PET-II

Programmab
Effect Time

COWLACIOUS DESIGNS
By Computer & Electronic Services

CAUTION!

Avoid Possible Safety Hazards!

- Please read the entire manual before attempting to use this device.
- When this device is plugged in to an AC outlet, some output terminal screws and output connections could shock you.
- When using AC voltage, always use a three-prong connection! Make sure your outlet is properly polarized or damage could occur to the unit and possibly the user.
- Do not use the PET-II in wet locations.
- This device is not recommended for outdoor locations unless it is properly protected.

Always unplug the PET-II before adjusting any of the terminal screws or making connections!

Introduction:

Congratulations on choosing one of the most versatile effect controllers on the market. The Programmable Effect Timer (PET-II) has been designed to meet the needs of the professional haunter at a cost that is appealing to the home haunter.

Please take the time to familiarize yourself with this manual. You will find that it can help you in achieving the most from this product and the effect (prop) that you desire to control.

The PET-II-II has many features that make it unique in the marketplace and it provides the user with many different set-up options. This unit is capable of the following types of settings:

- **Initial Delay Setting**. This allows you to set some time between when the PET-II is triggered and when you want the effect to actually operate. This may be used when the location of the triggering device cannot be placed right where you want it to be triggered. The PET-II will not be able to be retriggered during this time.
- **On-Time Setting**—both in ½ second and/or minute intervals. This is the time that the effect will actually operate. The PET-II will not be able to be retriggered during this time.
- **Off-Time Setting**—both in ½ second and/or minute intervals. This is the time you would like the unit to remain off and not be able to be retriggered by someone. This prevents people from repeatedly activating the effect, one time after another.
- **Repeat Setting**. This function allows you to set how many times the effect will repeat the above On-Time and Off-Time settings after the Initial Delay Setting--every time the PET-II is triggered. When using the Repeat Setting, the last Off-Time in the cycle is replaced by the Repeat Off-Time (listed below). So, if the Repeat Setting was programmed to be zero, then the device would skip the repeat time settings. However, if the Repeat Setting was set to three, for instance, you could have a prop that, when triggered, would go through its Initial Delay Setting (if one was programmed), turn on for the On-Time, go off for the Off-Time, turn on for the On-Time, go off for the Off-time, turn on for the On-Time, and go off for the Repeat Off-

Time (listed below). The device would then be ready to be retriggered again. It cannot be retriggered until it has gone through the entire routine.

- **Repeat Off-Time**—both in ½ second and/or minute intervals. This is the time you would like the unit to remain off and not be able to be retriggered by someone. This setting essentially takes place of the final Off-Time setting when used with the Repeat Setting.
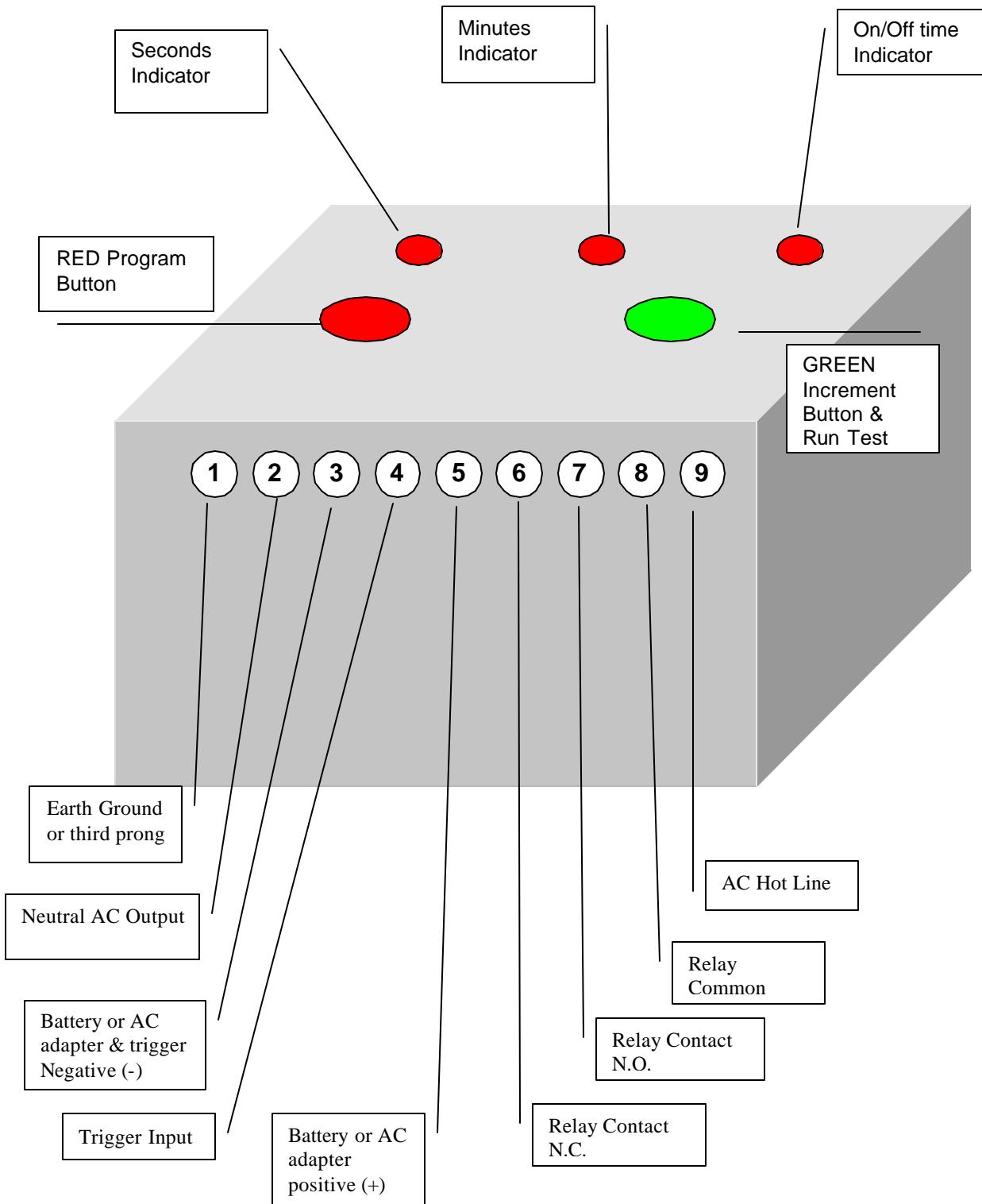
Its features include:
- Automatic Self Retriggerable operation. If you do not want to hook the device up to something to trigger it, you can hook it up so that it automatically continues to retrigger itself. It will go through any and all of the above settings and then start over, just as if someone had triggered it again.
- Multiple units can be hooked up to the same triggering device to provide more complicated animation of your props.
- It never loses it programmed time settings even when the power is unplugged.
- It takes only a few seconds to program the times and settings you want to use.
- You can have one device hooked up to the normally closed contacts and another hooked up to the normally open contacts of the relay. When the PET-II is triggered it will turn off the device connected to the normally closed contacts and turn on the device connected to the normally contacts and vice-versa.
- The relay contacts can be used to switch AC or DC devices.
- The PET-II can be battery powered or you can use the included wall transformer to power it off the AC line.

Please note:
Any type of switch may used to trigger the PET-II, but it cannot have any voltage going to the switch. This includes devices such as step pads that can be placed under the carpet or under door mats. Infrared devices such as motion sensors or beam break detectors can be used just as easily. You can even use proximity sensors. The important thing to remember is that the contacts that connect to the PET-II's trigger inputs cannot have any voltage on them at any time. The device you connect to the PET-II must never put voltage on trigger inputs of the PET-II. Please contact us if you have any questions about what can and cannot be used to trigger the PET-II.

Location of Controls, Displays, & Connections

Seconds
Indicator

Minutes
Indicator

On/Off time
Indicator

RED Program
Button

GREEN
Increment
Button &
Run Test

1 2 3 4 5 6 7 8 9

Earth Ground
or third prong

Neutral AC Output

Battery or AC
adapter & trigger
Negative (-)

Trigger Input

Battery or AC
adapter
positive (+)

Relay Contact
N.C.

Relay Contact
N.O.

Relay
Common

AC Hot Line

Operation

This unit comes setup for AC operation and is preprogrammed with the following settings:

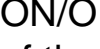|	
3	seconds initial delay
6	Seconds ON (activated) time
15	Seconds OFF (unable to activate) time
0	Repeat
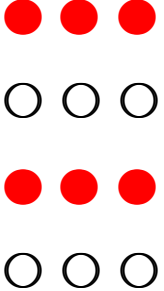
To use these setting just apply power to the PET-II by installing the batteries or by replacing the battery pack with the optional AC-to-DC wall adapter and plug in the adapter. You will see the timer go through its initialization stage where all the LED's turn on, then off, then on and then off again (the LED's will flash twice) – the circuit is then operational. Plug in the PET-II to an AC outlet. Plug the device that you want to control into the PET-II's AC outlet. You can test the PET-IIs operation by pressing the GREEN button. The GREEN button is internally connected to the same place as you connect the triggering device (i.e. switch, step pad, IR detector's relay, and etc.), so pressing it is just like having one of those devices activate it.

LED Display	What you will see when you press the GREEN button with the above time settings.
○ ○ ●	The ON/OFF LED will flash for each second of delay time that was set. In this case three times. During this time the unit cannot be retriggered.
● ○ ● ○ ○ ●	Next, you will see the Seconds LED start flashing on and off. It will do this 12 times, once for each ½ second that it was set. The ON/OFF LED will remain on indicating that it is counting down a time in the ON state. During this time the unit cannot be retriggered.
● ○ ○ ○ ○ ○	Next, you will see the ON/OFF LED turn off and the Seconds LED will again, start flashing on and off. It will do this 30 times, once for each ½ second that it was set. The ON/OFF LED will remain off indicating that it is counting down a time in the OFF state. Again, during this time the timer cannot be retriggered.
○ ○ ○	Finally, all the LED's will turn off indicating that the unit is ready to be triggered and go through the whole routine all over again.

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Programming

If you want to make your own custom times for DELAY, ON-TIME, OFF-TIME, REPEAT, and OFF-TIME after REPEAT then follow the steps below. Although the steps to programming the PET-II may look a little daunting to the inexperienced user, after going through the programming routine once or twice it will become very easy and familiar to you.

Note: When pressing the green button to increment the SECONDS or MINUTES, if you hold the button down it will start to increment the count automatically (flashing the appropriate LED for each increment) until you release the button. Using this method will help you to quickly program in large values.

LED Display	PROGRAMMING INSTRUCTIONS
● ● ● ○ ○ ○ ● ● ● ○ ○ ○	**Initiating PROGRAM MODE** Apply battery power to the timer by placing batteries in the holder. Make sure to observe the correct polarity of the batteries. The circuit will simultaneously flash all the LEDs twice, indicating that the timer is initializing. While the circuit is going through its initialization, as described above, hold down the RED button. You will see the three LED's simultaneously flash once more (if you continue to hold down the RED button then they will continue to flash about once a second), at this point release the RED button. You will then be in the Delay Setting Mode.
○ ○ ●	**DELAY SETTING MODE** The On/Off Time LED will turn on.
○ ○ ●	If you wish to set an Initial Delay time, press the GREEN button. For each press of the GREEN button the ON/OFF LED will turn off briefly, ○ ○ ○. Each press of the GREEN button adds a ½ second delay. Press the RED button when finished to continue to the SECONDS-ON programming stage. OR Press the RED button to continue to the next programming stage (SECONDS-ON), if no initial DELAY

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	is desired.
● ○ ●	**SECONDS-ON PROGRAMMING STAGE** The Seconds LED will be on and the On/Off LED will be on.
● ○ ●	You should now be in the SECONDS-ON programming stage. This sets how many ½ second intervals your prop will be activated. Press the GREEN button for each ½ second of On-Time that is desired. The Seconds LED will turn off briefly, ○ ○ ●, with each accepted press. Press the RED button when finished to continue to the MINUTES-ON programming stage. OR Press the RED button to continue to the next programming stage (MINUTES ON), if no SECONDS ON is desired.
○ ● ●	**MINUTES-ON PROGRAMMING STAGE** The Minutes and the On/Off LEDs will be illuminated.
○ ● ●	You should now be in the MINUTES-ON programming stage. This sets how many minutes your prop will be activated. Press the GREEN button for each MINUTE of On-Time that is desired. The MINUTES LED will turn off, ○ ○ ●, with each accepted press. Press the RED button when finished to continue to the SECONDS-OFF programming stage. OR Press the RED button to continue to the next programming stage (SECONDS-OFF), if no MINUTES-ON is desired.
● ○ ○	**SECONDS-OFF PROGRAMMING STAGE** The Seconds LED will be the only one illuminated.

● ○ ○	You should now be in the SECONDS OFF programming stage. This sets how many ½ second intervals your prop will be off. Press the GREEN button for each ½ second interval of Off-Time that is desired. The SECONDS LED will turn off briefly, ○ ○ ○, with each accepted press. Press the RED button when finished to continue to the MINUTES-OFF programming stage. If you are going to use the repeat function (below), then this Off-Time becomes the time in-between repeating cycles of the On-Time you set earlier. OR Press the RED button to continue to the next programming stage (MINUTES OFF), if no SECONDS OFF is desired.
○ ● ○	**MINUTES-OFF PROGRAMMING STAGE** The Minutes LED will be the only one illuminated.
○ ● ○	You should now be in the MINUTES-OFF programming stage. This sets how many minutes your prop will be off. Press the GREEN button for each MINUTE of Off-Time that is desired. The MINUTES LED will turn off briefly, ○ ○ ○, with each accepted press. Press the RED button when finished. NOTE: If you are going to use the repeat function, then this Off-Time becomes the time in-between repeating cycles of the On-Time you set earlier. OR Press the RED button to continue to the next programming stage (REPEAT), if no MINUTES-OFF is desired.
● ● ●	**REPEAT PROGRAMMING STAGE** All the LEDs will be illuminated.

● ● ●	You should now be in the REPEAT programming stage. This sets how many times the PET-II, when triggered, should repeat the On-Time(s) and Off-Time(s) you set previously. Press the GREEN button for each time you would like to repeat the previously set On-Time(s) and Off-Time(s). The Seconds LED and the Minutes LED will simultaneously turn off for a brief moment, ○ ○ ●, with each accepted press. Press the RED button when finished to continue to the MINUTES OFF programming stage. OR Press the RED button to continue to the next programming stage (REPEAT SECONDS OFF), if no REPEAT function is desired.
● ○ ○	**REPEAT SECONDS-OFF PROGRAMMING MODE** The Seconds LED will be the only one illuminated.
● ○ ○	You should now be in the REPEAT SECONDS-OFF programming stage. This sets how many ½ second intervals your prop will be off after it goes through the REPEAT cycle. Press the GREEN button for each ½ second of Off-Time that is desired. The Seconds LED will turn off briefly, ○ ○ ○, with each accepted press. Press the RED button when finished to continue to the MINUTES OFF programming stage. Note: If you did not program a REPEAT value, then this setting will be ignored. OR Press the RED button to continue to the next programming stage (REPEAT MINUTES-OFF), if no REPEAT SECONDS-OFF is desired.
○ ● ○	**REPEAT MINUTES-OFF PROGRAMMING MODE** The Minutes LED will be the only one illuminated.

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○ ● ○	You should now be in the REPEAT MINUTES-OFF programming stage. This sets how many minutes your prop will be off after it goes through the REPEAT cycle. Press the GREEN button for each minute of REPEAT Of-Time that is desired. The Minutes LED will turn off briefly, ○ ○ ○, with each accepted press. Press the RED button to finish programming the PET-II. Note: If you did not program a REPEAT value, then this setting will be ignored. OR Press the RED button to continue to finish programming the PET-II.
● ● ● ○ ○ ○ ● ● ● ○ ○ ○	**FINAL STAGE OF PROGRAMMING** The unit will simultaneously flash all the LEDs twice (blink twice) to indicate that all the programming stages have been completed and the unit is now ready for operation.
	TESTING YOUR PROGRAM Press the GREEN button to trigger the PET-II. You should see the LEDs go through all the time settings that have just been programmed. You will probably also hear the relay click on and off as it goes through the On-Time(s) and Off-Time(s).

Hints & Troubleshooting:

Hints:

- For longer operation use a 'C' or 'D' size battery pack, such as the Radio Shack 270-390 or 270-396 respectively.
- Remove batteries before storing the PET-II for extended periods.
- If fuse is blown replace with a 10A 5mm fuse.

Troubleshooting:

- **Problem:** The PET-II has been programmed and appears to be running the program, but the relay doesn't engage to turn on my effect.

  Solution: First try disconnecting the battery pack, reconnecting it, and reprogramming the PET-II (Note: To ensure your safety, unplug the PET-II if it is currently plugged in.) If that doesn't work, try a new set of batteries.
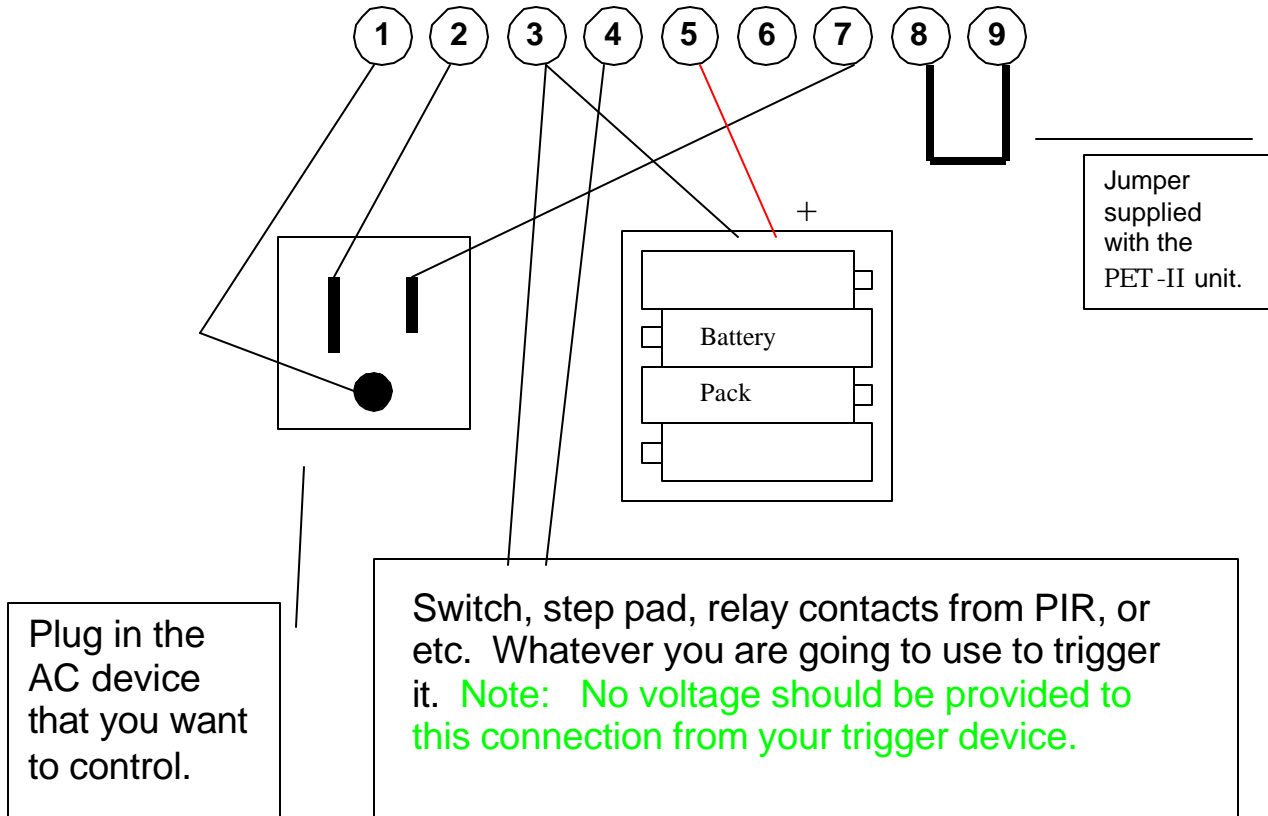

Optional Accessory Kit

- AC adapter to replace the battery pack on the PET II.

- 'Y' Power connecter so that the PET II and the AC adapter only use up one plug.

Available at:
www.cowlacious.com

Sample AC Application Connections:

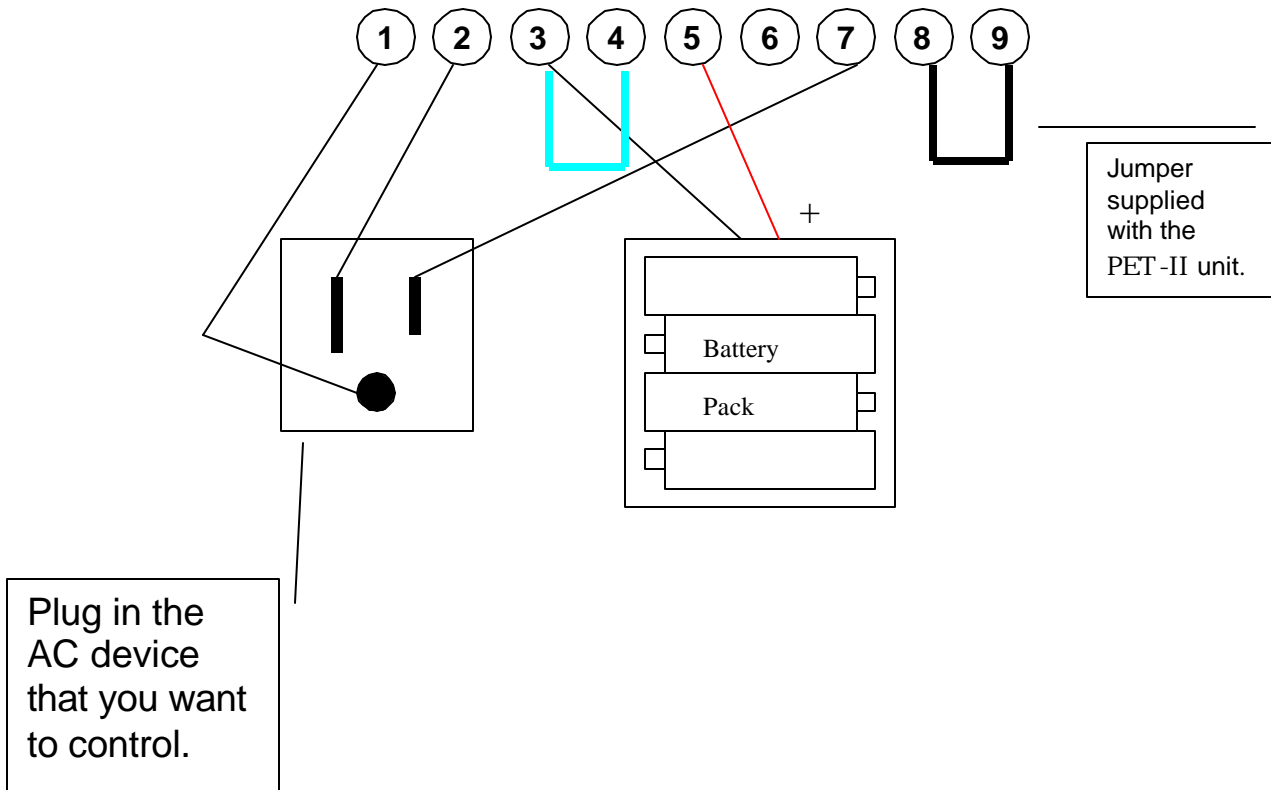**120V AC System with ground. Note: Crossing wires are not connected.**

Jumper supplied with the PET-II unit.

Battery Pack

+

Plug in the AC device that you want to control.

Switch, step pad, relay contacts from PIR, or etc. Whatever you are going to use to trigger it. Note: No voltage should be provided to this connection from your trigger device.

1 – AC Earth Ground
2 – AC Neutral or Common
3 – Battery and Triggering device Neutral or Common
4 – Triggering device input
5 – Battery +
6 – Normally Closed (NC) relay contact
7 – Normally Open (NO) relay contact
8 – Common (Pole) relay contact
9 – Hot or AC output voltage

The jumper across pins 8 & 9 provides 120VAC to the outlet through pin 7 when the device activated. When the device is not activated there will be 120VAC on pin 6 which could be used to power another device.

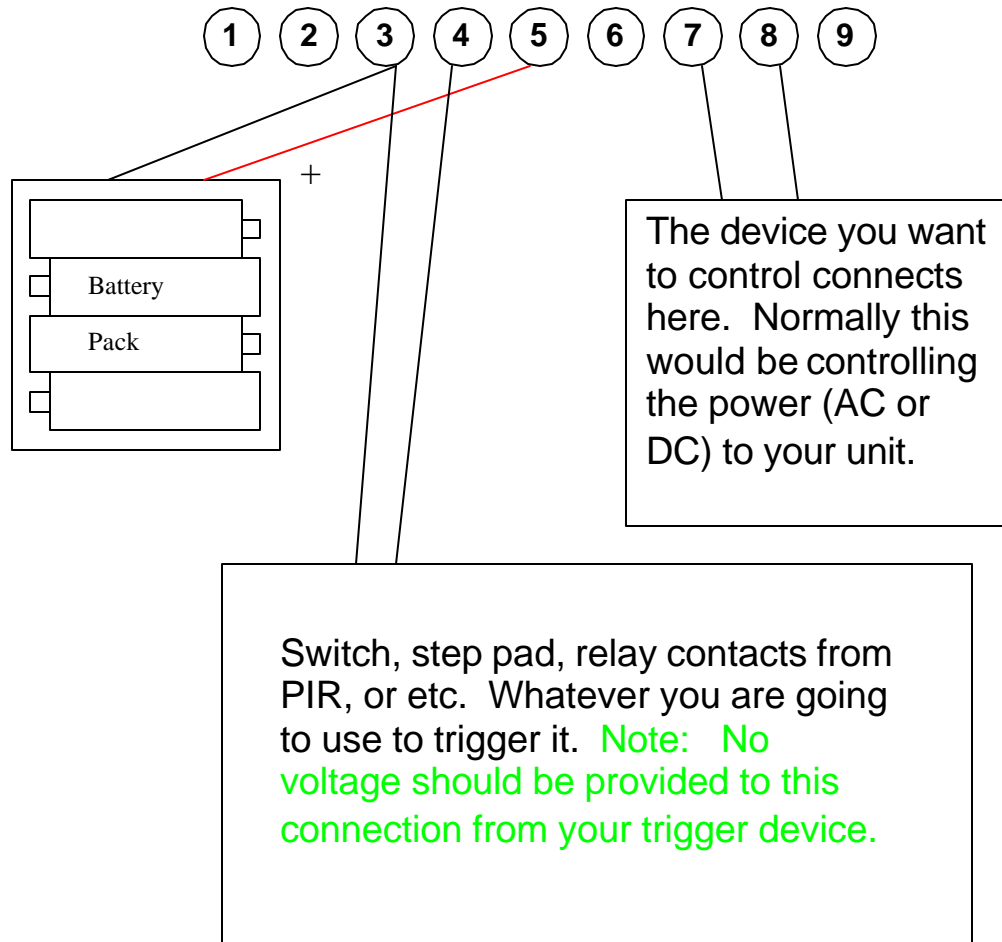# Sample Automatic Self Retriggerable AC Application Connections:

120V AC System with ground and the automatic self retriggerable jumper in place. DO NOT CONNECT the automatic self retriggerable jumper until after the unit has been programmed with the settings that you desire. Note: Crossing wires are not connected. Jumper across pins 3 & 4 should not be connected until after the unit has been programmed.

Jumper supplied with the PET-II unit.

+

Battery

Pack

Plug in the AC device that you want to control.

1 – AC Earth Ground
2 – AC Neutral or Common
3 – Battery and Triggering device Neutral or Common
4 – Triggering device input
5 – Battery +
6 – Normally Closed (NC) relay contact
7 – Normally Open (NO) relay contact
8 – Common (Pole) relay contact
9 – Hot or AC output voltage

Sample DC Application Connections:

System without 120V AC. This setup uses only the relay contacts to control your device. Note: Crossing wires are not connected.

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

+

Battery

Pack

The device you want to control connects here. Normally this would be controlling the power (AC or DC) to your unit.

Switch, step pad, relay contacts from PIR, or etc. Whatever you are going to use to trigger it. Note: No voltage should be provided to this connection from your trigger device.

1 – AC Earth Ground
2 – AC Neutral or Common
3 – Battery and Triggering device Neutral or Common
4 – Triggering device input
5 – Battery +
6 – Normally Closed (NC) relay contact
7 – Normally Open (NO) relay contact
8 – Common (Pole) relay contact
9 – Hot or AC output voltage

Features:

- **Safe DC Operation**
- **Direct access to Relay Contacts, one Normally Open and One Normally Closed, via terminals rated up to 250VAC & 28VDC @ 15Amps.**
- **When Set-up for AC Operation, either a two prong plug or a three prong plug (one with a ground plug) may be used.**
- **Easily programmable timing settings.**
- **Keeps program settings even when power has been disconnected.**
- **Initial delay from 0 to 255, ½ seconds intervals.**
- **On-time from ½ second up to 255 minutes & 127 seconds.**
- **Off time from ½ second up to 255 minutes & 127 seconds.**
- **Repeat the above timings up to 255 times without having to be retriggered.**
- **Delay after the repeat cycle is finished (unit cannot be retriggered during this time).**
- **Device can be set to retrigger itself for repeated automatic operation of effects.**
- **Only use the timing setting that you need.**
- **Fuse protected for your safety -- AC line has a 10A fuse.**