

Daniel Hertz Advanced Audio Designs

Owner's Manual

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DANIEH HERTZ ADVANCED AUDIO DESIGNS
www.danielhertz.com

THANK YOU

Thank you for purchasing the Burwen Bobcat system from Daniel Hertz Advanced Audio Designs. This product represents a new era of quality, enjoyment, freedom, and convenience for the reproduction of music, film sound tracks, and other audio formats.

The people behind the Burwen Bobcat system sincerely hope our product provides many years of audio pleasure.

Handcrafted in the United States

FCC Certification Statement

FCC Radio Frequency Interference Statement for the Daniel Hertz USB DAC One.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio or TV technician for help

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Caution: Due to DC coupled outputs, insure your amplifier volume controls are turned down prior to turning on or turning off the Daniel Hertz DAC One.

FAILURE TO DO SO COULD RESULT IN SPEAKER/HEADPHONE DAMAGE

Getting Started

The Burwen Bobcat system contains two key components; the Daniel Hertz USB DAC Model One and the Burwen Bobcat software. The Burwen Bobcat proprietary software cannot be used without installing the Daniel Hertz USB DAC Model One. You must install the USB DAC before installing the Burwen Bobcat software.

MINIMUM SYSTEM REQUIREMENTS:

- 500 MHz Intel Pentium 3 or Pentium 4 processor
- 128 MB RAM
- 2 MB disk space on drive C: for installation
- Microsoft Windows 2000 or XP
- USB Digital to Analog Converter (BOBCAT DAC) made by Daniel Hertz Advanced Audio Designs
- CDROM or CD/DVD drive
- Windows Media 9 Player or Windows Media Player 10 – may be downloaded from Microsoft at <http://www.microsoft.com/windows/windowsmedia/mp10/default.aspx>

What's included:

- Daniel Hertz USB DAC Model One
- Three meter USB cable
- Power cord
- This guide
- Burwen Bobcat CD and instruction sheet

You will need:

- One pair of RCA cables of your own choice

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Placement & Connections

Begin by determining where you want your Model One to live. You want to choose a place in your system that will allow for easy routing of all the cables. Even though the Model One comes with top quality cabling, you should avoid running them through piles of AC line cords which could cause unwanted interference. Once satisfied with the placement of the Model One, you are ready to hook up the cables.

On the back of the Model One, there are three sets of connections, the RCA line out marked L & R, the USB connection marked with the USB symbol and the AC power cord. Our experience has been that most audiophiles and music lovers desire to supply their own RCA cables.

- Attach the power cord to both the Model One and a suitable power strip or wall outlet
- At this point, make sure the Model One is powered off.
- Attach the square portion of the USB cable to the Model One the thin flat section to the computer
- Finally, it is time to connect the RCA cable. Connect the Model One with any line level input, for example, CD, VCR, DVD, etc. The PHONO inputs should not be used.
- Be sure the power amplifier is off or the volume setting on your stereo is set very low while hooking up the audio cables. Speaker damage could occur otherwise.
- Now were ready to switch on the Model One
- The Model One is also equipped with an audiophile quality headphone amplifier.

Plug in your favorite headphones and enjoy details you never knew were there. The audio volume is controlled by a thumb-wheel located around the corner from the headphone jack. For maximum performance, we recommend turning the volume to “MAX” on both the computer and the software player and using the volume control on the Model One to achieve a comfortable level.

Using your Model One for the first time:

Users of Windows 2000

You will be prompted by the “Add New Hardware Wizard” once the Model One is switched on. It should be noted that the Model One uses the USB audio drivers that are incorporated into the operating system and there is no need to install any additional drivers. At this point, you may be prompted for your Windows or OEM installation (sometimes called Recovery Disks) - insert the disk into the CD-ROM drive. Next, follow the on-screen instructions given by the Wizard. Upon completion, the Wizard will have installed three drivers and possibly ask you to reboot. It is wise to reboot even if you are not prompted.

Users of Windows XP Home and Pro

You will be informed by a pop-up window in the lower right portion of the screen that new hardware has been found and is being installed. You may also be prompted for your install disks.

Verification that the Model One is installed:

- Windows 2000 users check the multimedia pane of the Control Panel. Under Audio Default Device: USB Audio Device
- Windows XP users check the Control Panel Sounds, Speech, and Audio Devices. Under Sounds and Audio Devices: Daniel Hertz Model One

Troubleshooting:

If you are having problems with your Model One, be sure you have:

- Checked all the connections
- Rebooted the machine
- Read the FAQ on our Support Page
- Downloaded the Users Manual from our Support Page and read through the troubleshooting section

Still Having Problems?

Point your browser to our Support Page (www.danielhertz.com/support) and fill out the Support Form. We will get back to you in a timely manner.

Now that you have installed the Daniel Hertz Model One USB DAC, you will now need to install the Burwen Bobcat software.

INSTALLING FROM CD

- The install utility setup.msi, located on the setup CD-ROM, creates any necessary folders and copies all files required by Burwen Bobcat to C:\Program Files\Burwen Technology on your computer. Do not place the files in a different location.
- Place the Burwen Bobcat CD-ROM in the drive. AutoPlay displays the same instruction page that accompanies the CD.
- If you have disabled the CD-ROM AutoPlay feature, click the Start button and choose Run. Type D:\setup.exe, where D is the drive letter of your CD-ROM drive, and follow the on-screen prompts to complete the installation.
- Click the link to start installation.

OPERATION

- Open the Windows Media Player by inserting a CD or DVD in the drive or by double clicking its icon.
- Go to the menu item View, Plug-ins, Other, Burwen Bobcat and click to place a check mark at Burwen Bobcat. The Burwen Bobcat window will open.
- When playing your movie, disc, or music file select the sound you like best. Basic, vocal, jazz, pop, classical, or movies are only suggested starting points. Try all 18 selections and compare to no Bobcat. For more information about these settings, please refer to the 'settings' page in this manual.
- For additional tone adjustment, especially to compensate your speakers, use the graphic equalizer available in the Windows Media Player under View, Enhancements, Graphic Equalizer. The player disables the equalizer when playing ordinary movie DVD's but Burwen Bobcat still works.

SELECTIONS

BASIC

Selection Basic 1 works on any program material. Basic 2 has a darker sound. Basic 3 is slightly brighter. All the other selections are specialized for program sources with various

problems. Choosing one of these will improve or degrade the sound depending upon how well the processing is matched to the problem. Use the one you like best.

You can also access the Basic 1 setting from the BASIC BOBCAT menu. The other settings found only on the BIG BOBCAT menu are as follows:

BIG BOBCAT

VOCAL

One: Slightly wider image, extremely rich and warm bass, Less bright in the treble, slightly more air and space, reduced shrillness. Brings singers closer and sounds cleaner. Good for old jazz, too.

Two: Normal image, richer bass and midrange, extended treble, wide frequency range, slightly more air and space. Less shrillness and space.

Three: Normal image, slightly richer bass, slightly more air and space, slightly reduced shrillness. Good for high fidelity recordings that are a little shrill.

JAZZ

One: Wider image, slightly warmer bass, strong treble, more air and space, smooth and brassy.

Two: Normal image, considerably more warmth and reduced treble, quite a bit more air and space. Makes saxophones and voices fuller. You don't have to block your ears when the brasses blare.

Three: Normal image, enhanced deep bass, neutral tonal balance, some air and space with smooth and brassy treble. Very good for high fidelity recordings.

POP:

One: Very wide image, extremely powerful bass, very warm and strong treble and a lot of air and space, brilliant and deep. Makes Pink Floyd's alarm clock really ring.

Two: Normal image, warm and rich, less treble, quite a bit of air and space, full clean, smooth, and good on vocals.

Three: Normal image, rich and warm, neutral treble, lots of air and space, smooth and brilliant. Use for high fidelity pop recordings.

CLASSICAL:

One: Very wide image, extended deep bass, lots of air and space. Wide, deep, brilliant, and very smooth. A widely used Bobcat selection, often for jazz and pop too.

Two: Normal image, extended bass and very warm, reduced treble, large amount of air and space, full orchestra sound you can listen to very loud, and very smooth on jazz.

Three: Normal image very extended bass, large amount of air and space, deep, brilliant, and very smooth. Use for many types of recordings.

MOVIES:

One: Normal image very extended deep bass, attenuated middle bass, strong treble, and just a little more air and space. Makes voices easier to understand, explosions huge, and gun shots really crack. Also good for Bing Crosby.

Two: Normal image, extended bass, slightly more treble with extreme high frequencies reduced and a small amount of air and space added. Smooths voices and cleans up distorted sound tracks. Cleans up some rough sounding music recordings.

Three: Normal image, serious bass, slightly more treble, slightly more air and space. Brings voices closer and makes them easier to understand. Good on explosions and music with strong mid-bass.

WHAT'S BEHIND THE BURWEN BOBCAT SYSTEM?

This product is a collaboration between two legends of the audio and music industry: **Mark Levinson** and **Dick Burwen**.

Music (particularly jazz) quickly became the focus in **Mark's Levinson's** life. Before the age of 20 he was sitting in, on double bass and trumpet, with the likes of John Coltrane, Sonny Rollins, Sonny Stitt, Johnny Griffin, Chick Corea and Keith Jarrett. Foregoing a college education for music, as a young man he developed himself as a musician, touring Europe as a bassist with pianist Paul Bley and later going on to study classical Indian music with sarod master Ali Akbar Khan.

In his early twenties, Levinson began work in a recording studio, which became a springboard to his experimentation with electronics and sound reproduction. His first components included the mixer through which the Woodstock music festival sound system was fed.

Levinson is also a recording engineer and has recorded award-winning albums for Blue Note artists including Jacky Terrason, the Carnegie Hall Jazz Band, Joe Lovano, and Music Maker Relief Foundation.

In 1971, mentored by electronics pioneer Richard S. Burwen, he founded Mark Levinson Audio Systems (MLAS, Ltd.), hand-building amplifiers that became standards of reference in the audio industry. Later, he went on to found Cello, Ltd. and Red Rose Music, each company setting the standard for others to follow.

Dick Burwen has been a major figure in the electronics world for over 55 years. He got hands-on experience at the Navy Radio Technician training schools and theoretical training at Harvard where he earned Bachelor's and Master's degrees. His first job after graduate school was at Spencer-Kennedy Laboratories, Inc. where he designed all the RF distribution networks, and planned and supervised the initial installation of the second cable TV system built.

At Krohn-Hite Corp. Dick designed the laboratory UF101 Ultra-Low distortion Power Amplifier. Using type 6550 output tubes in a multiple-loop, high-feedback system, this amplifier, rated at 0.005% distortion was manufactured in small quantity for 20 years. From 1955 to 1961 Dick designed hi-fi equipment at National Company, Inc., circuits for military equipment at Norden-Ketay Corp., sensitive DC measuring instruments and a 1 kW transistor power for Navy sonar research at Honeywell Corp., Boston Division. During weekends and evenings he designed circuits as a consultant to other companies

After working on some very innovative projects at Honeywell, he left in 1961 to become a full-time circuit design consultant, working at his well equipped home laboratory for

more than 60 different companies during the next 42 years. He has authored more than 30 technical articles and received 10 patents; others are pending. Among the circuits Dick has designed are numerous medical instruments, industrial controls, laboratory test instruments, power supplies, aircraft instruments, automobile ignition, detectors, high resolution video displays, and analog IC's.

Dick's passion for audio has been steady for more than 60 years. Much of his life's work in both audio and consulting for various companies has been in multiple-loop high feedback systems. His developments in audio led to advances in his consulting projects and vice versa. The op amps Dick designed for his hi-fi system started semiconductor manufacturer, Analog Devices, Inc over 40 years ago. He worked for the company for a number of years as a consultant, designing many analog modules, and later, integrated circuits.

One of Dick's clients in 1961 was Lafayette Radio, a New York parts distributor. Technicians in the store basement manufactured a 160 Watt Transistor Stereo Power Amplifier of Dick's design. The output stage used series connected germanium power transistors. In the early 1970's a new company, Burwen Laboratories, Inc developed the Model 2000 Noise Eliminator, a 3:1 companding noise reduction system that extended the dynamic range of an analog tape recorder to 110 dB.

The Burwen Laboratories product line expanded to lower cost professional Dynamic Noise Filters and consumer versions. Later KLH acquired and updated the consumer products. After 30 years a few KLH Burwen Research Dynamic Noise Filters and Transient Noise Eliminators are still in use. Millions of National Semiconductor DNR chips licensed under Dick's patents appeared in car stereos and other products.

As a consultant, Dick helped Mark Levinson with the first products of Mark Levinson Audio Systems and Cello LTD's Audio Palette. He is a Life Fellow of the Audio Engineering Society.

For this project, Mark and Dick asked **Sonus Research + Design** to design a high quality USB DAC. **Ron Genereux** holds significant patents in the area of Digital Signal Processing. He was formerly director of research for Acoustic Research (AR) and Vice President of Cambridge Signal Technologies and holds a M.S. in Electrical Engineering from the University of Rhode Island. He was the first to design a DSP based Room Correction Processor, the SigTech which is still in use in recording studios around the world such as CBS, Abbey Road, and NHK. **Jim Schaeffer** was formerly president of Spectron Electronics, the first company to market PWM amplifiers. He is also an active musician and composer, having been principal bassoonist in orchestras in the US and overseas.

The jewel-like chassis is machined and hand-engraved by **F.J. Weidner and Sons** of Connecticut, who made the superb engraved aluminum metalwork for Mark's Levinson's original audio products by MLAS, Ltd. and Cello, Ltd.

Our packaging is environmentally friendly and the inner packing come from **Geami** of Morrisville, NC, an innovator in “green” packing technologies.

Our company is:

Daniel Hertz Advanced Audio Designs.

Daniel is Mark’s father name, and Hertz is the name of his great-uncle, Henrich Hertz, the first to demonstrate electromagnetic waves, for whom waveform frequency is named, i.e. Hertz (Hz), kiloHertz, (kHz), megaHertz (mHz), and gigaHertz (GHz)

The Daniel Hertz logo symbolizes human sound (a person signing, and the egg which contains the complements-in this case, analog and digital technology in harmony.

END-USER LICENSE AGREEMENT and WARRANTIES

BURWEN TECHNOLOGY INC.

BURWEN BOBCAT™ is a plug-in for the Windows Media Player 9 or 10. To assure highest audio quality it plays only through a USB connected Burwen Bobcat Digital to Analog Converter made by Daniel Hertz Advanced Audio Design.

YOUR LICENSE:

Burwen Technology, owner of the software, hereby grants you a limited, non-exclusive license to install and use the Burwen Bobcat software on a single computer to which is connected a Daniel Hertz Model One USB DAC. This is a USB Digital to Analog Converter made by Daniel Hertz Advanced Audio Designs.

YOU MAY NOT:

- Pass any copy of this software to anyone else unless you terminate all use, remove installations, and assign it, without violating U. S. laws, to one person who accepts this agreement.
- Try to or make money through the use of this software.
- Use this software for broadcast, Internet, downloading, or server use, or post it where access by others is possible.
- Try to or obtain any part of the source code, or modify or translate any part, or duplicate the processing.
- Use this software to help violate copyright or intellectual property rights of others.
- Use this software for purposes that are libelous, defamatory, slanderous, or illegal.

WARRANTY & RETURNS

DANIEL HERTZ ADVANCED AUDIO DESIGNS

Daniel Hertz warrants our products against defects in material or workmanship for a period of one year from the date of original purchase, and agrees to repair or, at our option, replace any defective unit without charge for either parts or labor. This warranty does not cover damage resulting from accident, misuse or abuse, lack of reasonable care, the affixing of any attachment not provided with the product, loss of parts, or connecting the product to any but the specified receptacles. This warranty is void unless service or repairs are performed by Daniel Hertz or an authorized service center.

No responsibility is assumed for any special, incidental or consequential damages. However, the limitations of any right or remedy shall not be effective where such is prohibited by law.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitations of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

Products are sold on the basis of specifications applicable at the time of manufacture. Daniel Hertz reserves the right to make changes or improvements in the design of the equipment without obligation to make such changes or improvements in purchaser's equipment. Any out-of-warranty repairs are warranted against defects in materials and workmanship for a period of 90 days from date of service.

All sales of the Daniel Hertz USB DAC and Burwen Bobcat are final. In the event of your dissatisfaction with Burwen Bobcat software, Burwen Technology's entire liability shall be, at its option, to replace the software. Please provide a copy of your invoice.

Burwen Technology shall not be liable for consequential damages, including damage to your computer or files, due to your use of or inability to use Burwen Bobcat software.

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