

PET-III-R2

2009

Programmable Effect Timer

Now with 2 SPDT Relays!



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-III in wet locations.
- This device is not recommended for outdoor locations unless it is properly protected.

Always unplug the PET-III 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-III) has been designed to meet the needs of the professional hunter at a cost that is appealing to the home hunter.

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-III 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:

- **Timer Interval Setting** – Allows the user to choose the time interval used for the On-Time and Off-Time settings. The choices are: 1, ½, ¼, 1/8, 1/16 seconds.
- **Initial Delay Setting.** This allows you to set some time between when the PET-III 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-III will not be able to be retriggered during this time.
- **On-Time Setting**—both in 1, ½, ¼, 1/8, 1/16 seconds and/or minute intervals. This is the time that the effect will actually operate. The PET-III will not be able to be retriggered during this time.
- **Off-Time Setting**—both in 1, ½, ¼, 1/8, 1/16 seconds 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-III 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:

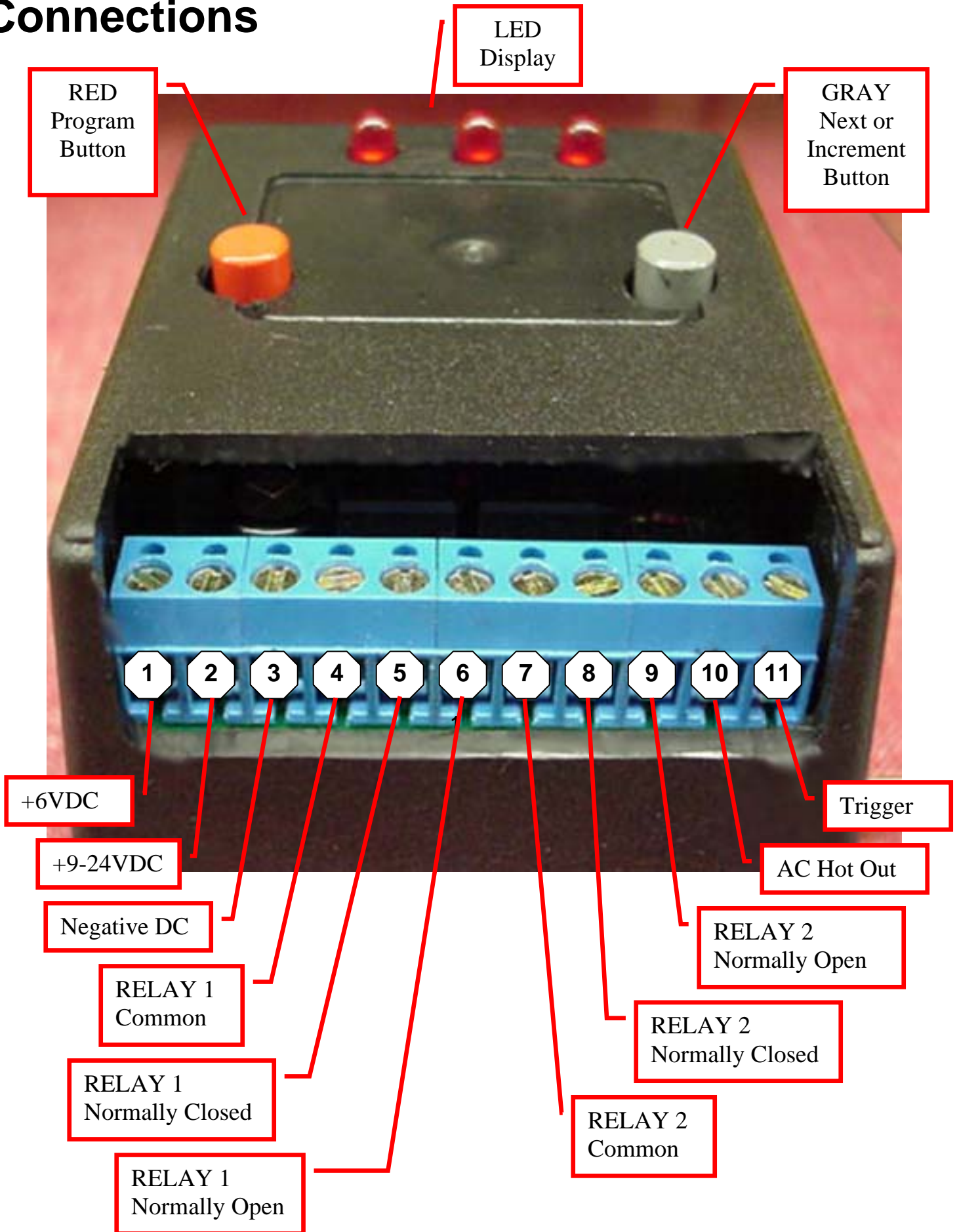
- Automatic Self Retriggerable operation. If you do not want to hook the device up to something to trigger it, you can hook it up so that it automatically continues to retrigger itself. It will go through any and all of the above settings and then start over, just as if someone had triggered it again.
- Multiple units can be hooked up to the same triggering device to provide more complicated animation of your props.
- It never loses its 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-III is triggered it will turn off the device connected to the normally closed contacts and turn on the device connected to the normally open contacts and vice-versa.
- The relay contacts can be used to switch AC or DC devices.
- The PET-III can be battery powered or you can use an optional wall transformer to power it off the AC line.

Please note:

Any type of switch may be used to trigger the PET-III, 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-III's trigger inputs cannot have any voltage on them at any time. The device you connect to the PET-III must never put voltage on trigger inputs of the PET-III. Please contact us if you have any questions about what can and cannot be used to trigger the PET-III.

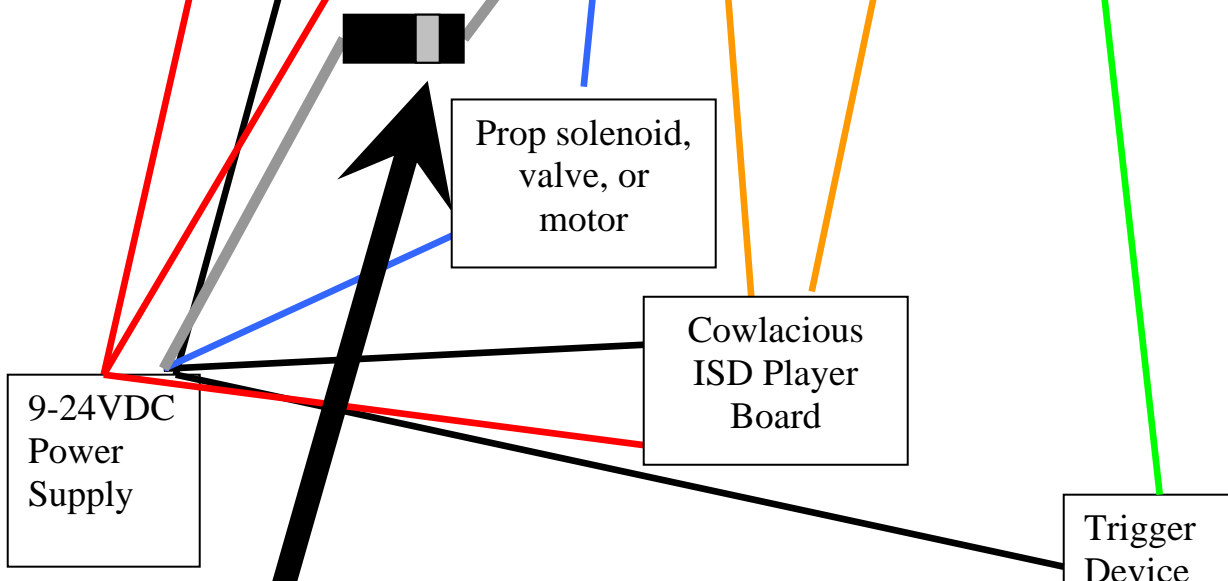
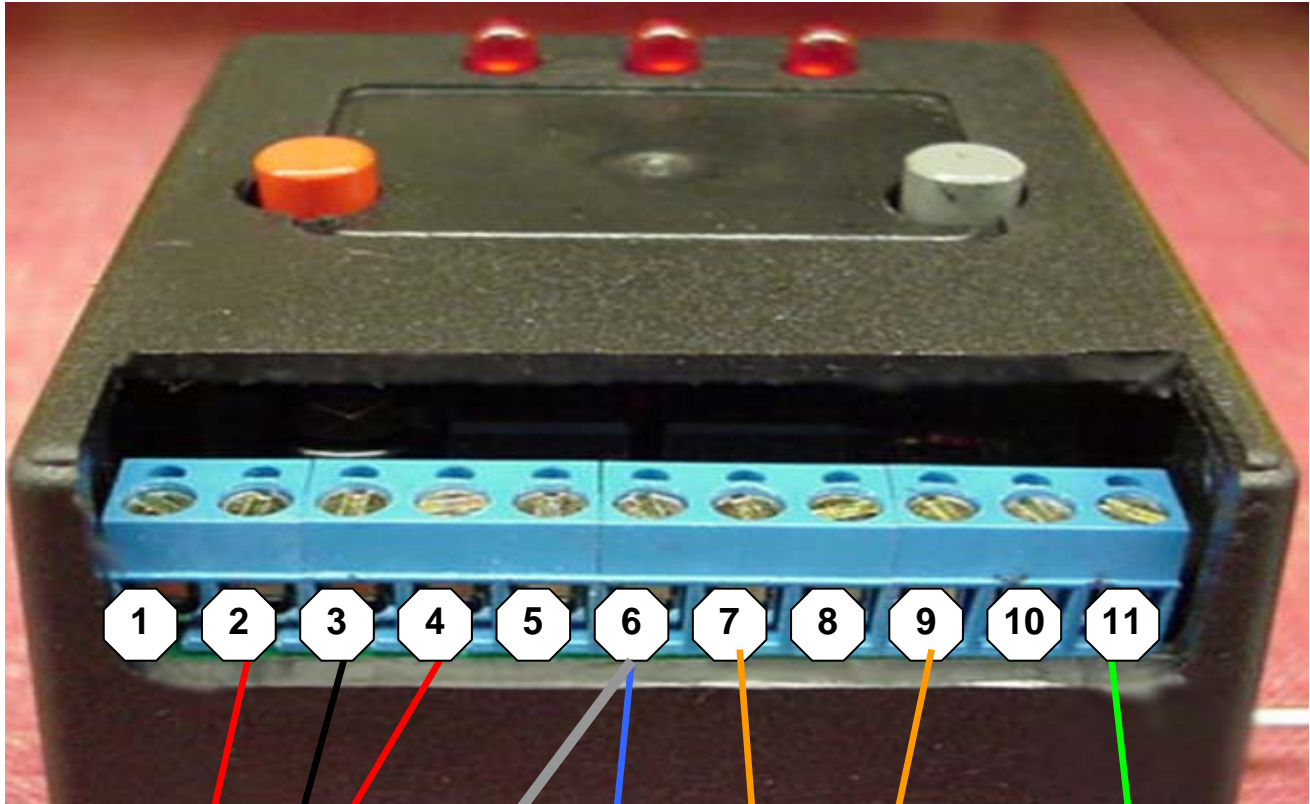
Please check out the SUPPORT section of our web site for simple instructions on converting a common motion sensor for use as a triggering device.

Location of Controls, Displays, & Connections



Sample Connection Diagram 1

When triggered the unit will turn on the prop and trigger the sound player.

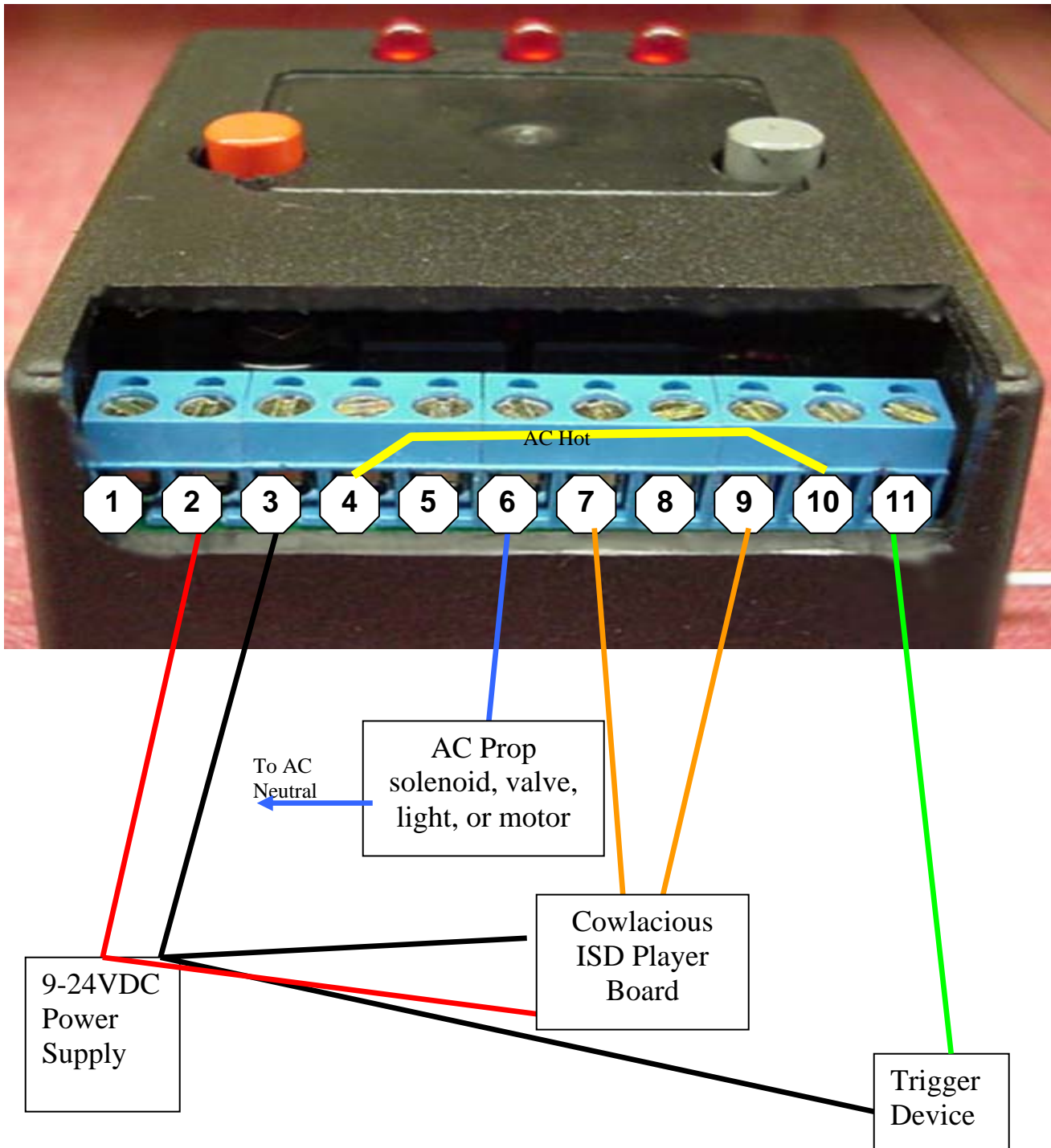


ALWAYS hook up the supplied optional diode as shown whenever you are using the relay to switch power to a **DC** solenoid, valve, or motor. Using the diode will prevent this unit from sending out spikes that could falsely trigger other timers in your haunt.

NEVER use the diode when the relay is used for switching **AC** solenoids, valves or motors.

Sample Connection Diagram 2

When triggered the unit will turn on power to the AC device and trigger the sound player.

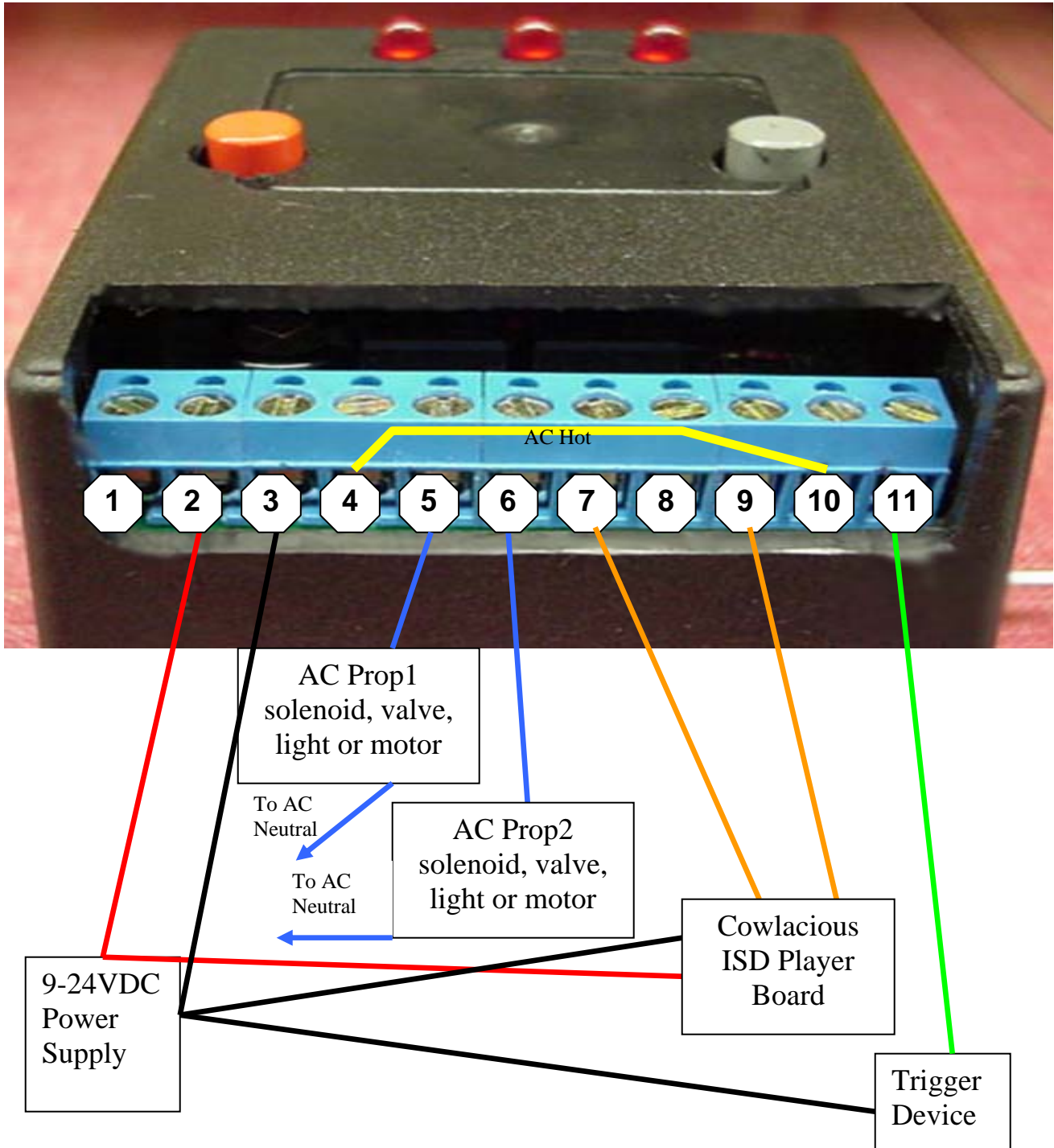


The WHITE wire coming out of the PET should be a Neutral wire when the PET is plugged into an AC outlet.

The GREEN wire is the GROUND.

Sample Connection Diagram 2

When triggered the unit will turn off power to the AC Prop1 and turn on power to AC prop2 and trigger the sound player.



The WHITE wire coming out of the PET should be a Neutral wire when the PET is plugged into an AC outlet.

The GREEN wire is the GROUND.

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-III to an AC outlet. Plug the device that you want to control into the PET-III's AC outlet. You can test the PET-III's operation by pressing the GRAY button. The GRAY 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 GRAY button with the above time settings.
□ □ μ	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.
μ □ μ □ □ μ	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.
μ □ □ □ □ □	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.

Programming

If you want to make your own custom times for DELAY, ON-TIME, OFF-TIME, REPEAT, and FINAL OFF-TIME then follow the steps below. Although the steps to programming the PET-III 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 GRAY 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
<p>μ μ μ □ □ □ μ μ μ □ □ □</p>	<p style="text-align: center;">Initiating PROGRAM MODE</p> <p>Apply power to the timer by placing batteries in the holder or by connecting a 9-24VDC supply. Make sure to observe the correct polarity of the supply when hooking it up. The circuit will simultaneously flash all the LEDs twice, indicating that the timer is initializing. After the circuit is has gone through its initialization, as described above, hold down the RED button until 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 On/Off Time Interval Mode.</p>
<p>μ □ □ μ μ μ □ □ □ μ μ μ □ □ □</p>	<p style="text-align: center;">On/Off Time Interval Mode</p> <p>Press the increment button to choose which time interval you would like to use for the On/Off Seconds Time Settings. Each press of the GRAY button will take you to the next timing option and change the LED display as follows:</p> <p>μ □ □ 1 second increments □ μ □ ½ second increments □ □ μ ¼ second increments □ μ μ 1/8 second increments μ μ μ 1/16 second increments</p> <p>Press the RED button when finished to continue to the Delay Setting Mode programming stage.</p> <p>You will see the three LED's simultaneously flash twice. You will then be in the Delay Setting Mode.</p>

□ □ μ	<p style="text-align: center;">DELAY SETTING MODE</p> <p>The On/Off Time LED will turn on.</p>
□ □ μ	<p>If you wish to set an Initial Delay time, press the GRAY button. For each press of the GRAY button the ON/OFF LED will turn off briefly, □ □. Each press of the GRAY button adds a ½ second delay.</p> <p>Press the RED button when finished to continue to the SECONDS-ON programming stage.</p> <p>OR</p> <p>Press the RED button to continue to the next programming stage (SECONDS-ON), if no initial DELAY is desired.</p>
μ □ μ	<p style="text-align: center;">SECONDS-ON PROGRAMMING STAGE</p> <p>The Seconds LED will be on and the On/Off LED will be on.</p>
μ □ μ	<p>You should now be in the SECONDS-ON programming stage. This sets how many ½ second intervals your prop will be activated. Press the GRAY button for each ½ second of On-Time that is desired. The Seconds LED will turn off briefly, □ □ μ, with each accepted press. Press the RED button when finished to continue to the MINUTES-ON programming stage.</p> <p>OR</p> <p>Press the RED button to continue to the next programming stage (MINUTES ON), if no SECONDS ON is desired.</p>
□ μ μ	<p style="text-align: center;">MINUTES-ON PROGRAMMING STAGE</p> <p>The Minutes and the On/Off LEDs will be illuminated.</p>
□ μ μ	<p>You should now be in the MINUTES-ON programming stage. This sets how many minutes your prop will be activated. Press the GRAY button for each MINUTE of On-Time that is desired. The MINUTES LED will turn off, □ □ μ, with each accepted press. Press the RED button when finished to continue to the SECONDS-OFF programming stage.</p> <p>OR</p> <p>Press the RED button to continue to the next programming stage (SECONDS-OFF), if no MINUTES-ON is desired.</p>
μ □ □	<p style="text-align: center;">SECONDS-OFF PROGRAMMING STAGE</p> <p>The Seconds LED will be the only one illuminated.</p>

<p>μ □ □</p>	<p>You should now be in the SECONDS OFF programming stage. This sets how many ½ second intervals your prop will be off. Press the GRAY 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.</p> <p>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.</p> <p>OR</p> <p>Press the RED button to continue to the next programming stage (MINUTES OFF), if no SECONDS OFF is desired.</p>
<p>□ μ □</p>	<p style="text-align: center;">MINUTES-OFF PROGRAMMING STAGE</p> <p>The Minutes LED will be the only one illuminated.</p>
<p>□ μ □</p>	<p>You should now be in the MINUTES-OFF programming stage. This sets how many minutes your prop will be off. Press the GRAY 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.</p> <p>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.</p> <p>OR</p> <p>Press the RED button to continue to the next programming stage (REPEAT), if no MINUTES-OFF is desired.</p>
<p>μ μ μ</p>	<p style="text-align: center;">REPEAT PROGRAMMING STAGE</p> <p>All the LEDs will be illuminated.</p>
<p>μ μ μ</p>	<p>You should now be in the REPEAT programming stage. This sets how many times the PET-III, when triggered, should repeat the On-Time(s) and Off-Time(s) you set previously. Press the GRAY 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, □ □ μ, with each accepted press. Press the RED button when finished to continue to the MINUTES OFF programming stage.</p> <p>OR</p> <p>Press the RED button to continue to the next programming stage (REPEAT SECONDS OFF), if no REPEAT function is desired.</p>

<p>μ □ □</p>	<p style="text-align: center;">REPEAT SECONDS-OFF PROGRAMMING MODE</p> <p>The Seconds LED will be the only one illuminated.</p>
<p>μ □ □</p>	<p>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 GRAY button for each ½ second of Off-Time that is desired. The Seconds LED will turn off briefly, □ □ □, with each accepted press.</p> <p>Press the RED button when finished to continue to the MINUTES OFF programming stage.</p> <p>Note: If you did not program a REPEAT value, then this setting will be ignored.</p> <p>OR</p> <p>Press the RED button to continue to the next programming stage (REPEAT MINUTES-OFF), if no REPEAT SECONDS-OFF is desired.</p>
<p>□ μ □</p>	<p style="text-align: center;">REPEAT MINUTES-OFF PROGRAMMING MODE</p> <p>The Minutes LED will be the only one illuminated.</p>
<p>□ μ □</p>	<p>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 GRAY button for each minute of REPEAT Of-Time that is desired. The Minutes LED will turn off briefly, □ □ □, with each accepted press.</p> <p>Press the RED button to finish programming the PET-II.</p> <p>Note: If you did not program a REPEAT value, then this setting will be ignored.</p> <p>OR</p> <p>Press the RED button to continue to finish programming the PET-III.</p>
<p>μ μ μ</p> <p>□ □ □</p> <p>μ μ μ</p> <p>□ □ □</p>	<p style="text-align: center;">FINAL STAGE OF PROGRAMMING</p> <p>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.</p>
	<p style="text-align: center;">TESTING YOUR PROGRAM</p> <p>Press the GRAY button to trigger the PET-III. 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).</p>

Hints:

- For longer operation using a batteries for a supply 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-III for extended periods.

Troubleshooting:

- **Problem:** The PET-III 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 and reconnecting it to make sure you have a good connection. (Note: To ensure your safety, unplug the PET-III if it is currently plugged in.) If that doesn't work, try a new set of batteries.

- **Problem:** The PET-III seems to be causing other timers to trigger whenever it goes off. I am switching a DC device with this PET-III

Solution: Please see the sample connection diagram and properly attach the supplied diode as shown.

Accessories:



Optional Accessory Kit

- AC adapter to replace the battery pack on the PET III.
- 'Y' Power connector so that the PET II and the AC adapter only use up one plug.

Available at:
www.cowlacious.com

Features:

- **Safe DC Operation**
- **Direct access to Relay Contacts, one Normally Open and One Normally Closed, via terminals rated up to 250VAC & 28VDC @ 8 Amps.**
- **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, 1/2 seconds intervals.**
- **On-time from 1, 1/2, 1/4, 1/8, or 1/16 second(s) up to 255 minutes & 255 seconds.**
- **Off time from 1, 1/2, 1/4, 1/8, or 1/16 second(s) to 255 minutes & 255 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.**

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