0b:78:66:c7:bf
HTTP port	366
IP address	192.168.11.8
Subnet mask	255.255.255.0
Gateway	192.168.11.1
Same subnet access only	<input type="checkbox"/>
Syslog Server	0.0.0.0
<input type="button" value="Submit"/>	

After setting this, be sure to test access to your controller from the internal network before continuing. In this case, you would enter <http://192.168.11.8:366> in the address bar of your browser.

Once this is working properly, you can continue with your port forwarding configuration.

This router supports port translation. Note the External Port and Internal Port entries. Many routers only have one port listed. In those cases, the method above, where the port of the power controller is changed is required.

The screenshot shows the Cisco Linksys E3000 router's web interface. The 'Applications & Gaming' section is selected, and the 'Single Port Forwarding' tab is active. A table of port forwarding rules is displayed, with the 'LPC' rule highlighted in red. The table has the following data:

Application Name	External Port	Internal Port	Protocol	To IP Address	Enabled
None	---	---	---	192.168.11.0	<input type="checkbox"/>
None	---	---	---	192.168.11.0	<input type="checkbox"/>
None	---	---	---	192.168.11.0	<input type="checkbox"/>
None	---	---	---	192.168.11.0	<input type="checkbox"/>
None	---	---	---	192.168.11.0	<input type="checkbox"/>
LPC	366	366	TCP	192.168.11.9	<input checked="" type="checkbox"/>
Wake On LAN	9	9	UDP	192.168.11.10	<input checked="" type="checkbox"/>
VPDU	365	365	TCP	192.168.11.8	<input checked="" type="checkbox"/>
Minecraft	25565	25565	Both	192.168.11.14	<input checked="" type="checkbox"/>
Ventrillo	3784	3784	Both	192.168.11.14	<input checked="" type="checkbox"/>

Once configured, attempt to access your power controller from the external IP address. In this example, on this page, <http://188.186.52.78:366>.

Do you know where your network is?

You can find your IP address by checking the status page of the router or visiting a website such as <http://www.whatismyip.com>.

Do you have an IP address that may change? If you do not know if you have a static IP address, then there is a good chance that it is dynamic. This means that at any time, your network provider may reset your modem and the IP address to your location may change. If this is the case, then you will need to set up a Dynamic Domain Name Service (DDNS) so that you can locate your DLI power controller from anywhere – anytime.

DYNAMIC DNS

If you do not have a static IP address for network, your IP address may change over time. To ensure access from anywhere, you need to set up a dynamic name service. There are several service providers and some are free. <http://dyn.com/dns/> and <http://www.tzo.com/> are two popular providers.

Set up Dynamic DNS in your router. Here is an example in a LinkSys E3000 Router

The screenshot displays the DDNS Service configuration interface for a LinkSys E3000 Router. The interface includes a navigation menu with options like Setup, Wireless, Security, Storage, Access Restrictions, Applications & Gaming, Administration, and Status. The DDNS Service section is active, showing a dropdown menu for the service provider (DynDNS.org), input fields for Username (yourusername), Password (masked with dots), Host Name (yourhost.dyndns.org), and System (Dynamic). There are also radio buttons for Backup MX and Wildcard, both set to Disabled. The Internet IP Address is 188.186.52.78. A status message indicates 'DDNS is updated successfully, Operation complete'. Buttons for 'Update', 'Save Settings', and 'Cancel Changes' are visible at the bottom.

If your router does not support dynamic DNS, then you'll need to install a dynamic DNS updater program which will be provided by the service provider that you choose. Unfortunately, you will need to keep a computer running at the power controller location to provide the IP address updates if this is the case. More information is available from your dynamic DNS provider.