

Ruby – Single ISP Installation Guide

Introduction:

Ruby is the project name for the device designed and built by PPN to act as a site "watchdog". As a watchdog the function of Ruby is to monitor the internet connection of the site. If the internet is lost for a period of time (approximately 5 minutes) Ruby will send a signal to the Power Distribution Unit (PDU) to cycle the power on the router. The router is reset because it has been the experience at PPN that with certain conditions of losing and regaining the internet signal the router will hang-up and stop working. In most cases a simple cycle of power on the router will restore the site.

In addition to this automatic router reset function Ruby will have the ability to be accessed remotely. This remote access will allow PPN to manually cycle the power on either the router or the GNSS receiver (typically a Navcom SF-3050). This will hopefully remove most of the times where PPN has required assistance from the site host to cycle the power on the various devices on our behalf.

Installation:

This installation guide applies to sites with only one internet connection. If the site has a second back-up internet connection the installation procedure is slightly different so please to refer to the Ruby – Dual ISP Installation Guide for the details on how to properly install Ruby on a site with two independent WAN internet connections.

Power:

The site should currently be plugged into power as described in the diagram below. The Router, Receiver should be plugged into the UPS (Uninterruptable Power Supply) or a power-bar if the UPS is either not there or if the UPS is being bypassed while the UPS is waiting for maintenance repair). The site ISP modem and/or an Ethernet switch may also be connected to the same power supply.





The devices currently connected to the Power-bar / UPS should be moved to be plugged into the newly supplied PDU as shown in the diagram below. The power receptacle on the PDU that each device plugs into DOES matter.

- The router should be in receptacle #1,
- The GNSS Receiver should be plugged into receptacle #4
- If the ISP modem is plugged into the PDU it should be plugged into same receptacle as the router; receptacle #1
- If an Ethernet switch is used to split the internet connection between the host and the PPN equipment and was plugged into the PPN power-bar /or UPS, the switch shall be plugged into receptacle #3.



The PDU and the Ruby power adapter should then be plugged into the power-bar or UPS as shown in the following diagram.



Ethernet:

For the internet connection the only requirement is that Ruby be connected to the router. A Cat5e or better Ethernet cable should be used. The Ethernet cable shall plug into the RJ45 Ethernet port on Ruby



and one of the vacant LAN ports on the PPN router. In some installations there is a Moxa device plugged into the PPN router. This device is no longer needed and can be removed.

