



**PRODUCT NAME** : Toggle Switch

**PRICE** : Rs 30.00

**SKU** : RM0766



## DESCRIPTION

A simple way to think of this switch is imagining 2 SPDT switches side by side with the 'handles' attached to each other. Perhaps the most popular use for this switch is 'phase or polarity reversal'. So, how does the DPDT switch accomplish this? First, *you* have to wire the 2 'top' and 2 'bottom' terminals in a 'criss-cross' fashion. The top 2 terminals become the input and the middle two terminals become the output. Let pin1 is X, pin2 is Z, pin5 is Y and pin6 is W now, W & Y are connected, as are X & Z. The polarity is maintained because the input and output are directly connected

Now let's see what happens when the switch is in the 'down' position (right diagram). The + input goes from the 'W' terminal, down to the lower right and then up to the 'Z' terminal. The negative input goes from the 'X' terminal and out through the 'Y' terminal. See what has happened? With one flip of a switch, polarity has been reversed. What applications does this have? For one thing, electric guitar players use this type of switch to put one pickup out of phase with the other, producing a thin, 'squawcky', 'inside-out' kind of sound. In the 'old days' before 3 prong plugs, power switches on some electrical devices used this switching arrangement to switch polarity in case the plug was in the outlet the "wrong way".

Another important (though not very common) use is to put this switch between 3-way switches so that the same light may be switched from *many* different locations. Referring to Diagram 4, if A & B and E & F were connected, the bulb would be off. But now think of the wires going from A to D and C to F. If their connections were reversed, ( A to F, C to D), the light bulb would turn on again. So, how would we be able to reverse the polarity of these 2 wires? By using the polarity reversing switch