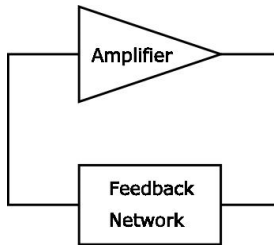


How to depict the operation principle of the oscillator circuit?

Crystal controlled oscillators may be considered as consisting of an amplifier and a feedback network that selects a part of the amplifier output and returns it to the amplifier input. A generalized depiction of such a circuit is shown below.



In order for an oscillator circuit to operate, two conditions must be met:

- (A) The loop power gain must be equal to unity.
- (B) The loop phase shift must be equal to $0, 2\pi, 4\pi$, etc. radians