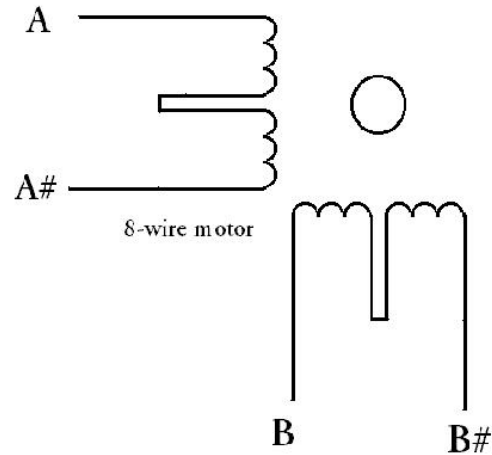
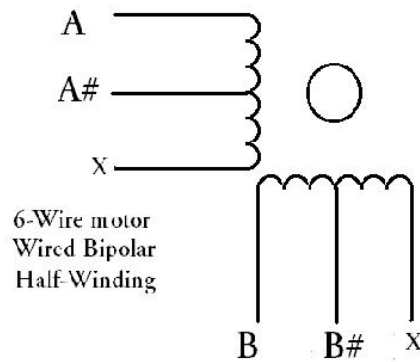


**Bipolar Parallel**



**Bipolar Series**

A 6-wire motor can be wired bipolar series or bipolar half-winding. Bipolar series can give full torque at lower step rates. Bipolar half-winding can give better torque performance at higher speeds.

8-wire motors can be wired bipolar series, or bipolar parallel. Bipolar parallel will give better torque at higher speeds, but requires twice the current as bipolar series to achieve the same torque. Bipolar series can achieve high torque at slow speeds but because of the increased inductance takes longer to attain full torque. Thus high speed torque can be lacking with bipolar series.