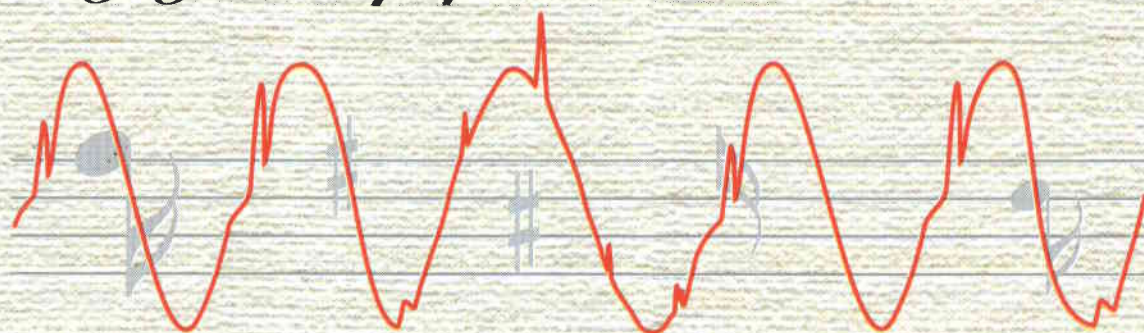
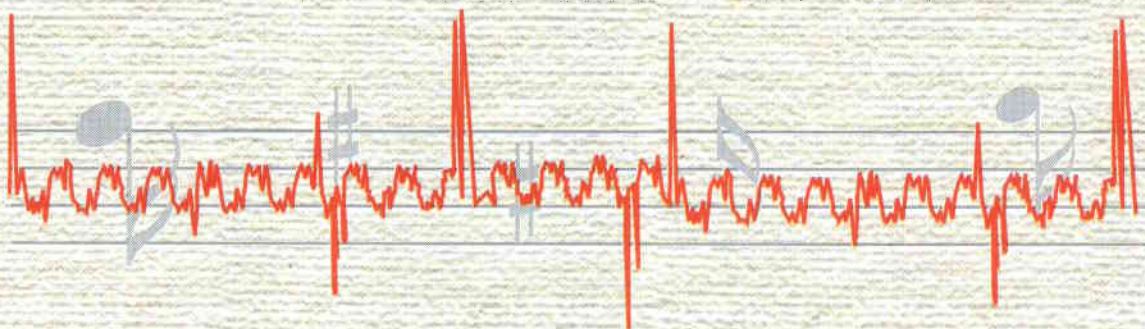


If your Equipment is the Orchestra



and Production, the Symphony.



Its about Time you eliminated the Noise.



*The Neel Noise Cut-off Transformer,
eliminates noise, completely.*

Noise Cut - off Transformer

The Electrical Noises are generated due to :

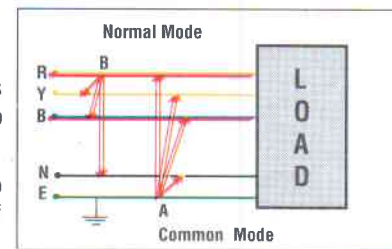
- Switching of electrical utilities like Capacitors, MCCB's, ACB's... etc. Larger the inductance of the system and larger the current change during switching, larger the magnitude of electrical noise.
- The inductive loads like big Motors, Compressors, Overhead Cranes, Elevators, Presses etc. also generates substantial switching noise.
- Switching equipments like Invertors, Converters, SMPS etc., generate electrical noise due to switching of Thyristors, Transistors, Relays etc.
- Welding systems pollutes earthing systems and add notches in the wave form, generating harmonics.
- Lightening, precipitation of the static charges and electrical discharges in the atmosphere are the natural cause of generation of various electrical noises.

Types

Electrical Noise can be classified into :

A) Common Mode : Occurs between ground and the current carrying conductors including neutral. Being high frequency noises, they don't get attenuated due to distance and therefore reach farther. They are the common source of troubles.

B) Normal Mode : Occurs between two current carrying conductors like line to neutral or line to line. These are generated and created due to switching actions of utilities & equipment. They are generally of high magnitude, causing device failures.



Effects

- Electrical noises are observed to occur over a wide band of frequency ranging from 1 KHz to 100 MHz and above. In magnitude also observed to be as high as 4-6000 Volts on 3 phase supply system.
- The high frequency noise can interfere with digital electronic equipments causing untraceable data entry, change of programme, loss of memory, erratic behaviour etc.
- The high voltage spikes can cause the failure of Thyristors or Transistor, Micro Processors and other sensitive devices.
- The radiated noise can interfere in operation of remote control equipment like Cranes, Digital controls or Telecommunication Equipment.

Construction

- Noise Cut-off Transformers are designed with split winding construction & bifilar Connections to reduce over all Capacitance of the winding.
- The use of high insulating materials and special shielding techniques result in attenuating common mode and minimising transverse mode noise.
- The core and its magnetic properties are properly selected to exhibit sufficient leakage inductance to provide greatest possible attenuation of normal mode power line noise, consistent with the Transfer of Fundamental power frequency. But all higher frequencies are blocked.
- The use of Faraday's Unique Box shielding and special shielding techniques totally block the transfer of electric noise even by static charge, by way of proximity or R. F. Noises.
- Due to better regulation, it does not generate common mode impedance coupling effect.

