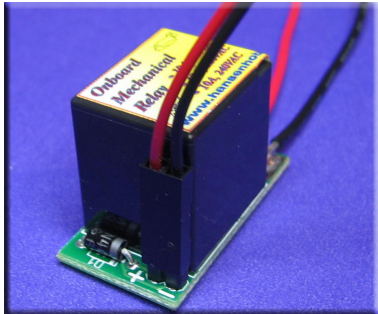


Thanks for purchasing this *Onboard Mechanical Relay by Hansen Hobbies!* This device is designed to work with our *Nano Electronic Receiver Switch (NERS)*, and will also work with our *MERS* and *ERS Kit*. Using a small amount of current (~70mA) to power an electromagnet, the *Relay* mechanically flips an internal switch which can handle up to 10A at 240VAC. This means you can use the 120VAC power from the wall outlet to power a toaster, or 1.5V from a single NiCad cell to power your glow plug.

Instructions:

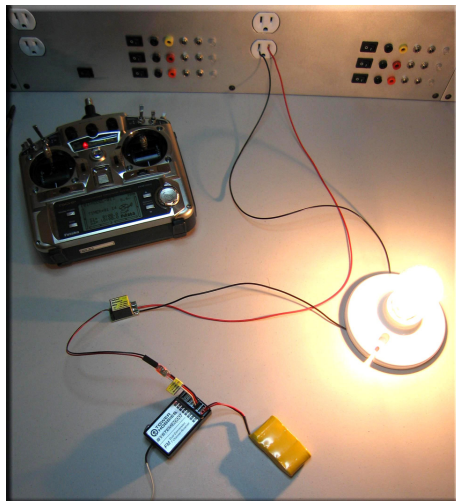
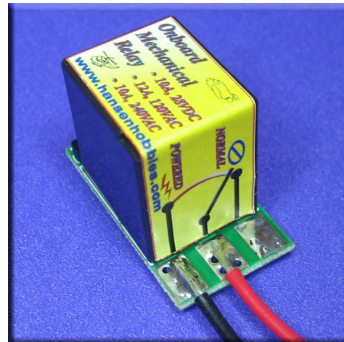
Hooking up the *Relay* is easy, especially if you're using our *NERS*. One side of the relay has two pins spaced at .1" (the same as all servo connectors) marked "+" and "-" - these pins are for the coil power. By applying 3.5 to 6.5V to these pins the electromagnet will energize and the switch inside the relay will flip. If you're using the *NERS* then the connection can be made directly as shown below. Connectors are included to make a wiring harness - [Instructions for crimping](#) these connectors can be found on our web site, where you can also purchase more connectors. Make sure positive voltage is applied to the "+" pin, otherwise you may damage the *Relay* and/or the *NERS*.



The other end of the *Relay* has three solder tabs for soldering wires for your power supply and device. There are three tabs because this is a single pole, dual throw (SPDT) switch. The diagram on the side of the relay shows how the connections are

made. The center tab connects to a reed inside the relay which normally makes contact with the right tab. When power is applied to the coil, however, the reed flips over to the left tab. For most applications you'll ignore the right tab and just use the other two. If you're using the relay to cut power to your engine ignition, then you may prefer the switch normally be closed, in which case you can use the middle and right tabs. You could also use all three tabs to toggle power between two devices.

From here just wire your circuit as you would if the *Relay* were a light switch. Two examples are shown below. On the left our *NERS* is used with the *Relay* to switch 120V power to a light bulb. On the right the *NERS* is used with the *Relay* to switch 9V power to a buzzer.



Notes:

Make sure the you're using suitably sized wire for the current your device requires. If you're using high voltages for your project please exercise caution, choose suitably rated wire, and protect the finished circuit with heat shrink or tape.

