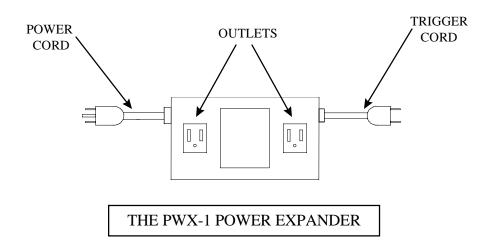
### PWX-1 POWER EXPANDER

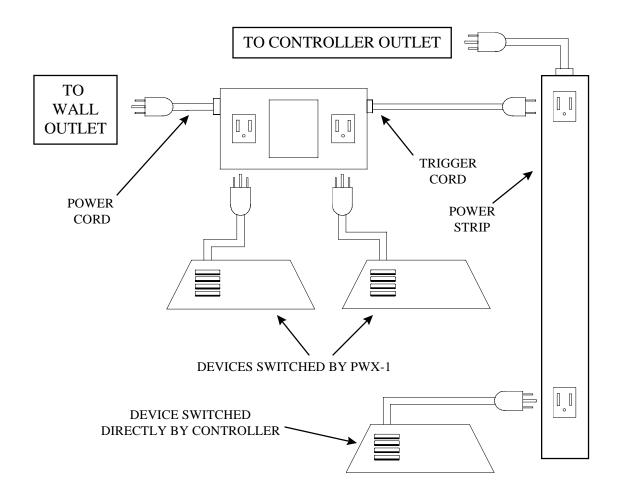


The Solatel PWX-1 Power Expander lets you control more devices without tripping circuit breakers. A typical plug-in controller, such as Solatel's Plant Pro, is limited in the current that can be drawn from it because of the 15 Amp rating of the typical 120 VAC outlet. This allows control of only a single 1000 Watt lamp. Adding a PWX-1 allows control of an additional 1000 W lamp or two 600 W lamps or any other combination of devices that draw no more than 15 Amps total. The PWX-1 can be used with pumps, fans, or other devices. Multiple PWX-1's can be used to control a large number of devices.

The PWX-1 has two cords and two outlets. The Power Cord provides current to both of the PWX-1 Outlets. The Power Cord is usually plugged into a wall outlet that is not on the same circuit breaker as the controller. The Trigger Cord provides the control signal which switches the Outlets on or off. The Trigger Cord draws little current and can therefore be connected to a controller along with other devices being controlled without tripping a circuit breaker. The Outlets are on only when there is 120VAC on both the Power Cord and the Trigger Cord. If only one cord has 120VAC, then both Outlets are off.

Extension cords on the Power Cord should be rated for the current needed by the devices plugged into the PWX-1 Outlets. The total current drawn from the PWX-1 Outlets combined is 15 Amps maximum. Typically, an extension cord, power strip, or outlet tap will be plugged into the controller's outlet. This allows connection of the Trigger Cord in addition to any devices being controlled that are within the current capacity of the controller. This extension cord or equivalent should be rated for the total current drawn by all devices plugged into it. The Trigger Cord draws 0.04 Amps maximum. If only Trigger Cords are plugged into an extension cord, then a standard 18 AWG (or better) cord will do.

## **BASIC PWX-1**



#### **BASIC INSTALLATION**

- **STEP 1** Plug Power Strip (or extension cord or outlet tap) (not supplied) into the controller's outlet.
- STEP 2 Plug devices to be switched directly by the controller into the Power Strip. The total current of these devices must be within the current capacity of the controller.
- **STEP 3** Plug the Power Cord into a wall outlet.
- STEP 4 Plug the devices to be switched by the PWX-1 into the PWX-1 Outlets.
- STEP 5 Plug the Trigger Cord into the Power Strip

### **MULTIPLE PWX-1**

More than one PWX-1 can be used to switch a group of devices. Installation is generally the same as for a single PWX-1. There are two ways of connecting the Trigger Cords:

- STAR All Trigger Cords are plugged into the Power Strip.
- **CHAIN** Only the first PWX-1 has its Trigger Cord plugged into the Power Strip. The second PWX-1 plugs its Trigger Cord into an Outlet on the first PWX-1, the third into the second, and so on. This allows the PWX-1's to be arranged in a long row spaced by the length of the Trigger Cords. It does use up one Outlet on the PWX-1, although a multi-tap adapter could be used. For systems with 1000W lamps, only one lamp can be run per PWX-1 anyway. With a chain, if a PWX-1's Outlet shuts off (such as if a building circuit breaker trips), all PWX-1's later in the chain will also shut off.

The building's circuit breakers need to be considered. Even though each PWX-1 can provide 15 Amps, if two PWX-1's Power Cords are both plugged into wall outlets on the same breaker, the total current will be limited to the breaker rating, typically 15 or 20 Amps. In many cases, the Power Cords will need to be plugged into wall outlets on different breakers to avoid this problem. The Power Cords should not all be plugged into the same power strip or extension cord because they would then all be on the same circuit breaker.

#### MULTIPLE PWX-1 STAR INSTALLATION

(see diagram on Page 4)

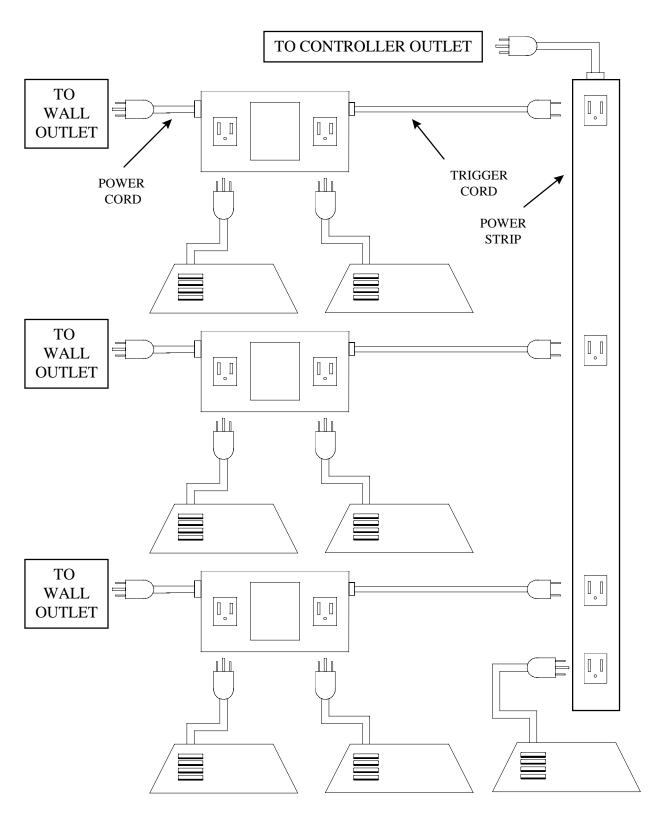
- **STEP 1** Plug Power Strip (not supplied) into the controller's outlet.
- STEP 2 Plug devices to be switched directly by the controller into the Power Strip.
- STEP 3 Plug the Power Cord of each PWX-1 into a wall outlet.
- STEP 4 Plug devices to be switched by PWX-1's into PWX-1 Outlets.
- STEP 5 Plug the Trigger Cords of all PWX-1's into the Power Strip.

#### MULTIPLE PWX-1 CHAIN INSTALLATION

(see diagram on Page 5)

- **STEP 1** Plug Power Strip (not supplied) into the controller's outlet.
- STEP 2 Plug devices to be switched directly by the controller into the Power Strip.
- STEP 3 Plug the Power Cord of each PWX-1 into a wall outlet.
- **STEP 4** Plug devices to be switched by PWX-1's into PWX-1 Outlets.
- STEP 5 Plug the Trigger Cord of first PWX-1 into the Power Strip.
- STEP 6 Plug the Trigger Cord of the second PWX-1 into Outlet of the first PWX-1.
- STEP 7 Plug the Trigger Cord of the third PWX-1 into Outlet of the second PWX-1.
- STEP 8 Continue Trigger Cord installation chain as required for all the PWX-1s.

# MULTIPLE PWX-1: STAR



# **MULTIPLE PWX-1: CHAIN**

