



HOME THEATER  
AND BEYOND

*It began with an idea.*

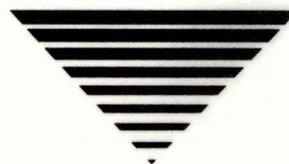
*A dream to create a VCR that could be easily and quickly programmed. A simple idea that to this day remains a challenge for many. But the idea behind the FroxSystem™ has blossomed far beyond that original dream.*

*The FroxSystem captures the theater experience and brings it home, offering audio and video performances not easily attained. It excites and captivates the senses, unleashing the potential of the audience. It engages existing home theater components with assurance, simplicity and elegance. And it stretches the imagination with interactive knowledge, making entire information libraries available at the touch of a button.*

*Its potential is limitless, for it can and will evolve to fulfill the changing demands of the future. It is the "Smart TV" predicted by many, desired by all, available today.*

*Above all, it is entertainment – home theater at its finest. And it is only for the discriminating few.*

*It is the FroxSystem.*





In 1991, Frox™ introduced the world's first interactive home entertainment center, designed to complement your existing portfolio of home theater components.

A state-of-the-art FroxSystem theater consists of five distinct elements:

**FroxVision™ Digital Video**—A digital video processor that achieves 'film-like' imaging from current video sources, removing scanning lines and other artifacts inherent in standard NTSC signals.

**FroxSound™ Digital Audio**—Breakthrough technology providing all-digital LucasFilm Home THX® Audio, Dolby™ Pro • Logic surround sound processing, digital graphic equalization, plus our DSP hall-effects generator known as The Sonic Playground.™

**FroxControl™ User Interface**—A patent-pending control method that combines easy-to-use on-screen icons with the powerful FroxWand™ remote control... permitting one-button operation of your entire home theater ensemble.

**FroxCast™ Data Services**—A series of information libraries continuously updated via the revolutionary FroxCast data services network. Current

databases include weekly cable and off-air television schedules, a 30,000-title compact disc library, plus the extensive Frox movie library of films released since the early 1900's.

**FroxZone™ Multiroom Audio**

**Routing**—True digital audio routing wallplates, multiroom control keypads and software protocol for rapid access to the audio/video source components connected to your FroxSystem—anywhere in the house.

Fully integrated, the FroxSystem is truly the first all-digital 'information appliance' for the home, enabling you to operate individual components or access entire libraries with an integrated one-button remote... to preview local or national cable schedules or tape upcoming programs with a touch of the FroxWand... to browse CD or movie libraries, receive new features and subscription services over-the-air and even control and route desired components to remote destinations throughout the house—with more ease and convenience than you dreamed possible.

Discover the FroxSystem—where the computer and the television become one!



Presenting the FroxSystem... a brilliant collection of components that transforms the face of today's home entertainment landscape.

Your personal Frox screening room combines state-of-the-art digital audio and video performances, rivaling the impact and excitement of a theatrical film release!

Yet the beauty of Frox goes far beyond the theater experience.

Frox uniquely integrates your existing components through the revolutionary one-button FroxWand remote control. The FroxWand makes complicated, hard-to-use remotes a thing of the past, allowing effortless operation of all your favorite audio/video components.

To complete your system, Frox provides access to comprehensive libraries that are regularly updated for your convenience. And because you can use future software releases to add new features or even change the heart of your FroxSystem, obsolescence is virtually eliminated.

Welcome to the future of home entertainment—the FroxSystem.





FIVE CUSTOM FROXVISION ASICS ENHANCE ALL STANDARD VIDEO SOURCES.



DIGITAL VIDEO FEATURES INCLUDE CLOSED CAPTIONING FOR THE HEARING IMPAIRED.



our theater at home begins with FroxVision—digital video

processing that delivers a picture so detailed and sharp, you may never wait in another movie line again!

**The Digital Difference**—Until now, even the finest home theater systems have suffered from the inherent limitations of the NTSC\* broadcast television standard. As picture size increases, unwanted artifacts such as scanning lines and cross-color imperfections become more noticeable, thus detracting from the movie experience. (In other words, it looks more like a large TV instead of a film at the theater).

A primary mission of Frox is to get as close as possible to the original film presentation. To accomplish this, every FroxSystem incorporates five proprietary ASICs (application specific integrated circuits) dedicated solely to improving video quality. These ASICs unleash the power of digital video within the FroxSystem, enhancing all images from standard video sources (broadcast, laser disc or videotape).

\* NTSC—NATIONAL TELEVISION SYSTEMS COMMITTEE

**High Definition Imaging**—FroxVision's high-speed video processors remove all apparent scanning lines in the NTSC video signal, producing a "seamless" image much closer to the original cinematic experience.

The television picture you're used to seeing is a composite "built" from numerous still video images flashed at 30 frames per second. These frames are electronically scanned and transmitted, beginning in the upper left-hand corner of the screen, and continuing back and forth in a straight line until the entire image is completed.

This wouldn't be a problem except that early broadcasting constraints mandated that only half of each video frame be presented at a time. In other words, 60 "half" images (each containing 262½ lines) are displayed every second. The result? Visible scanning lines (among other artifacts) as these half-images flash before your eyes—particularly on the larger home television screen sizes.

**Digital Video Line Doubling**—Frox employs a technique known as "Digital

Video Line Doubling" to eliminate all visible scanning lines from the original NTSC signal. Our proprietary process captures and combines every two subsequent half-images—presenting full 525-line images, sixty times a second. FroxVision effectively doubles the amount of information presented to a video monitor!

Other line-doubling processors also attempt to eliminate scanning lines, but they often create more problems than they solve. For example, objects in motion present the most difficult challenge for a line doubler (as they are among the most unpredictable elements of a picture). With lesser processors, an undesirable "smearing" or softening of the image can result.

The FroxVision digital video centers remove all visible scanning lines while retaining the original picture's sharpness and detail, particularly in motion-intensive scenes.

**Active Pixel Control**—The FroxVision processors achieve remarkable cinematic depth and realism through intensive management of each sub-element of the video image. We call this enhancement Active Pixel Control (APC).

APC is applied as Frox digitizes the incoming video signal, converting (or mapping) each image into 768 pixels per line. Throughout the digital APC

processing, every pixel is actively manipulated in dozens of imaging parameters. The net result is more than 371,000 pixels are processed every 1/60 of a second... *over one billion high-speed operations* enhance all portions of the FroxVision image, every second.

**24-Bit Color**—Frox also employs true 24-bit color processing, resulting in a color palette of more than 16 million colors!

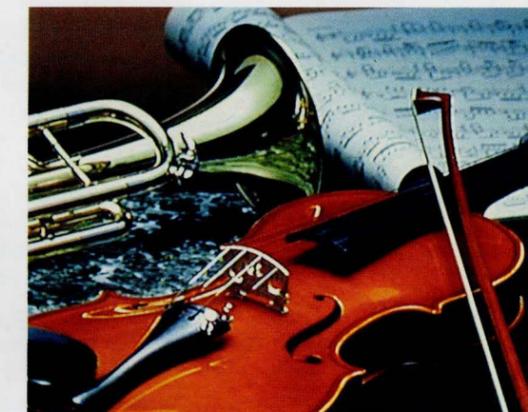
In total, Frox achieves a breathtaking image, free of scanning lines and unwanted motion artifacts... a picture accurate in every detail... no other digital video processor can match the FroxVision experience\*

**Multiple PIP Features**—Frox digital video processing supports multiple Picture-In-Picture (PIP) options. With the FroxSystem, you can watch two live television programs at the touch of a button (for example, select one program using the Frox 181-channel cable-ready tuner, the other using the tuner on your VCR). Or, you can create your own PIP inset-window combination (television and laser disc, for instance). The inset picture can be quickly moved to any point on screen or resized to suit your viewing desires.

**Total Control**—The power of Frox enables you to make independent channel and component video

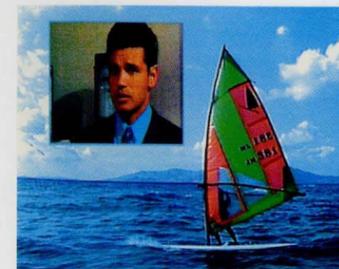


NTSC IMAGE



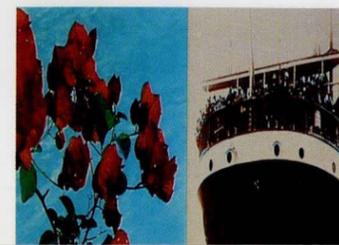
FROXVISION IMAGE

FROXVISION ACHIEVES "FILM-LIKE" IMAGING FROM CURRENT NTSC SOURCES (BROADCAST LASER DISC OR VIDEOTAPE).

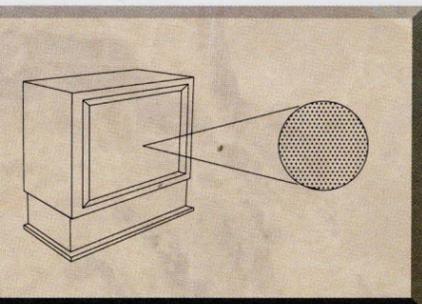


CREATE YOUR FAVORITE INSET PIP (PICTURE-IN-PICTURE) FROM ANY AVAILABLE VIDEO SOURCE.

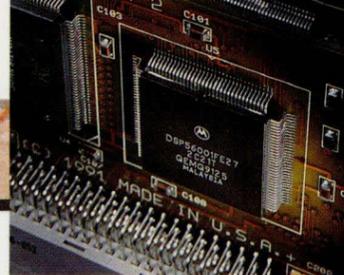
\* FROXVISION INTERFACES WITH VGA-COMPATIBLE MONITORS AND PROJECTORS (31.5 KHZ, RGB AND SYNC INPUTS).



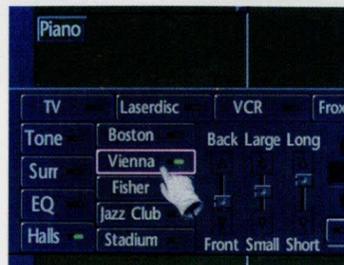
ENJOY TWO LIVE PROGRAMS SIMULTANEOUSLY WITH FROXVISION IMAGING.



FROXVISION APC DIGITAL PROCESSING ENHANCES OVER 371,000 VIEWABLE PICTURE ELEMENTS, REMOVING SCANNING LINES AND OTHER ARTIFACTS.



FROX USES MOTOROLA SERIES 56001 DIGITAL SIGNAL PROCESSORS IN THE FROXSYSTEM.



LISTEN TO YOUR FAVORITE MUSIC IN CUSTOMIZED HALL ENVIRONMENTS WITHIN THE SONIC PLAYGROUND™.



The FroxSystem sets new standards in the digital audio era. It is the first home entertainment platform that uses software to integrate existing component sound equipment, managed with the help of a graphical user interface. The eight digital audio inputs and 16 optical digital audio outputs make FroxSound the ultimate home audio network.

**Reference Quality Audio**—The FroxSystem enhances all audio sources entirely in the digital domain. Digital audio signals enter the Frox Media Processor, undergo processing and exit without ever being converted into analog. Such digital audio pathways eliminate the conversion errors and analog signal degradation common to less capable audio processors.

Digital audio signals can be extremely dynamic, placing heavy demands on the entire audio reproduction chain. For example, movies with loud explosions or percussive passages mandate audio systems with plenty of reserve headroom.

Frox digital audio data paths are never less than 24 bits wide, providing a dynamic range greater than 144dB! This ensures that all the critical dynamic impact of your original audio

source is preserved with room to spare. (Additionally, it means the FroxSystem is already prepared to accommodate future digital audio formats offering up to 24 bits of precision).

**General Purpose Design**—A primary drawback to advances in technology is the 'obsolescence factor': what's new today is obsolete tomorrow. If you're like many audio enthusiasts, you probably feel compelled to update your equipment every few years to keep up with the latest advances. Frox puts an end to this expensive practice with the FroxSound Digital Audio System.

In the FroxSystem, advanced, general purpose Digital Signal Processors (DSPs) are outfitted on easy-to-install digital audio cards housed in the Frox Media Processor motherboard. The minimum system configuration requires three DSP cards, but it can be expanded to house up to eight cards. Each digital audio card has the ability to calculate 20 million digital instructions per

second (20 MIPS)—for a potential processing power in the Frox audio section alone of 160 MIPS. Think of it this way—you'll have several engineering computer workstations at your disposal for sound processing!

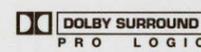
When an audio request is made (for example, the digital eight-band graphic equalizer is requested), the system "loads" the specific software program into the general purpose DSP architecture. Your audio source (combined with the Frox EQ program) flows into these remarkable processors and the signal is enhanced. As different (or advanced) audio features are desired, the FroxSystem simply clears the old program and inserts the new one. This concept of general purpose processing allows new system features to be created at the software level, rather than forcing you to replace your valuable hardware.

**LucasFilm Home THX® Audio System**—Of the many audio options on the market today, the all-digital Home THX Audio processing is the no-compromise choice for the discriminating home theater enthusiast.

 Licensed by LucasFilm LTD's THX Division, this six-channel surround

sound processing technology was developed to faithfully reproduce a movie's soundtrack as originally intended by the filmmaker. In conjunction with THX-certified power amplifiers and loudspeakers, the FroxSystem THX controller places you at the very heart of all the action.

**Dolby™ Pro • Logic Surround Sound**—The Dolby name is synonymous with theater sound. Four-channel Dolby Pro • Logic processing is an extremely popular surround sound choice in the entertainment world, creating exciting special effects from left/right/center and surround sound loudspeaker arrays.

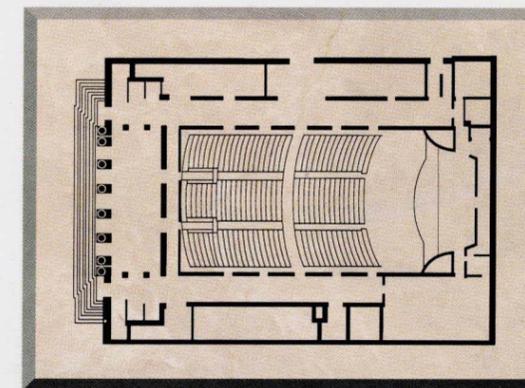
 FroxSound provides a certified, all-digital Dolby Pro • Logic surround sound processor, managed by a graphical on-screen control panel for ease of operation. Installation sub-panels are hidden from view, leaving the most frequently-used controls available for quick access.

**The Sonic Playground™**—Frox proudly presents our unique digital audio hall effects generator! Imagine hearing Michael Jackson wow 'em in Wembley Stadium... or Miles Davis nestled in a downtown jazz nightclub. Your favorite CDs can transport you to new acoustic venues within The Sonic Playground.

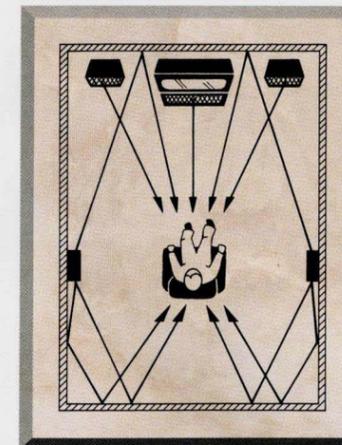
Frox provides realistic wall reflections and room sizes at the touch of a button. Create your custom sonic

environment, or choose from one of five pre-configured models: Boston Symphony Hall, Vienna (Grosser Musikvereinssaal) Hall, Avery Fisher Hall, an intimate Jazz Club setting or a large Stadium environment. Changing the room size or reflective properties of any room gives you an endless array of customized impressions to enhance your favorite music.

**Digital Graphic Equalizer**—An eight band per channel stereo graphic equalizer lets you optimize any source to your listening tastes. On-screen graphical sliders permit easy adjustments (+/- 12dB range) of selected frequencies. Convenience features include a "gang" control to copy your right channel adjustments to the left channel (and vice versa), a "bypass" control that allows instant comparison between processed and unprocessed sound, and five custom EQ memory control settings for quick recall of a personal setting preference.



TRANSPORT YOURSELF TO THE BOSTON SYMPHONY HALL... DIGITALLY RECREATED BY INTENSIVE FROXSOUND DSP PROCESSING.



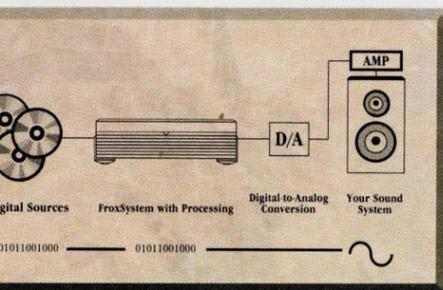
CREATE THE ULTIMATE CINEMATIC SURROUND SOUND EXPERIENCE WITH YOUR FROXSYSTEM HOME THEATER.



ALL-DIGITAL THX® SIX-CHANNEL SURROUND CONTROLS ARE WITHIN EASY REACH VIA THE FROX ON-SCREEN INTERFACE.



FROXSOUND INTERCONNECTS READILY WITH YOUR EXISTING AUDIO EQUIPMENT (USING ANALOG OR DIGITAL CABLING).



DIGITAL-STRAIGHT-LINETM PROCESSING KEEPS YOUR ORIGINAL SOURCE MATERIAL ERROR-FREE, RIGHT THROUGH TO YOUR AUDIO SYSTEM.



MASTER THE MOMENT WITH THE ONE-BUTTON FROXWAND REMOTE CONTROL.



EIGHT "INSTANT-ACCESS" BUTTONS ADD SPEED AND OPERATION FLEXIBILITY.



Two distinct components serve as the nucleus for any FroxSystem home theater: the Media Processor and Video Preprocessor. These platforms operate in nearly perfect harmony, harnessing the prerequisite computing power necessary for the ultimate Frox experience.

Digital audio and video blend within the Media Processor. This powerful nerve center houses the primary FroxSystem microprocessor, proprietary ASICs for digital audio and video, as well as the multiple DSPs required for reference-level FroxSound audio. The Media Processor is also the base for the Frox operating system software and unique database libraries (including updates).

The Video Preprocessor links the digital world of the Media Processor with your analog components—integrating today's video cassette recorders, laser disc players, cable and off-air broadcasts, in addition to other available analog devices. Audio power amplifiers may be connected directly to the Video Preprocessor, thus eliminating the need for external audio converters or preamplifiers.

Together, the Frox Video Preprocessor and Media Processor provide the highest fidelity presentation for your home theater, easily incorporated with your existing source components.

Finally, the FroxSystem replaces the wide array of complicated remotes with the brilliantly simple FroxWand remote control.

One-button operation (acting as a free-air thumb "joystick") is coupled with twin activation trigger panels (positioned at your fingertips), thus simplifying the control of your entire home theater system. Combined with easy-to-use on-screen icons, the FroxWand makes operating your audio and video components a breeze.

In addition, eight convenience buttons on the face of the FroxWand add even more speed and flexibility when operating the system. Frequently used controls such as volume, channel up/down, mute and pause are just some of the instant access features available at a single touch.





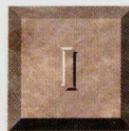
UNIQUE FROX ON-SCREEN PANELS ENABLE COMPLETE CONTROL OF YOUR ENTIRE HOME THEATER.

Unhappy with channels 12, 22 and 35? Simply engage the VIDEO control panel for any desired changes, make the adjustments and your custom settings will remain in place each time you return.

**Picture This!**—Frox provides up to six different PIP (Picture-In-Picture) options, so you'll always master the moment. Create the perfect inset picture with the Frox movable and resizable PIP (inset version), or click on the advanced PIP button for instant "split screen" action (two equal-sized images at a time). Other choices include POP (Picture-Outside-Picture), 4 or 9 – quadrant strobing, even 9 channel station scanning – all for the right pictures at the right time.

**Diverse Sound Processing**—Enjoying your favorite music is just as easy, as key audio parameters are independently configurable to each component. A touch of a button enables any one of five audio processing centers: Tone (for minimalist stereo processing), Dolby Pro Logic or THX surround sound, digital 8-band graphic equalization or The Sonic Playground hall-effects generator.

**Interactive Information**—The precision of FroxControl is especially apparent in the integration of unique and powerful information libraries. Within each FroxSystem are three interactive databases—Frox TV Schedules, Compact Disc and Movie Libraries – that represent new dimensions in the world of home entertainment.



It's easy to see the appeal of Frox.

On the one hand, there's the reference-level digital audio/video performance; on the other, Frox redefines the term 'ease of use' with the one-button FroxWand remote.

FroxControl is that final blending element that makes the FroxSystem experience so clearly unique, so definitive in style, so elegant yet simple to use.

**The Ultimate Control**—Beyond on-screen graphics, the FroxControl user interface opens new doorways to the world of system management and information access.

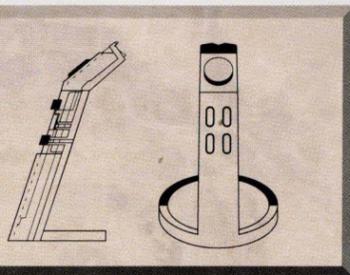
A click of the FroxWand reveals an on-screen "gloved" hand, which you can instantly move to any area of the screen by lightly depressing the main thumb pad control. Guiding the hand icon across the video landscape is mastered in seconds – aided by buttons that light up when you've reached the correct position. At your command, buttons appear, controls are revealed, icons and menus are engaged. You can change features, parameters, even images to fit your personal desires, orchestrating entire performance changes at the slightest whim. A touch can uncover information long hidden,



or even unavailable, until the advent of Frox.

**The Adult Playland**—Every aspect of your home theater system is within easy reach through FroxControl.

Video settings, for instance, may be tailored on a per-channel, per-component basis, permitting the very best possible picture. Want your laser disc image to "look" a certain way when compared with your VCR?



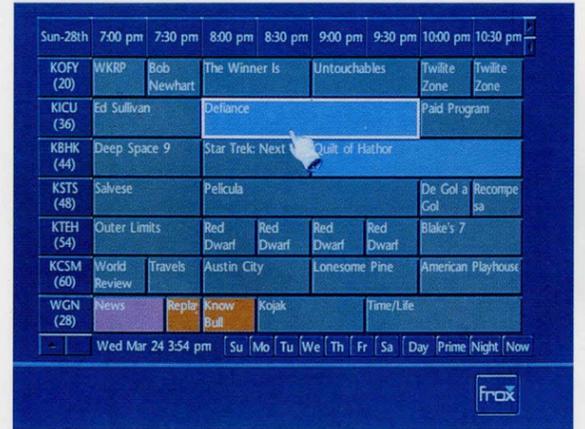
THE FROXWAND'S ERGONOMIC DESIGN PUTS ANY FEATURE WITHIN EASY REACH.

**Find It, Watch It, Record It**—Now to one of life's great mysteries... how to program your VCR. Countless hours have been spent in the attempt to simplify this process, usually with varying degrees of success. Access the FroxSystem's TV Schedules database and you'll become an instant VCR recording pro.

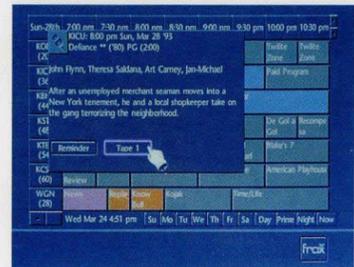
Interested in recording a movie? With the FroxSystem, it couldn't be easier: insert a blank tape into your VCR, then click on the Frox TV Grid. You'll quickly be able to search through the week's television schedules, find the event you're looking for, click on the program for a brief synopsis of the show ("Yes, that's the one I want...") and hit the TAPE-IT button. Setting up in-advance timeshifting (or even advanced viewing requests) is a breeze with Frox.

**Anything is Possible**—The greatest asset of FroxControl may be its hidden one. Until Frox, complex and multi-layered information requests took far too long or revealed too little. FroxControl rapidly accesses information and simplifies total system operation – finding and accomplishing tasks in the manner you want them, when you want them. And in our fast-paced world, time saved means more time to enjoy life.

And that's the true power of Frox.



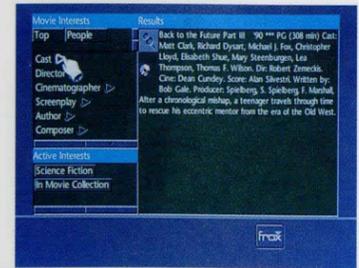
PREVIEW THE UPCOMING WEEK'S TELEVISION SCHEDULES WITH THE FROXCONTROL TV GRID.



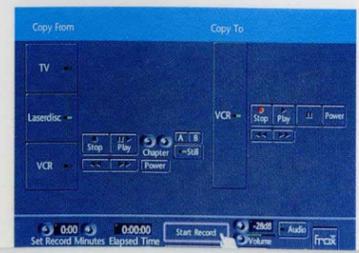
TOUCH ANY TV PROGRAM TO REVEAL THE SHOW'S SYNOPSIS, THEN...



...CLICK ON THE "TAPE IT" BUTTON FOR ONE-TOUCH VCR PROGRAMMING.



PERFORM A DETAILED FILM STUDY IN THE EXTENSIVE FROXSYSTEM MOVIE DATABASE.



THE FROX DUBBING PANEL PERMITS INSTANT COPYING FROM ONE VIDEO COMPONENT TO ANOTHER.



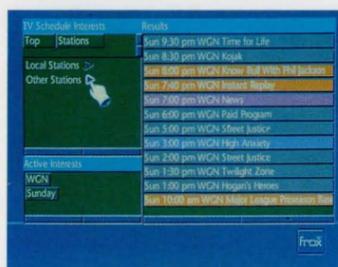
FROXCAS UPDATES YOUR UNIQUE LIBRARIES WITH THE LATEST ENTERTAINMENT INFORMATION.

**New Compact Disc Releases**—Frox expands your initial CD reference library with frequent new release updates. Just a click of the FroxWand reveals the latest compact disc titles, enhancing your original 30,000+ CD textural library with the most recent releases.

At a glance, you'll know if your favorite artist has recently produced a new album. Scan through the latest pop, jazz or classical releases for in-advance CD purchasing decisions... even view the new discs' cover graphics! It's all possible with the FroxCast CD Library updates.

**FroxCast Movie Library**—Want to know more about your favorite actor, actress or director? Looking for the details on a recently-released film? Simply browse through the periodic FroxCast Movie Library updates... an enhancement to your original 40,000 film library provided with the FroxSystem.

**The Future With FroxCast**—Your link with FroxCast unlocks the potential of your media system, broadening and ever-expanding your home entertainment horizons. Plans are underway to significantly enhance both the scope and interactivity of the FroxCast network. New offerings and future services are limited only by the imagination—as FroxCast fulfills the dream of changing forever the nature of television.



system will begin receiving all local television and cable listings.

You'll receive up to an entire week's worth of TV programming information—updated daily and formatted for use within the Frox TV grid and schedule browsers. Plus, the events are color-coded for rapid identification: movies are in blue, sporting events in orange, news items in red, and all other programming in gray.

A click of the FroxWand previews your upcoming prime-time schedule grid... scan ahead through the week's special events in the TV schedule browser... see if your favorite film star appears this week... and, of course, activate the one-touch TAPE-IT button for easy recording. You'll never miss another important television show with the FroxCast schedule guides.



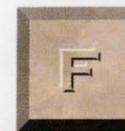
Until now, even the finest home theater systems in the world had their limits. With the FroxCast information and entertainment services updates, you can erase those limitations at the touch of a button.

FroxCast is the missing link for the ultimate home theater, creating the definitive marriage between home entertainment, information and control.

**'Transparent Technology'**—Frox broadcasts specific database updates into your home media center every day. Each FroxCast transmission consists of digital information "packets" encoded within pre-determined local or national TV broadcasts... or forwarded to your system via telephone modem. Every home with access to cable, satellite or telephone lines is ready to receive the FroxCast data updates.

Equally important, FroxCast reception occurs transparently during system power off cycles—no interactivity is required to begin a FroxCast update.

**FroxCast's Overnight Sensation**—Subscribing to any FroxCast program is easy—your Frox dealer can initiate the services with a phone call. For example, upon entering the proper FroxCast TV schedules authorization code (individualized to each Media Processor), your



FroxRoute™ was conceived to easily distribute digital audio and FroxControl throughout an entire household. FroxRoute is comprised of three distinct elements: FroxRoute MusicPlates, Simultaneous Audio Sources, and FroxZone™ Software Control.

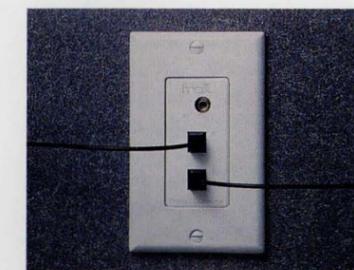
First, the benefits of a true digital audio routing approach...

**Digital Vs. Analog Routing**—One of the most important aspects of the FroxSystem is its Digital-Straight-Line™ method for audio management. With Frox, all digital audio sources enter, exit and are processed entirely in the digital domain (without conversion to analog). Even analog audio sources are immediately converted into digital states upon entering the FroxSystem, and remain so until the last possible moment. Using this approach, the integrity of the original signal is always maintained and results in error-free audio. Finally, unlike analog signals carried over conventional wiring (that can be adversely affected by environmental hazards), digital signals do not degrade over signal paths of any length.

This is why Frox decided to base the entire audio routing structure on a

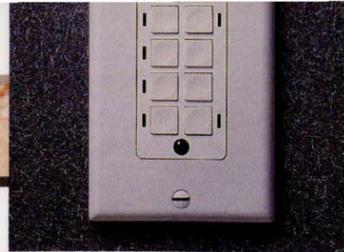
Digital-Straight-Line approach: music distributed throughout the house will sound as pure in the bedroom or recreation area as it does in the main theater. The beauty, of course, is all audio sources originate from one central point—the FroxSystem theater.

**FroxRoute MusicPlates**—Any of the 16 fiberoptic digital audio outputs may be chosen for audio routing via the FroxRoute MusicPlates. These unique in-wall modules make routing digital audio signals efficient to accomplish and easy to install. The main room MusicPlate module accepts up to eight-

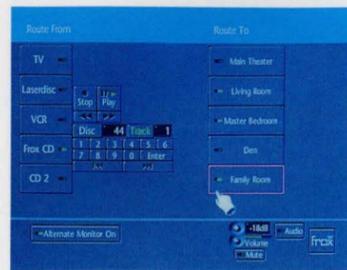


channels of digital audio (through fiberoptic inputs) and converts each into an equivalent *electrical* digital signal. This digital signal is then easily routed through the home on conventional coaxial cabling (RG-59 or RG-6). In remote listening rooms, the electrical digital audio signal is converted back into *optical* via an in-wall multiroom MusicPlate receiver module.

THE FROXROUTE MUSICPLATE SYSTEM CONVERTS OPTICAL DIGITAL AUDIO INTO EQUIVALENT ELECTRICAL FORMATS (AND BACK AGAIN), PERMITTING LONG RUNS OF TRUE DIGITAL AUDIO TO REMOTE DESTINATIONS.



IN-WALL 8-BUTTON KEYPADS  
ACTIVATE YOUR AUDIO REQUESTS  
FROM ANY AREA OF THE HOME.



THE FROXZONE AUDIO ROUTING  
PANEL CAN BE ACCESSED AND  
CHANGED AT ANY TIME.

The resulting sound quality is indistinguishable from the main theater's digital audio, even though routed hundreds of feet away.

**Simultaneous Audio Sources**—Let's say you're in the main theater enjoying a movie in THX surround sound and the kids want to listen to a favorite CD in the bedroom. No problem with Frox!

With the FroxSystem, up to four independent audio source components can be enjoyed simultaneously in the home. Not only can you and your kids enjoy your favorite FroxSound selections, but two more different audio sources can be played at the same time in different zones. Finally, any of the other rooms interconnected with FroxRoute can share any of the four sources at a time... quite the sonic network!

**FroxZone Control**—Typically your custom installation specialist will group rooms within a home into larger areas called "zones" The rooms within these zone areas usually share the same audio programs and control of the FroxSystem; for example, the living room and adjacent dining area might be considered a single "zone" while the master bedroom/master bathroom would be a second zone area, the den a third one, and so forth.

Frox provides two important methods to control the system components and Frox-specific features:

**In-Wall Keypad Control**—Conveniently mounted in desired zone areas, unique 8-button in-wall keypads\* permit instant access to the Frox components and feature sets. These keypads eliminate the need to dedicate a TV monitor in these remote audio-only destinations.

FroxZone control software can identify 14 different keypad locations throughout the house, with each keypad offering only the desired features for that particular audio zone compared to another. Software 'macros' (FroxControl function combinations) can be assigned to the 8 keys independently within each of the 14 keypad zones.

For example, if the kids select a particular compact disc player in the bedroom, their keypad functions are unique to their needs (button #1 activates the CD and places it in the play mode; button #2 requests random

\* KEYPADS MANUFACTURED BY  
AUDIOACCESS, HAYWARD CA

play... control features are designated for *this* particular keypad zone only). In another area of the house, button #1 might engage the laser disc player, while button #2 selects the television audio. Other component features can be likewise selected on a per-zone, per-keypad basis, or even on a whole house basis... limited only by the imagination and desires of the user.

Customized keypad "caps" are available with legends that reflect the functions of that particular zone. These keycaps are interchangeable so if the homeowner decides to change the system's operation in the future (for instance, swap the configuration of a few keys, or even an entire keypad), the changes are as simple as popping out the old keycap and inserting a new one. The FroxZone software macros may also be easily changed at any time to reflect the modified keypad feature requests.

**Infrared Zone Control**—The second major way to operate a FroxSystem... your FroxWand can control the system not only in the main theater but in the multiroom destinations, as well. Additional wands used in conjunction with readily-available infrared (IR) repeaters enable independent IR commands to be passed back to the main system.

Each FroxSystem is equipped with one main theater IR sensor (located on the face of the Media Processor) and three rear panel dedicated ports for optional

IR repeaters. These infrared sensors may be installed in independent "zones" for dedicated IR control (in total permitting four infrared zones). Within each IR zone, the audio source's volume and limited source operation can be independently adjusted by the FroxWand.

**Alternate Monitor Viewing**—When using a FroxWand in a remote room, complete system control is available by installing a data-rate graphics monitor (one that can handle and display the full graphical user interface). With VGA-compatible monitor(s) throughout the house, all system features are easily accessible, including the digital FroxVision line-doubled image. These multirooms become, in essence, exact replicas of the main theater image and control screens.

By popular request, Frox engineers added software that enables the operation of most of the FroxSystem's features on a conventional NTSC television set!

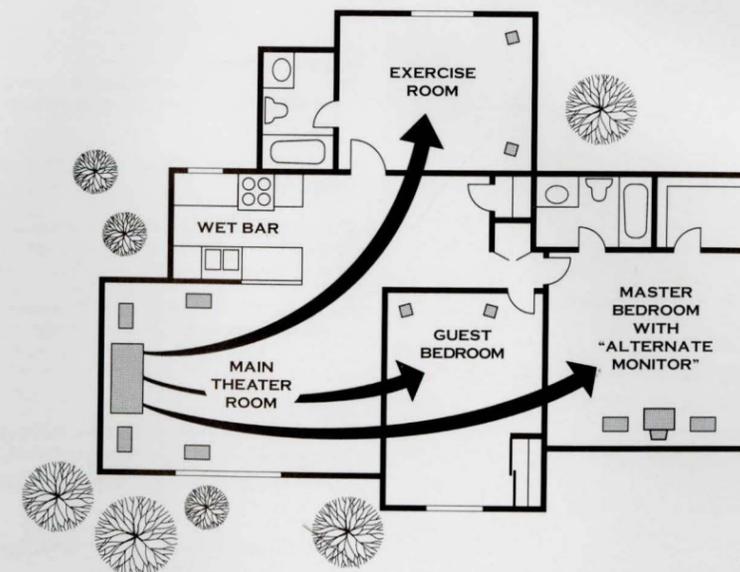
This "alternate monitor" software turns the television monitor you already own into a Frox multiroom control screen. The graphical user interface is 'scan converted' for use by standard NTSC television monitors (connected through

the composite or S-Video inputs). The only features not available on an alternate monitor is the FroxVision line-doubled image and certain features associated with the secondary video input.

Your Frox dealer can best outline the numerous possible configurations for total system control and multiroom audio routing with your FroxSystem home theater platform.

UP TO FOUR SIMULTANEOUS AUDIO  
SOURCES CAN BE ROUTED BY THE  
FROXSYSTEM INTO DISTINCT ZONE  
AREAS.

"ALTERNATE MONITOR" SOFTWARE  
EVEN PERMITS FROXCONTROL  
GRAPHICS ON A STANDARD NTSC  
MONITOR IN THE MASTER BEDROOM.



# SPECIFICATIONS



## Video Preprocessor

### **Analog Audio**

Aux1, Aux2

Input 0.7V, 50k $\Omega$

Output (variable) 2V, 50k $\Omega$  @ 0dB, 1kHz

Frequency Response: 20Hz - 20kHz,  $\pm$ 1dB

THD

(@ THX Ref. Level): 0.04%

D/A Conversion: 18 Bit, 8x Oversampling

A/D Conversion: 16 Bit, 64x Oversampling

### **Video I/O**

Video Input 1.0Vp-p, 75 $\Omega$  unbalanced (x2)  
S-Video (x2)

Video Output 1.0Vp-p, 75 $\Omega$  unbalanced (x2)  
S-Video (x2)

Audio In 0.7V, 50k $\Omega$

Audio Out 1.0V, 600 $\Omega$

### **Tuner**

Antenna Input: 75 $\Omega$  unbalanced

Channel Tuning VHF: 2-13

Range: UHF: 14-83

Cable: 0-99

### **General**

Dimensions (WxHxD) 17.5 x 17.2 x 4.4

Power Consumption: 132W (nominal voltage)

Power Requirement: 90-132 VAC, 47-63 Hz

## Media Processor

### **Digital Audio**

Digital Audio Inputs: Wired Coaxial (x2)  
75 $\Omega$  unbalanced  
Optical (x6)

Digital Audio Outputs: Optical (x16)

Frequency Response: 0Hz-22.05kHz,  $\pm$ 0dB

THD + Noise: <0.00015%

Separation: Infinity

### **Video**

Output: Analog R, G, B, Sync, 1.0Vp-p  
IBM VGA Compatible

Frequency Response: 10Hz-15MHz, -3dB @ 15MHz

Horizontal Frequency: 31.469kHz

Vertical Frequency: 59.940

Active Pixels: 768 x 484 (690 x 457 with  
overscan)

### **General**

Dimensions WxHxD: 17.5 x 17.2 x 4.4

Power Consumption: 132W (nominal voltage)

Power Requirement: 90-132 VAC, 47-63 Hz

### **FroxWand**

Dimensions (WxHxD): 4.5 x 6.5 x 4.5

Battery Requirement: 1.5V AAA batteries  
(x4-EN92 or equivalent)

## **ACKNOWLEDGEMENTS:**

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## **CREDITS:**

**In-Home FroxSystem:** Nester Residence, Monroe, NC **Installation:** Innovative Systems, Charlotte, NC

**Photography:** William Faulkner Studios, Atherton, CA **Agency:** Mansfield/Gherini, Santa Barbara, CA

**Production:** Photolith, Santa Barbara, CA; Thomson Lithograph, Fremont, CA

All on-screen pictures and graphics shot directly from actual FroxVision images.



*We hope this brief introduction to Frox has stirred your imagination.*

*Mere words or photos, however, cannot describe the full impact of the FroxSystem – our home theater products must be seen and experienced to be truly appreciated. To that end, a select network of custom installation dealers has been authorized to present the FroxSystem to you at your convenience.*

*We at Frox, and our professional dealers and installers, stand ready to discuss your individual entertainment needs – a personalized approach that is paramount to all of us in the creation of your ultimate home theater experience.*

*Thank you.*

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