

"Throws" are how many "on" states the switch has - as you said. We'll assume you have a single pole switch here, because upping the number of poles just adds more rows of lugs on the switch.

SPST - two lugs. In one position (ON), they're connected, in the other they're not connected.

[1] [2]

SPDT - three lugs. In one position the middle lug [2] is connected to [1], in the other position the middle lug is connected to the [3].

[1] [2] [3]

SP3T would have 4 lugs. First position connects [1] to [2], second position connects [1] to [3], third position connects [1] to [4]

[1]
[2] [3] [4]

To complicate things, you then occasionally get things like ON-OFF-ON switches - still called an SPDT.

[1] [2] [3]

First position connects [2] to [1], second position leaves everything unconnected, third position connects [2] to [3]

You can also get DPDT ON-ON-ON switches, which usually work like this:

[1] [2] [3]
[4] [5] [6]

First position, [2] is connected to [1] and [5] is connected to [4]. Second position, [2] is connected to [1] and [5] is connected to [6]. Third position, [2] is connected to [3] and [5] is connected to [6]. Useful for series/parallel/split switches for humbuckers.