

Raptor Connect 1.1.X Operator's Manual

Congratulations on your newest RaptorConnect PDU or UPS! You are well on your way to managed power bliss!

If this is your first time setting up a RaptorConnect device, consider checking out our Getting Started Guide. Otherwise, for more advanced feature documentation, consider one of our in depth guides below.

Getting Started

This guide will help you connect to your RaptorConnect PDU or UPS and start on your way to managed power bliss. This guide applies to your PDU or UPS as it was shipped from Raptor Power Systems.

Steps

- Connect your RaptorConnect device to your network with an ethernet cable.
- The RaptorConnect device has a default recovery IP of `200.255.254.20`, which cannot be disabled. Configure your workstation to have a static IP with an IP address of `200.255.254.5` and a subnet mask of `255.255.255.0`.
- Open a web browser and connect to your RaptorConnect device at `https://200.255.254.20`. If you have just connected your RaptorConnect device to power, it may take a minute for this page to become available. After waiting a minute or two, try refreshing the page.
- Once the page has loaded, you can go to `Settings > Network` on the left-hand sidebar to see the unit's IP address in your network. You can access your RaptorConnect once you connect back to your network with your usual IP, going in your web browser to `https://RAPTORCONNECTIP`.
- If you have any questions, feel free to reach out to `rchelp@raptorpowersystems.com` for support!

[API] HTTP(S) API Guide

All functionality of RaptorConnect is exposed through the HTTP API. If you can do something in the web interface, you can do it through the API. Most API calls operate as HTTP get requests sent to the IP address of your raptorconnect PDU. These APIs try to follow a natural language model, so they are easy to remember. for example, to toggle your first relay, you might send the following command to the board: `get http://RAPTORCONNECTIP/relay/toggle/1`.

The commands always follow the format of `get http://RAPTORCONNECTIP/DOMAIN/ACTION/DATA`. A domain is anything that may be acted on in the RaptorConnect, and an action is anything you might do in a domain (like toggling a relay). Documentation for the HTTP(S) API is broken down into domains, and a listing of domain links can be found below. If you have any questions, feel free to email them to `rcsoftware@raptorpowersystems.com`

[API] /ethernet

The ethernet API is not yet fully implemented in the standard build, but the following actions are exposed. Documentation for these actions will be added as they are approved for the standard build.

/status

This command returns the status of the ethernet interface.

/enable_dhcp

This command enables DHCP on the ethernet interface.

/disable_dhcp

This command disables DHCP on the ethernet interface.

/reset_dhcp

This command releases and renews the DHCP-configured address on the ethernet interface.

/set_static

This command configures the static IP for the ethernet interface.

/unset_static

This command removes any static IP configuration from the ethernet interface.

[API] /relay

/status

This command returns the status of all the relays in a JSON format. The object returned has two properties, namely "status" and "ad". Both are arrays of integers. The "status" array contains the binary status of all the outlets, either on or off. A "1" in the array indicates that the relay at that index is on. A "0" in the array indicates that the relay at that index is off. For example, a status array of `[0,0,0,1,0,0,0,0,0,0,0]` would indicate that all outlets except outlet four (at index three) were offline.

The AD array contains the readings of any sensors in your unit, which mostly are current sensors. These readings go from 0 to 131070, and represent a fraction of the full range of the sensor reading. For current sensors, each step represents 0.22888532mA, so an AD array of `[0,0,0,0,0,0,12829,0,0,0,0]` would indicate that there was no current on any outlet except outlet seven (at index six), and that outlet had a current of $12829 * 0.22888532\text{mA}$, or 2.94A.

/toggle/RELAYID

This command toggles the relay at ID RELAYID. This ID is the number of the outlet from the web interface, with the first outlet being outlet one.