

SPECIFICATIONS:

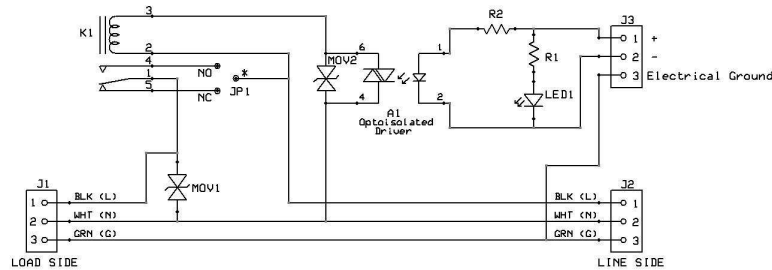
AC input: NEMA 5-15P Plug, standard 120vac with ground.
AC output: NEMA 5-15R Receptacle, standard 120vac with ground.
Switching capacity: 15amps @ 120vac, normally open (can be rewired for normally closed operation).
Life expectancy: 100,000 operations @ 15amps, 125vac, resistive
DC input: 3-12vdc 3-30ma, terminal block accepts #14-30 AWG wire.
Operate times: 15 ms max actuate, 10 ms max release.
DC to ac circuit isolation: 5300Vrms
Indicator: LED indicates when control signal is present.
Protection: AC side protected with 150vac MOV. DC side is transient free.
Mounting: Two #6 screws or free standing

NO
 NC

PowerSwitch Tail II

PN 80136, US version

An isolated dc actuated power cord (NO or NC) for controlling power to 120vac appliances with a microcontroller.



Jumper wire JP1 is between NO and * for normally open operation or between NC and * for normally closed operation. Soldering is required to rewire the unit.

For technical support, please contact us at support@powerswitchtail.com.
For more product information, please visit <http://www.powerswitchtail.com>.

Other actuating voltage ranges and units optimized for minimum actuating signal power are available. Please contact us at sales@powerswitchtail.com.

Our liability is limited to the purchase price of this product only. By using this product you agree that PowerSwitchTail.com, LLC cannot be held liable for any damages or injuries resulting from use or repairs.

- No exposed 120vac voltages and no dangerous 120vac wiring required. Can be installed by non-technical users.
- Plugs into standard 120vac 3-prong household outlets, power strips, and extension cords. Easily inserts between power source and corded electrical devices.
- Eliminates the exposure of hazardous voltages in classrooms, in laboratories, and on industrial and DIY development workbenches.
- Can be set (via jumper wire) for either normally open or normally closed operation.
- Switches up to 15 amps with a 3-12vdc (3-30ma) control signal.
- Connects directly to any microcontroller without the need for a driver circuit. Draws as little as 3ma @ 3.0 volts.
- Two-wire control signal connects to screw type terminal block (14-30 AWG).
- 5300Vrms isolation between mains circuit and signal connection.
- LED indicator shows status of control signal.
- No phantom power when relay is de-energized.
- Output devices may be 3-prong or 2-prong appliances or lights.
- Indoor use only.

Hookup Instructions:

1. The PowerSwitch Tail II (PST II) requires an actuating signal between 3vdc (3ma) to 12vdc (30ma) to reliably energize the internal relay. Most microcontrollers will operate the PST II directly without the need for an external driver circuit.
2. The PST II is wired for either normally open (NO) or normally closed (NC) operation. See the check box above to see how this unit is wired. To change the configuration, refer to Note 2 below.

3. Normally open (NO) means when the PST II is plugged into a live voltage source, no voltage will appear on the receptacle side of the PST II unless there is an actuating control signal. Applying a control signal will then close the relay and connect the mains voltage to the receptacle cord.
4. Normally closed (NC) operation means that when the PST II is plugged into a live voltage source, the live voltage will appear on the receptacle side of the PST II without an actuating control signal. The application of the actuating signal will disconnect the voltage from the receptacle side of the PST II. Use this mode when the load or powered device is more often on (powered) than off (not powered).
5. You can change between the NO and NC configurations by moving a wire jumper. Soldering required. See note 2 below.
6. Connect the control signal to the terminal block using a small screwdriver to access the screws from the top of the PST II. If necessary, turn the screws CCW to open the terminal contacts. Strip ¼-inch of insulation from the signal wires and insert into the terminal block contacts through the holes on the side of the PST II. Connect the plus side to terminal 1 (+in) and the negative side to terminal 2 (-in). Tighten the screws and verify the contacts firmly grip the signal wires. Any size wire #16 AWG or smaller may be used. (Standard CAT3/5 #26 AWG twisted pair wire works well.)
7. Terminal 3 (Ground) is connected internally to the ac side electrical safety ground (the green conductor) and can be used if needed.
8. Energize the control signal and verify the LED indicator lights up. If not reverse the signal leads.
9. CAUTION: If the PST II is set for normally closed (NC) operation, before plugging the load into the PST II receptacle make sure it is safe to energize the load as power will be applied immediately to the load.
10. Now plug the PST II into the AC power source. Apply the control signal to actuate the internal relay. You should hear a clicking sound. Note the LED shows when a control signal is present and does not indicate whether or not power is present at the PST II receptacle.

Notes:

1. The plug side of the PST II must be plugged into a source of power for the internal relay to operate.
2. Wire jumper JP1 is wired as follows: For normally open (NO) operation (relay open and no power at the receptacle when no control signal is applied), wire jumper between "*" and "NO" pads. For normally closed (NC) operation (relay closed and power at the receptacle when no control signal is applied), wire jumper between "*" and "NC" pads.

and "NC" pads. Use #16 AWG or larger wire (smaller gauge number). Soldering is required to rewire the PST II. We recommend a 30-40 watt tip.

Troubleshooting:

You can test your PST II by performing the following:

1. With the PST II not plugged in, create a control signal source by connecting two 1.5v batteries (any size) in series (the + side of one to the - side of the other). This will give you an approximate 3.0 volt dc source. Or you can use another power source that you know can output at least 3 ma @ 3.0 volts.
2. Connect the + (positive) side of the power source to terminal 1 of the PST II and the - (minus) to terminal 2. The LED on the PST II should go on. If it does not, reverse the leads on terminals 1 and 2.
3. Plug the PST II into a known good power outlet. You need not connect a device or load to the PST II outlet cord. You should hear a "click" indicating the relay is actuated.
4. Remove the control signal (battery or power source) and plug a device or load into the PST II outlet cord. Then reapply the control signal.
5. You should again hear a "click" and power should be applied to the device or load (assuming the NO configuration). Check to be sure any power switch on the device or load is turned on.

Also here is a link that you might find helpful:

<http://techvalleyprojects.blogspot.com/2012/04/powerswitch-tail-ii-and-arduino.html>