

1. Overview

The Cypress Envirosystems Wireless Pneumatic Thermostat (WPT) retrofits an existing pneumatic thermostat to provide Direct Digital Control (DDC) like zone control functionality at a fraction of the time and cost without disturbing occupants.

The WPT enables remote monitoring of zone temperature, branch pressure, remote control of setpoints, and programmable setback or setup of the pneumatic HVAC systems. It also enables integration with utility Demand Response programs.

The WPT Green Box is a core component of the WPT Wireless Network. The WPT Green Box has data logging functions, as well as hosting the configuration tools, remote monitoring and control applications, Auto Demand Response interface, and WPT BACnet Gateway.

1.1. Prerequisites for Installation

The following tasks must be completed before proceeding to WPT Green Box installation:

- Wireless network planning – identify locations of WPTs and repeaters
- Select the location for the WPT Green Box and USB Hub (HUSB)
- Determine WPT Node ID numbers

Manuals for the WPT, WPT Green Box, HUSB and other manuals related to the WPT system can be found at <http://www.cypressenvirosystems.com/wpt-downloads.php>.

2. WPT Green Box Installation

The overall WPT Green Box installation procedure includes:

- Setting up the WPT Green Box
- Accessing the WPT Green Box to confirm connectivity

2.1. Setting up the WPT Green Box

To set up the WPT Green Box, perform the following:

1. Set or mount the WPT Green Box in a secure place.
2. Connect the power cable to the WPT Green Box.
3. Connect the HUSB to any USB port
4. Connect a network cable to the network port of the WPT Green Box.

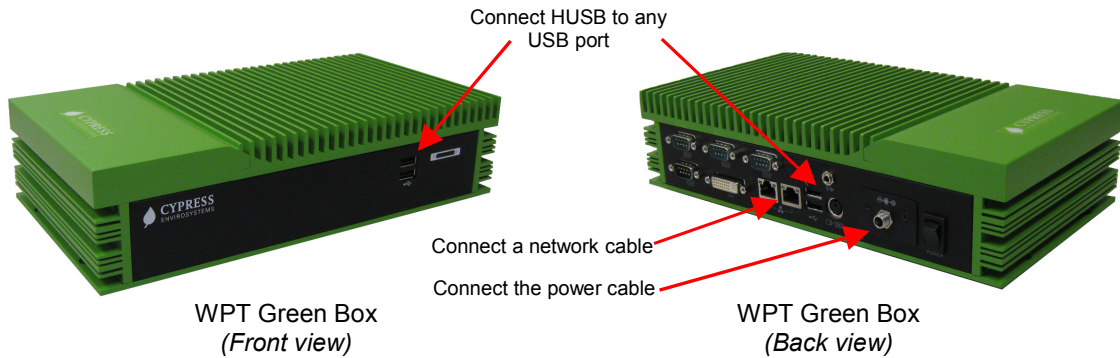


Figure 1. Connections to the WPT Green Box

2.2. Accessing WPT Green Box

WPT Green Box can be accessed directly by connecting a monitor, keyboard and mouse, or from a computer (PC) using Microsoft Remote Desktop Connection.

2.2.1. Accessing WPT Green Box Using Remote Desktop Connection

1. Use a network cable to connect a computer to the WPT Green Box.
2. Configure the computer to obtain a dynamic IP address.

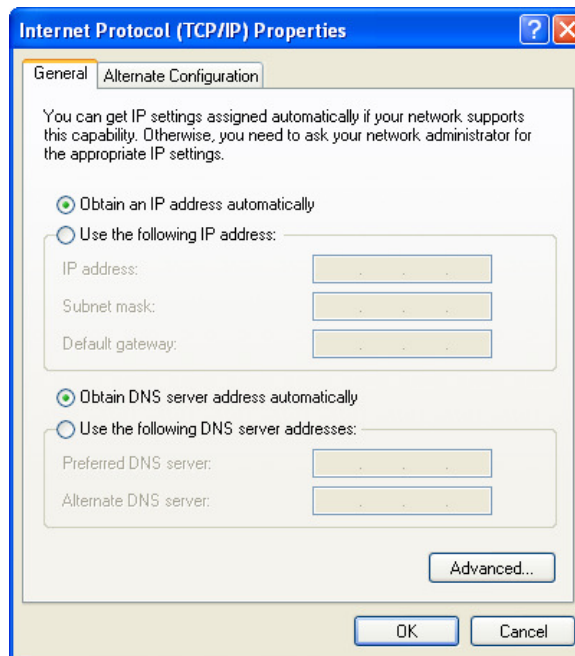


Figure 2. Configuring TCP/IP

3. Start the Remote Desktop Connection on the computer
(Start → All Programs → Accessories → Remote Desktop Connection)
4. Enter the WPT Green Box's default machine name "WPTServer" as the computer name and click "Connect".



Figure 3. Remote Desktop Connection Screen

5. Enter the following username and password to log on to the WPT Green Box.

Default username: **Contact Cypress**
Default password: **Envirosystems for password**



Figure 4. Remote Desktop Login Screen

3. Accessing the WPT Web Portal

The WPT Web Portal has a setup tool for generating the IDs required for configuring the HUSB, repeaters, and WPTs in the wireless network. The WPT Web Portal can be accessed using Microsoft Internet Explorer from any computer that is connected to the same network as that of the WPT Green Box.

To access the WPT Web Portal:

1. Start Internet Explorer.
2. Enter <http://WPTServer/> in the address bar and click **Go**. The WPT Web Portal login page is displayed.

Note: If the default name of the WPT Green Box has been changed, use the correct IP address of the WPT Green Box.

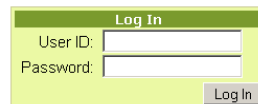



Figure 5. Logging onto the WPT Web Portal

3. Enter username and password in the respective fields.
4. Click **Log In**.

3.1. Creating Network, Repeater, and Node IDs

Before installing the HUSB, repeaters and WPTs, the installer should create the network ID, repeater IDs and node IDs in the WPT Web Portal and use the same IDs for configuring the HUSB, repeaters, and WPTs.

3.1.1. Creating the Network ID

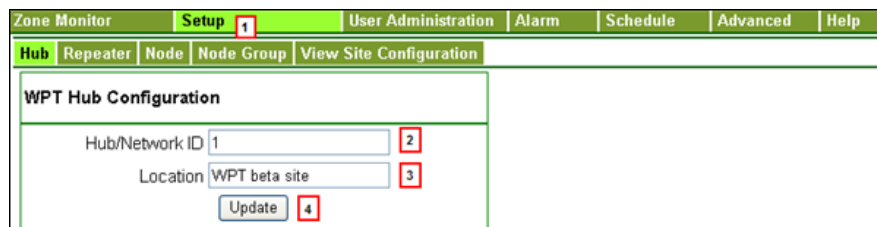
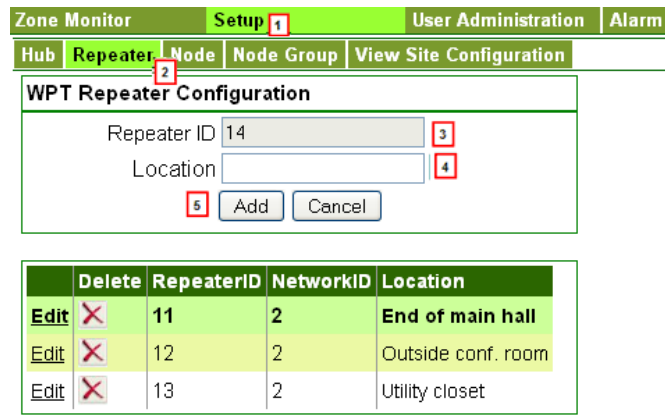


Figure 6. Creating a Network ID

1. Click the **Setup** tab in the WPT Web Portal. The WPT Hub Configuration page is displayed.
2. Enter a network or Hub ID in the **Hub/Network ID** field. This ID must match the ID programmed on the installed HUSB.
3. Enter a location in the **Location** field.
4. Click **Update**.

3.1.2. Creating Repeater ID



WPT Repeater Configuration

Repeater ID:

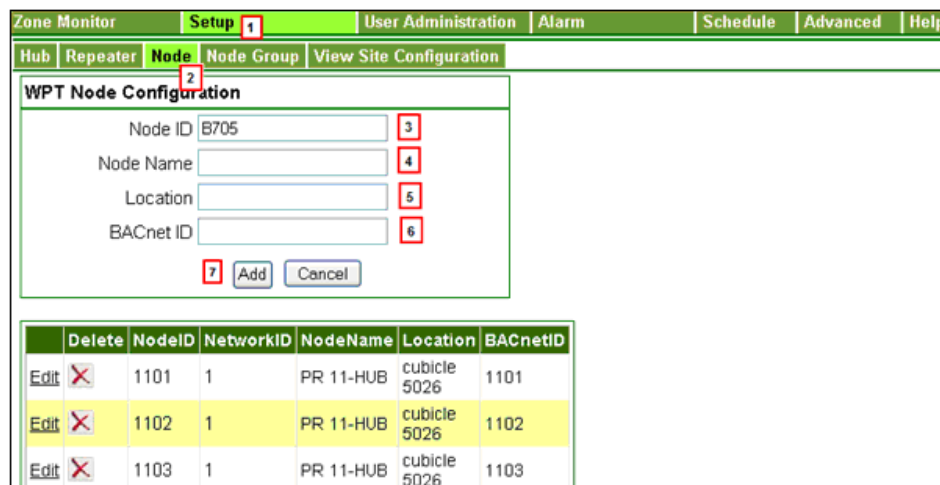
Location:

	Delete	RepeaterID	NetworkID	Location
Edit	<input type="checkbox"/>	11	2	End of main hall
Edit	<input type="checkbox"/>	12	2	Outside conf. room
Edit	<input type="checkbox"/>	13	2	Utility closet

Figure 7. Creating a Repeater ID

1. Click the **Setup** tab in the WPT Web Portal.
2. Click the **Repeater** tab. The WPT Repeater Configuration page is displayed.
3. Enter a repeater ID in the **Repeater ID** field. The repeater ID must match the ID programmed on the installed repeater.
4. Enter a location in the **Location** field.
5. Click **Add**. The newly added repeater should appear in the table.

3.1.3. Creating Node ID



WPT Node Configuration

Node ID:

Node Name:

Location:

BACnet ID:

	Delete	NodeID	NetworkID	NodeName	Location	BACnetID
Edit	<input type="checkbox"/>	1101	1	PR 11-HUB	cubicle 5026	1101
Edit	<input type="checkbox"/>	1102	1	PR 11-HUB	cubicle 5026	1102
Edit	<input type="checkbox"/>	1103	1	PR 11-HUB	cubicle 5026	1103

Figure 8. Creating a Node ID

1. Click the **Setup** tab in the WPT Web Portal.

2. Click the **Node** tab. The WPT Node Configuration page is displayed.
3. Enter a node ID in the **Node ID** field.
4. Enter a node name in the **Node Name** field.
5. Enter a location in the **Location** field.
6. Edit the **BACnet Device Object ID** of the WPT, if required.
7. Click **Add**. The newly added node should appear in the table.

4. Troubleshooting the WPT Green Box

Symptom / Error	Solution
Green Box not booting	Check the power supply to the WPT Green Box.
Not able to connect from a computer to the green box using the Remote Desktop Connection	Make sure the IP of the Laptop configured is in same subnet of the WPT Green Box. If connecting a computer directly to the green box, make sure the computer is configured to obtain a dynamic IP address.
Latest data not reflected on Web Pages	Make sure the HUB is connected via USB to the Green Box. Try restarting the Green Box.
Schedules are not functioning properly	Restart the Green Box.
Alarm notification is not working	Restart the Green Box.
Some WPT Devices are not displayed while accessing from BACnet/IP	Contact a qualified service technician to troubleshoot this problem.

Note: Connect to the WPT Green Box using Remote Desktop or directly using a keyboard and monitor to restart Windows.

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