Bantam Clean Power

www.bantamcleanpower.com

Patented Technology that Protects Line, Neutral and Ground

Bantam Applications

Personal & Professional Audio

Vanguard

Symptoms:

Professional recording artist Earl Talbot's recording studio was struggling to separate the sound layers he wanted from the "ghost in the machines", spending too much time tweaking EQ, effects and gates trying to mask sonic faults. Earl also had several older pieces or equipment he wasn't using because of audible noise issues.

Cause:

Many devices that share common power lines share disruptive transients, noise and harmonics among each other. In addition, audio and video equipment are especially susceptible to ground loops that occur when there is more than one ground connection path between two devices, via data cables, audio cables, chassis grounds, or poor wiring. This allows a different ground potential between connected equipment, and unmatched grounds result in unmatched voltages, creating noise and harmonic distortion in the form of audible hums or video impurities. Cables and cords over 6 feet long act as antennas, "receiving" any errant TV, Radio, cell phone, microwave signal in the form of EMI and RFI that happens along.

Cost:

Earl and his technicians were spending too much time and effort trying to find the source of the interference or masking it in his recordings. The quality of the output was not up to Earl's demanding standards.

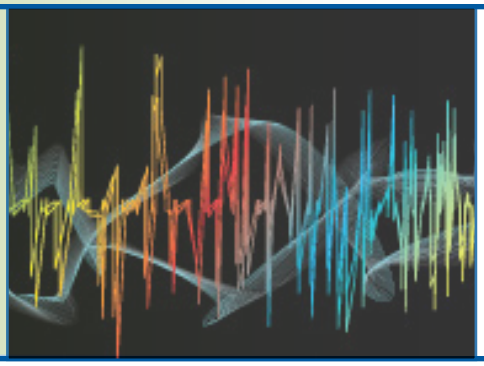
Solution:

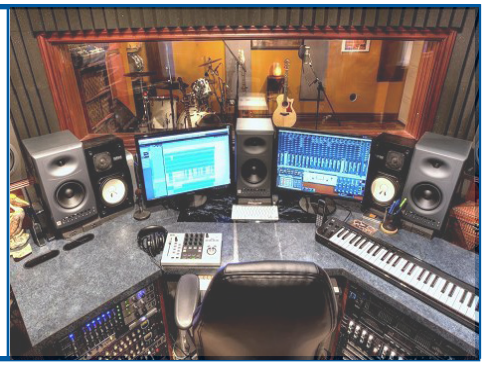
Bantam technology was used to condition and filter the power going to and from his instruments and recording equipment. Transients, noise, harmonic distortion, EMI and RFI were removed. Because Bantam's patented technology also conditions and balances the ground, it eliminated ground loop abnormalities.

Savings:

The ghost in the machine disappeared, along with the hums, crackles and pops. The sound was pure and crisp. Earl also found favorite "seasoned" instruments and devices sounded like they were brand new.

Surge Protection ● Power Conditioning & Filter ● Stable Ground Reference
Harmonic Attenuation ● Power Factor Correction ● Hacker Protection





Contact: Lodestone/Digilant, 4769 E. Wesley Drive, Anaheim CA 92807 • (714)-970-0900

Bantam Clean Power

Performance Comparison

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Other Products — Compare Surge Protection — Bantam

MOV's alone or MOV's with traditional inductors block surges and spikes on line and neutral, and dump excess energy to ground, but degrade with each surge and spike event and may not survive a significant event like a lightning strike. Effectiveness grade when new: A to C, Effectiveness grade not-new: C to F. (Needs to be replaced after significant surge event.)
Cost range: $25 to $80.

Patented circuit is always energized, anticipating surge and spike energy on line, neutral and ground. Energy is absorbed into magnetic fields, conditioned and recycled as clean energy without dumping to ground. Will absorb and dissipate over 1000 significant surge events (lightning strikes) with no degradation to Bantam or protected device, and has a useful life of over 10 years.
Effectiveness grade when new: A, Effectiveness grade not-new: A

Other Products — Compare Power Conditioning — Bantam

Power conditioning and regulating devices use transformers in combination with other components to ensure that optimum energy and frequency is delivered to sensitive devices. Often these devices will regulate voltage by chopping the sign wave. These devices can include surge protection and harmonic filtering.
Effectiveness grade: B+ to C. Additional cost range: $60 to $200

The same balanced circuit and magnetic field that absorbs and recycles power surges and spikes also conditions power, ensuring your device only experiences the optimum voltage, current, and frequency.
Effectiveness grade: B+,

Other Products — Compare Harmonic Attenuation — Bantam

A wide range of frequencies can exist in power circuits. Broad frequency filtering requires several frequency specific transformers to dampen these errant frequencies. Existing products will provide staged solutions depending on the frequencies to be filtered. Effectiveness grade over a narrow frequency range: A to B. Effectiveness across a wide range of frequencies: C+ to D. Additional Cost Range: $60 to $200

The patented technology in the Bantam (same circuit in the above examples) is a very effective bi-directional full spectrum filter from 50Khz to 2Ghz with 30dB reduction on line and neutral, and 40dB on ground. It captures and re-cycles most harmonic content (100% over the 50th harmonic) and filters EMI and RFI. Effectiveness grade per frequency range: B+.
Effectiveness grade across a wide range of frequencies: B+.

Other Products — Compare Stable Ground — Bantam

Protection on the power circuit ground is generally not available since other technology often dumps surges and spikes to the ground. Other versions protect ground by automatically cutting off power to line, neutral and ground until the threat is gone (requiring a battery back-up system). An alternative is to install expensive isolated ground circuit conduit that connects a computing device back to (hopefully clean) earth ground. Effectiveness grade: D.
Additional Cost $50-$75 (Isolated Ground, $300-$800)

Computing devices use the power circuit ground as a reference for 1's and 0's in digital code. Surges, spikes, errant frequencies, noise, EMI/RFI and harmonics on the ground can make a 0 look like a 1 and corrupt code. Bantam's technology (same circuit in the above examples) protects and filters the power circuit ground, along with the line and neutral. Digital code has a stable reference, power is not cut, and no isolated ground is needed. Effectiveness grade: A.

Other Products — Compare Ground Intrusion — Bantam

Intrusion and infiltration through the power ground is a recent concern described in the Cyber Protection literature under Tempest, Power Line Exploit (PLE), and Red Power. Non-Bantam technology power surge and conditioning devices do not protect against ground intrusion.
Effectiveness grade: F. Cost: $0

The patented technology in the Bantam (same circuit in the above examples) effectively filters line, neutral and ground, and eliminates computer operation "reflection frequencies" from the ground signals exiting a device. Effectiveness grade: A.

Other Products — Compare Power Factor — Bantam

Non-Bantam technology Power Factor Correction requires a combination of capacitors and inductors to correct inefficiencies that waste power and increase component stress and heat. This capability is usually an add-on to products described above. Effectiveness grade range A to C.
Additional Cost: $60 to $100.

The patented technology in the Bantam (same circuit in the above examples) is an inductive device and will improve capacitive power factor efficiencies by 40%. The Bantam will not improve inductive power factor inefficiencies. Capacitive Power Factor Correction
Effectiveness grade: A.

Min $255 to $655 (Not Including $300-$800 Isolated Ground) — Compare Total Costs — MSRP $114.50 One Patented Circuit, Multiple Capabilities

Revolutionary Performance • One Technology • One Product • One Low Price

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Harmonic Attenuation ○ Power Factor Correction ○ Hacker Protection

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