BEFORE THE DEVICE IS TURNED ON:

\[ V_{\text{CAP}} = 0 \text{ V} \quad S = \text{HI} \quad R = \text{LO} \quad \text{THEREFORE: } Q = \text{LO} \]

DURING CHARGING:

\[ V_{\text{CAP}} > 5 \text{ V} \quad S = \text{LO} \quad R = \text{LO} \quad \text{THEREFORE: } Q = \text{PREVIOUS} \]
\[ V_{\text{CAP}} > 10 \text{ V} \quad S = \text{LO} \quad R = \text{HI} \quad \text{THEREFORE: } Q = \text{HI}, \text{ WHICH TURNS ON THE DISCHARGE TRANSISTOR.} \]

DURING DISCHARGING:

\[ V_{\text{CAP}} < 10 \text{ V} \quad S = \text{LO} \quad R = \text{LO} \quad \text{THEREFORE: } Q = \text{PREVIOUS} \]
\[ V_{\text{CAP}} < 5 \text{ V} \quad S = \text{HI} \quad R = \text{LO} \quad \text{THEREFORE: } Q = \text{LO}, \text{ WHICH TURNS OFF THE DISCHARGE TRANSISTOR, AND THE CHARGING CYCLE BEGINS AGAIN.} \]