* Power Source with no loss in load current

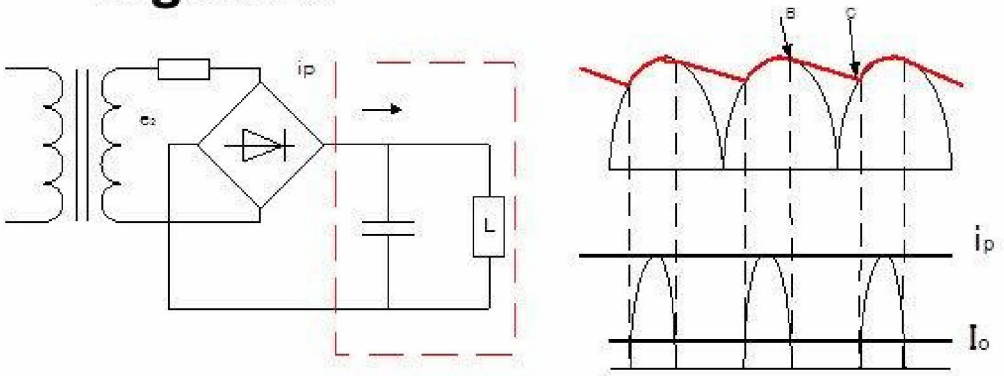
* Capacitor Input circuit generates about 10% of load current loss, twice in every cycle.

* Critical Defect in Capacitor input Circuit

* There exists time-zone for the current not flowing despite showing voltage on the waveform in voltmeter and oscilloscope.
* There exists time-zone for the current not flowing despite showing voltage on the waveform in voltmeter and oscilloscope.

*** In Ohm's Law, I=V/R　This V shows a potential difference.**

- *** The waveform in oscilloscope does not distinguish Electrical Potential from Potential Difference, displaying together.**



When red part is connected to voltage V(potential difference) only according to Ohm's Law, you will get I＝V／R, potential difference (voltage) as shown in Ohm's Law. If you take a look at voltage waveform, at the time of switching over, you will understand that the current does not flow at 0 V of potential difference.

● When a potential on Di side is lower than capacitor potential, capacitor potential is Potential Difference (V) in every way. (B→C)
● When Potential on Di side rises ,with Potential becoming the same potential, there is no potential difference (V) in closed circuit, with no flow of current. (C point)
● Red Waveform　Waveform displayed in oscilloscope

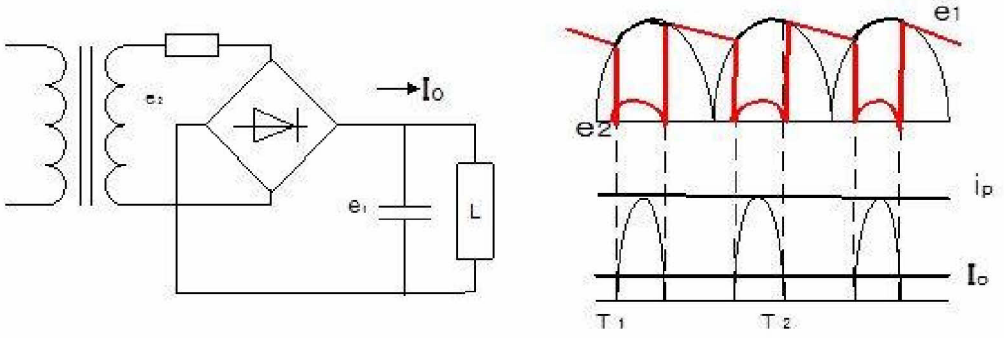


Fig.1—Capacitor Input Rectifying Circuit and Voltage & Current Waveform

● The reality (Red Waveform) is that the waveform which extracts Voltage (Potential Difference) only.
● When load current is cut off, rectifying circuit becomes the cause of noise generation.

Second Generation Series Power Source＋CPM

* The second generation power source compensates for 10% of loss current.
* The noise generated in rectifying circuit dis-appears..

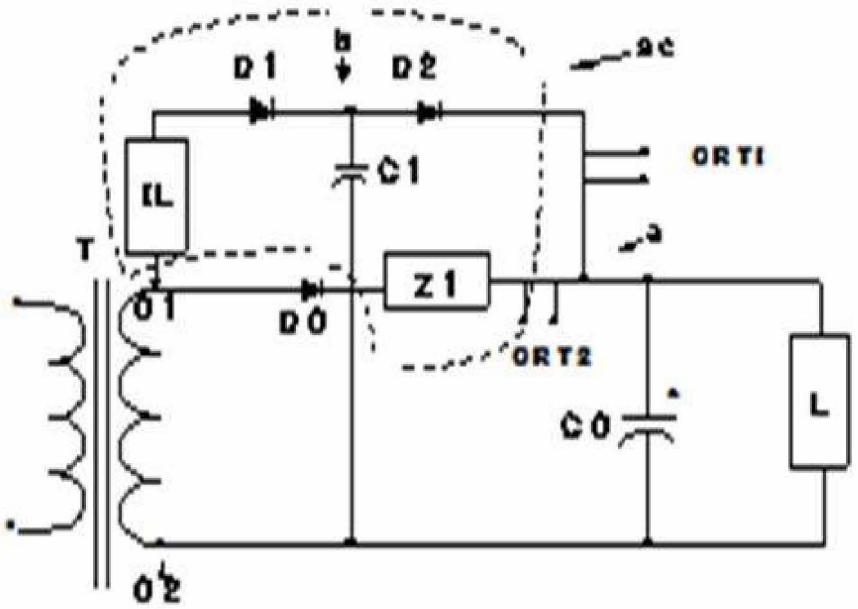
Result

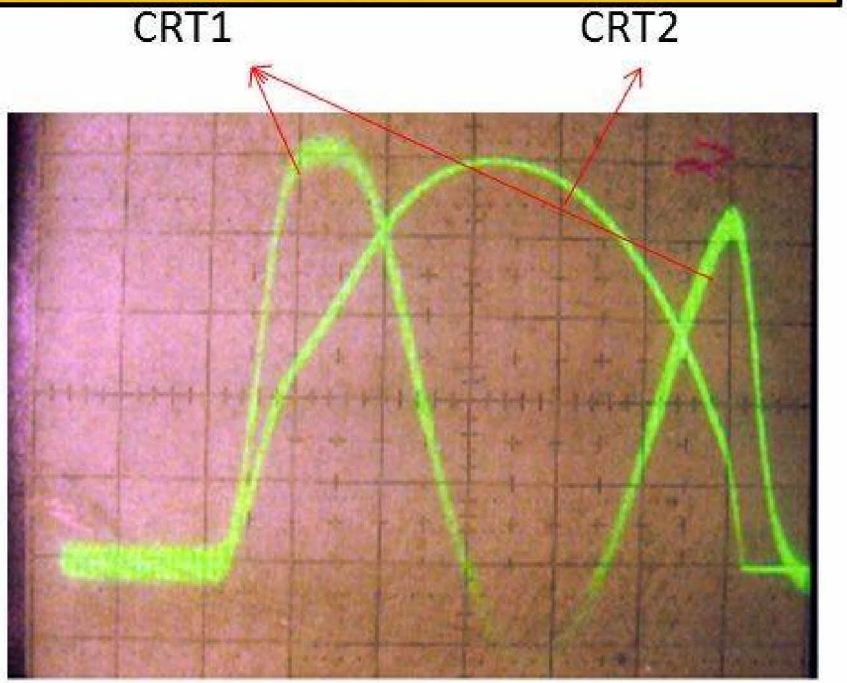
* The 10% of music signal lost by load current loss can be reproduced (gets closer to original sound.) If noise disappears, it gets closer to the sound of natural world (reproduced sound of music signal only).

CPM

* Loss signal at the time of generating reverse voltage is reproduced.

Second Generation Series Power Source Circuit and Rectifying Waveform

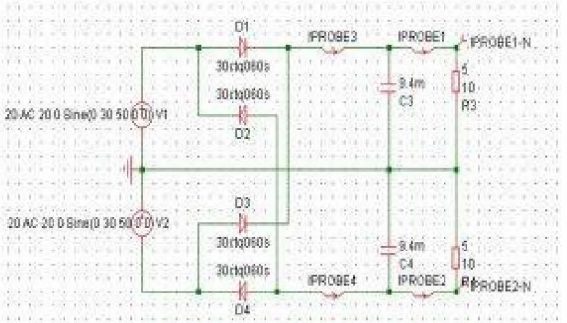




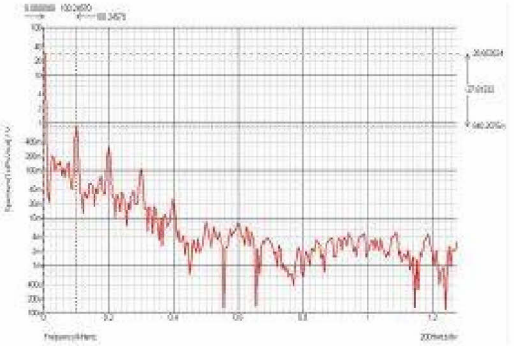
C0 is main capacitor, and C1 shows volume Capacitor (2 times of CO) in the other rectifying circuit.

Fourier Analysis which is generated due to load current loss

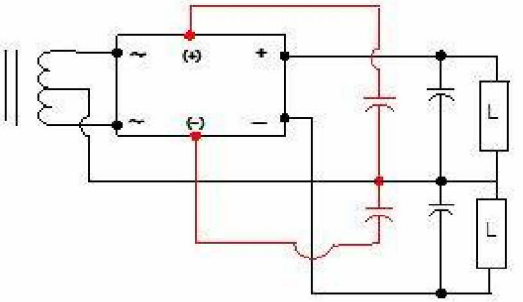
Capacitor Input Circuit



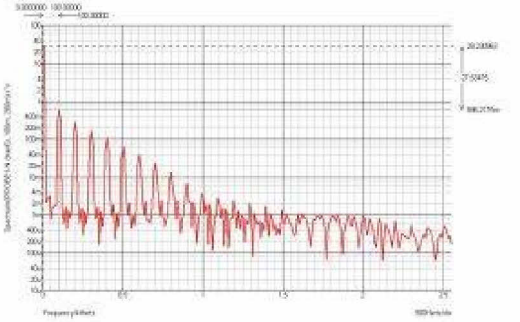
Noise level 200mV @1A, which basic waveform and noise level are buried at 400Hz.



Second Generation Capacitor Input Circuit



Clearly separate Basic Waveform from Noise Level up to 1200Hz and with Noise Level at 1mA@1A



Result

- Conventional power source generates 10% of load current loss twice in every two cycles.
  As we listen to voice signal, blended with noise which generates music signal loss in power source circuit, we are forced to listen to the sound different from that of natural world.
- Human's eyes and ears are unable to make judgment, since brain revises to look at and listen. (It might be said of the difference between Berlin Phil-Harmonia Orchestra and NHK Symphony Orchestra?)
  However, if you make comparative audition, you can judge it in one audition.
- In second generation series power source, you can listen to the sound closer to natural world, as you listen to noise-free, 100% music signal only.
- CPM function is to help reproduce more real voice by correcting weakness of direct current circuit.