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FACULTY OF ENGINEERING & TECHNOLOGY

Electrical Machine-1

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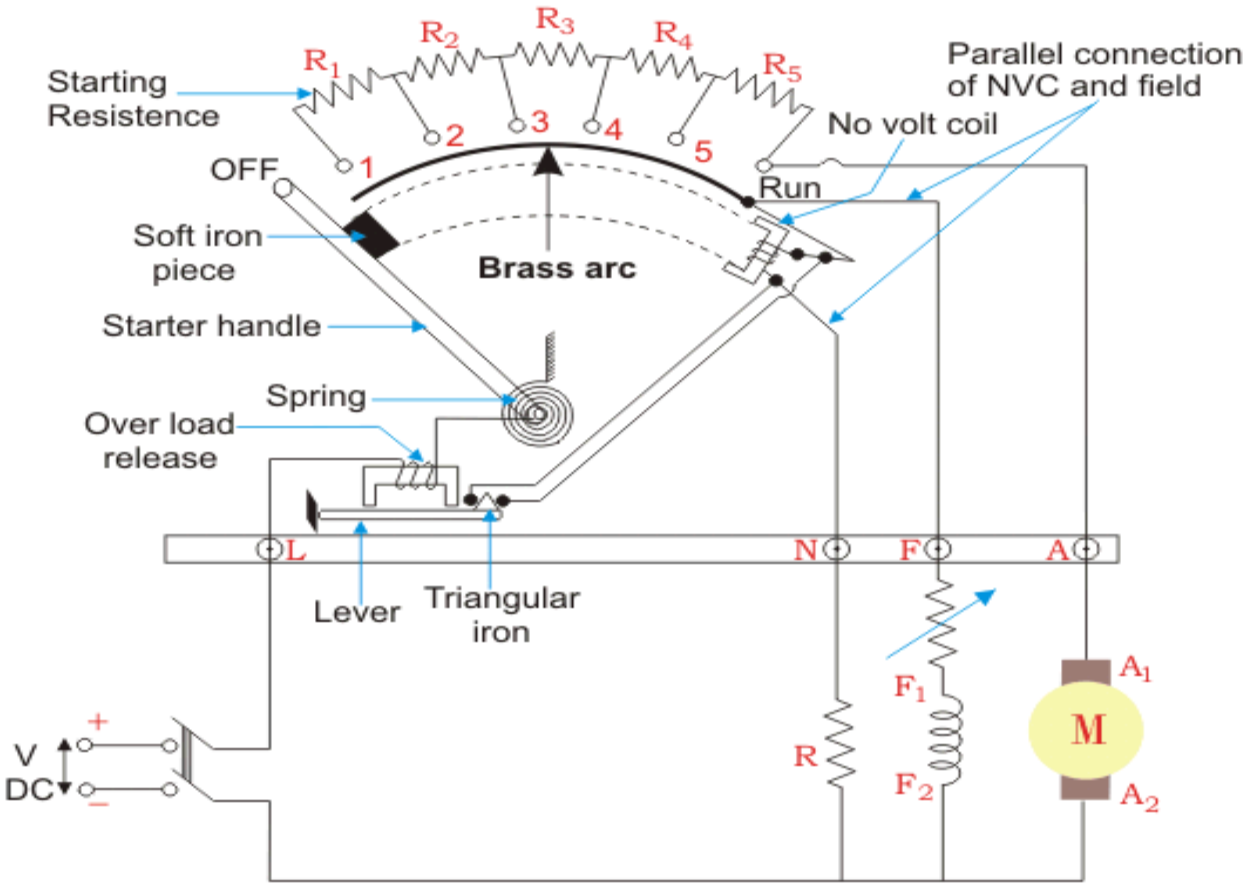
Construction and Operation of Four Point Starter

A 4 point starter as the name suggests has 4 main operational points, namely

- 'L' Line terminal (Connected to positive of supply.)
- 'A' Armature terminal (Connected to the armature winding.)
- 'F' Field terminal. (Connected to the field winding.)
- Like in the case of the 3 point starter, and in addition to it there is,
- A 4th point N (Connected to the No Voltage Coil NVC)

The remarkable difference in case of a 4 point starter is that the No Voltage Coil is connected independently across the supply through the fourth terminal called 'N' in addition to the 'L', 'F' and 'A'. As a direct consequence of that, any change in the field supply current does not bring about any difference in the performance of the NVC. Thus it must be ensured that no voltage coil always produce a force which is strong enough to hold the handle in its 'RUN' position, against the force of the spring, under all the operational conditions. Such a current is adjusted through No Voltage Coil with the help of fixed resistance R connected in series with the NVC using fourth point 'N' as shown in the figure above.

The contact points of these sections are called studs and are shown separately as OFF, 1, 2, 3, 4, 5, RUN, over which the handle is free to be maneuvered manually to regulate the starting current with gathering speed.



Four Point Starter