

The Rain8upb Pro is a modular 8-zone sprinkler controller that is driven by a UPB power line interface (PIM).

These instructions cover the installation of the “master” module, first 8 zones of a Rain8 UPB system.

Features:

- ON - OFF control of each valve at the Rain8 module itself, no need to run back to a PC to turn a zone on (or off).
- Each zone has a LED to indicate if it is running or idle.
- All valve wires and connections are protected against lighting surges.
- All RS232 and network connections protected against ESD and lighting.
- Each of the 8 outputs to the valves is protected against overloading by a self-resetting electronic fuse.

Verify Contents of Shipping Container

1. Rain8upb PRO module
2. 110 to 24-vac, 20VA transformer
3. Modular data cable with RJ11 plugs
4. #10013 adapter for PIM
5. #40015 adapter for PC config
6. DB9 gender changer

Not supplied but required for operation:
A UPB power line interface (PIM)

Additional units may be daisy chained to provide control and 24 VAC power to as many as 2040 irrigation zones from a single COM port.

A 12 position terminal strip is found on all modules. Connect the 24 VAC to this module only; the remaining modules are powered over the 8-conductor network cable.

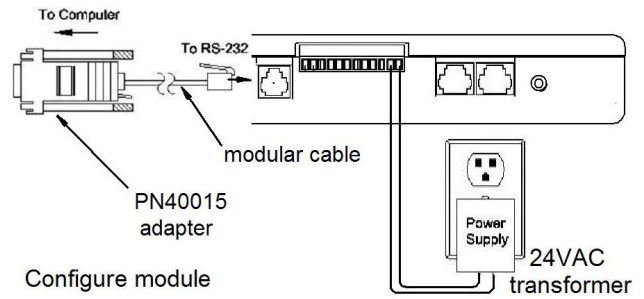
There is a single RS232 connection between the PIM and this "master" Rain8.

The network connection for the expansion units is an 8 conductor RJ45. Each expansion has a pair of these modular jacks to pass on data and power to the next one in a daisy chain. Each expansion also has a RS232 connection that is used only to configure the module during the initial setup.

Configure Rain8upb

You will need a PC with Windows 98 or later as your operating system, a serial port and the supplied 6 conductor modular cable with the adapter identified as PN40015. Do not confuse this adapter with the other one that is needed to connect to certain PIMs.

The 24VAC power must be applied to configure your module.



Download initial configuration software at page bottom
<http://wgl designs.com/rain8upbpro.html>

Select the serial port that the Rain8upb is connected to and click “Apply” to select COM port. “After a few seconds you should see a message box indicating that a UPB Rain8 was detected. Click on “OK”.

Enter the NID number that identifies your UPB network.

Enter the Rain8 module # you wish to assign to this module. Note that the corresponding DID (device ID) number for each zone is displayed just below. For example if you enter module# 3 you should see the mapping for all 8 zones. Zone 1 = DID 17, 2 = 18, etc.

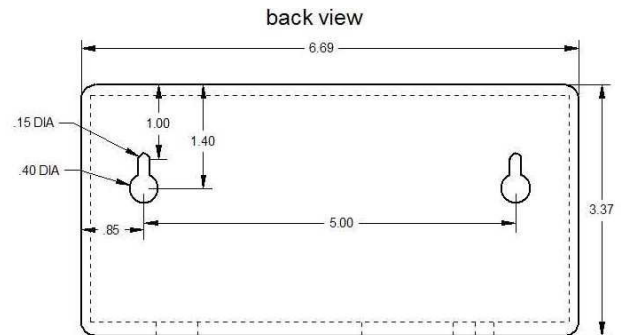
The 8 input boxes labeled “default run timers” are used to program the maximum allowed run time in minutes or seconds that a given zone or valve will run before turning off automatically. The settings for each zone may be anything from 0 to 250 increments. This prevents “run away irrigation” in the event of a lost “OFF” command. If this feature is desired click on “enable” and select minutes or seconds.

The last step is to click on the “load module” button. The configuration data is now loaded into your Rain8upb. Disconnect the RJ11 cable from the PC and module.

Installation

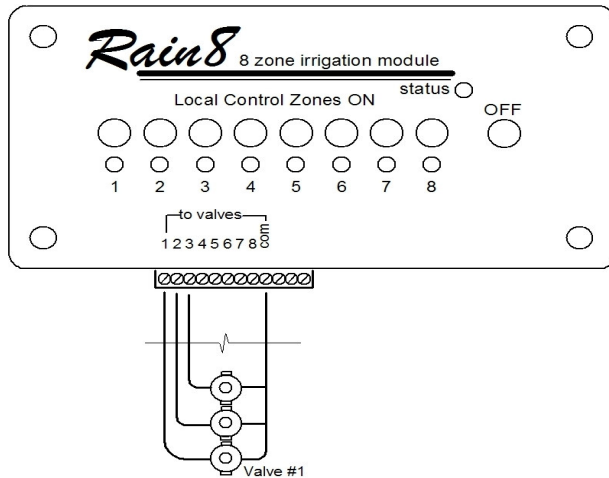
Controller Location

- Select a mounting location that is close to an electrical outlet and the valve wires that will connect to it.
- The controller should not be exposed to water. If used outside, it is necessary to provide a weather proof housing for your Rain8.



Wiring the Valves

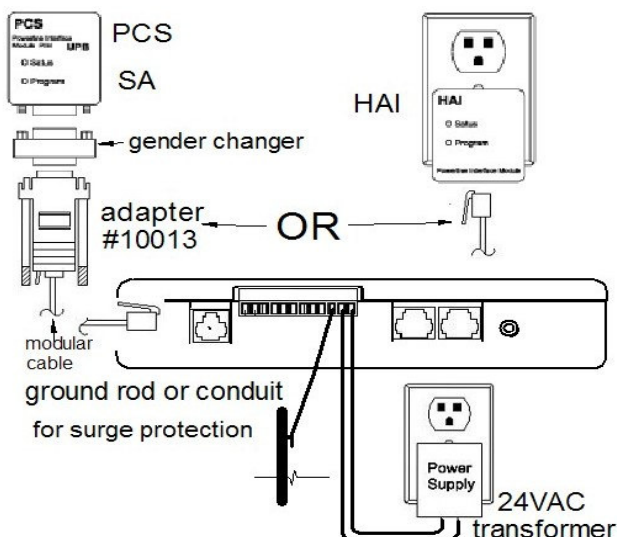
- If the maximum distance is less than 600 feet, use a single 20 gauge, plastic insulated wire for each valve.
- Each valve has two wires. One wire is designated as the common. All of the common valve wires can be connected together to one wire going to the controller.
- Only one valve should be connected to each zone.
- The rated output is 24 VAC at .30 amps (300ma), per zone.



Connecting the Valve Wires to the Controller

- Determine which valve is to be connected to each zone. Insert each valve wire into its respective position on the terminal strip and gently tighten the setscrew.
- Connect the common wire from the valves to the terminal labeled "common".

Transformer, ground rod and PIM connections

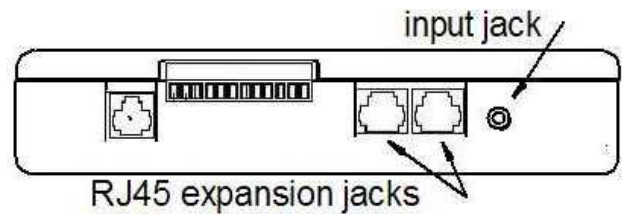


Connect the 24-VAC transformer to the two terminals labeled "24 VAC". Note that this is required only on the first module installed as the power for additional units is supplied by means of the network connections.

The PCS & Simply Automated PIMs have female DB9 jacks so it is necessary to use the 10013 adapter and the M-M gender changer in addition to the modular cable.

The HAI has a RJ11 jack and may be connected directly with the modular cable furnished with this kit.

The ground rod connection is necessary to protect your module and PC from lightning surges.



Connect the rain sensor or flow meter using the 3.5mm phono jack as shown above.

The expansion jacks are used only for adding additional Rain8upb modules to an existing system.

Troubleshooting with the Status LED

This Rain8 features a status LED visible on the top.

Regular flashing LED

No PIM detected. Check modular cable and verify correct type. Verify interface plugged in to outlet and connected to Rain8.

No LED

Verify 24VAC transformer is connected to the last two terminals on the detachable terminal strip.

Steady LED

Everything is working okay. No incoming commands.

Long blink off (1 – 2 seconds)

Incoming command detected with an address that is enabled. The specified zone's LED will be on and 24VAC will be present between the selected zone terminal and the common terminal.

Short blink off (1/2 second)

Incoming command detected with an address that is **NOT** enabled. .