

# AUDIO HORIZONS

New Ideas In Professional Audio From Martinsound

NAB Las Vegas 1999

**Martinsound**  
Helping You Stand Out

## Add Surround Sound To Your Facility

The 5.1 format seems to be everywhere we turn.

Most movies feature 5.1 channel sound, music and music/video disks are now offering 5.1 channels, and Digital TV is struggling with source material and distribution methods for 5.1 channels of sound.

So how do we conveniently control multiple sets of 5 speaker channels plus a subwoofer? And how do we check for compatibility when playing surround material on stereo or mono equipment? The answer is MultiMAX, an incredibly versatile Surround Sound Multiformat Monitor Controller.

In film applications MultiMAX offers the ability to monitor up to four of five 8-channel sources. This permits monitoring of the master recorder input or play-back buses and up to 3 stems of dialog, music or effects.

Recording studios are finding MultiMAX to be an instant solution for projects that require surround monitoring. Monitor systems can be quickly assembled and calibrated, and an optional remote control provides the full functionality of MultiMAX at the mixer's fingertips.

*by Joe Martinson - President and CEO  
Joe led the MultiMAX team that developed hardware and software that can monitor just about everything.  
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**Also see these Audio Horizons Fall '98 articles:**  
MultiMAX: "Do Surround Projects" page 4

**Audiomate:**  
"Escape the Semi-Pro Pigeonhole" page 9



**New MultiMAX remote control can be located in or on your mixing console and provides access to all MultiMAX functions and controls.**

Mastering facilities such as Master Mix in Nashville appreciate the convenience and comprehensive functionality of MultiMAX as they quickly shift from one format to another. Television networks find the MultiMAX to be very useful in audio post production suites generating surround sound for commercials and programs.

We also expect to see MultiMAX used throughout the TV distribution chain for monitoring decoded mezzanine-level multichannel programming. Other applications of MultiMAX include DVD mastering, product QC and multimedia and game production.

**Option for Dolby Surround EX™**  
Just when we thought the design of MultiMAX was finished, along came the new Dolby surround format that adds a rear center surround channel - Dolby Surround EX™. We now offer an upgrade for MultiMAX that can fully control the additional rear channel. The modifications utilize part of the circuitry that

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## ForMAX™ Flops Formats Fast

If a project comes in the door with a track layout

that doesn't conform to your standard, you can rewire or repatch; but what about the client coming in tomorrow?

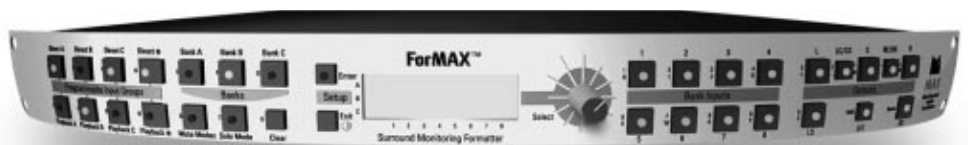
Its impossible to quickly accomodate non-standard channel assignments and multiple surround formats with connector panels and patchbays. Although some formats have fixed channel assignments, busy facilities need a more flexible way to connect consoles and recorders to MultiMAX.

Recognizing the realities of surround sound facilities, Martinsound introduces ForMAX, a Surround Monitoring Formatter.

Continues on next page

*by Shawn Micheal - Product Development Specialist  
Shawn has been intimately involved in the development of Flying Faders, MSS-IO, MultiMAX and ForMAX.  
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**Products mentioned in this article:**  
ForMAX, MultiMAX  
**Article summary:**  
ForMAX gives you instant recall of formats, setups, and reassignments. Remote control options create a full featured dubbing console monitor system.



**Up to five ForMAX units can be connected to one MultiMAX for a total of 120 Direct and 120 Playback inputs.**

# Neotek Consoles Surround Great

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## Yes, Martinsound's Neotek brand consoles sound great.

That's the main reason our Neotek Elite II console was chosen by the NBC *Tonight Show* to provide the mix of the show's live band. Our sound was also a driving force behind rock music engineer/producer Steve Albini's choice to purchase his second Neotek console, an Elite II equipped with a Flying Faders fader automation system. (for more about Flying Faders see the back cover.)

The Elite II with Audiomate moving fader automation now accommodates an option to motorize both the large and small faders on each channel. Thanks to the Elite's ability to split the equalizer to serve the main and monitor paths simultaneously, motorizing both faders doubles the effective size of the console for overdubbing and mixing!

What many potential customers don't realize is that Neotek consoles Surround Great. Surround sound is nothing new on Neotek consoles. Our post production dubbing console, the Encore, has full surround mixing and monitoring. The same is true with our ADR/Foley console, the Essence. Twentieth Century Fox uses two Essence consoles for ADR and one for Foley on TV shows like *The Simpsons*, and *NYPD Blue*, and on major theatrical releases.

Our MultiMax Surround Sound Multiformat Monitor Controller came to life to satisfy people requesting a rack mount version of the Neotek surround-capable monitor module found in the Elite console. So whether you need a production or post production console, check us out. We have you surrounded.

*by Chris Walsh - Vice President of Sales*  
In addition to his sales experience, Chris is an accomplished producer, recording engineer and guitarist.  
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**Also see these Audio Horizons Fall '98 articles:**  
Elite II: "The Value of A Console" page 8  
"Escape the Semi-Pro Pigeonhole" page 9  
MultiMAX: "Do Surround Projects" page 1  
RMS: "Control Your World" page 3



Essence Neotek Console



Martinsound RMS

### RMS

The RMS Recorder Monitor System provides confidence monitoring of an array of multitrack recorders and reproducers. Several post production facilities have added the RMS Recorder Monitor System to their machine rooms. The system can provide monitoring of Input, Sync and Repr signals for up to sixteen 8-track recorders.

Installations at Disney, Todd AO Bundy, and Universal Studios include the new RMS remote control. The remote control permits access and

control of all machines in the system from a single 3 1/2" by 19" portable panel.

The built-in programmable digital sine wave and pink noise test oscillator functions are so useful that our customers asked us to make a buffered version of the test signals available for external applications.

This new Oscillator Buffer option provides a balanced oscillator output that is available even when no tones are being fed to the recorders attached to the RMS. ■

## Continued...

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### Add Surround Sound... from front cover

is normally available for the Lc and Rc channels in 7.1 formats. The setup menus allow selection of either Surround EX or 7.1 mode, but not both modes simultaneously



A 7.1 speaker setup

### Euphonix offers MultiMAX

Just before show time Euphonix has announced that MultiMAX will be offered as a factory option on their CS3000, and will be displayed in their booth at NAB. ■

### ForMAX Flops Formats... from front cover

ForMAX, a companion product to MultiMAX, is a simple and cost effective way to instantly reassign any mix bus, or its associated track, to any of eight monitor positions. With 24 mix bus inputs and 24 recorder return inputs, ForMAX gives you individual Direct/Playback selection for each input of the 24 In by 8 Out crosspoint summing matrix.

Up to five ForMAX units can be connected to Multimax for a total of 120 Direct and 120 Playback inputs! The LCD display shows all of the assignments, as well as providing access to the various Setup Menus. You have the freedom to create, store and instantly recall many different Formats, Reassignments, and Setups.

Adding the optional ForMAX Paddle Switches to your console and the Machine Control Interface to your recorders creates a

full featured dubbing console monitor system. The Record Paddles and their associated Direct/Playback Paddles can operate individually or in user assigned groups. Advanced Mute and Solo features are included, providing exceptional functionality.

Whether formatting a multichannel mix, or monitoring several submixes or stems simultaneously, ForMAX makes it a snap. Combine MultiMAX with the power and control of ForMAX and you have a superior 'picture mixing' solution that costs far less than the competition.

ForMAX is the next step in Martinsound's ongoing commitment to surround sound solutions. Whatever your surround sound problem, give us a call. We are here to surround you with support. ■

# Mic Preamps and EMT Upgrades

**Martinsound**  
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## The MSS-10 mic preamp delivers awesome sound.

But you don't have to rely on our word that the Martech MSS-10 is the world's most natural sounding mic preamp. Listen to what some satisfied customers are saying:

*"The MSS-10 has clarity & detail without being brittle. It just sounds so good through the entire spectrum."* Randy Coppinger – DCV Studio

*"Foley has unique demands. The MSS-10 captures the subtle nuances and ambiences."* Randy Singer – Paramount Studios

*"In voice over there is nothing to hide behind. The MSS-10 is warm and clean, and sounds great."* John Driscoll – Voice Over America

*"The MSS-10 arrived for demo about half way through the vocals on our project. After we tested the MSS-10, we were so blown away with the incredible openness that we went back and recut all of the other vocals."* Bobby Croft – Grey Area Studio

*"Several of my expensive mics didn't sound very good with my top-of-the-line tube mic preamp, so I relegated them to the closet. After I got my MSS-10, I thought I would check out some of those exiled mics. With the MSS-10 they all sound great! I use them regularly now!"* Tom Keene – Tor-Wood-Lea Studio

*"I plugged in my 5 string bass and for the first time I felt the console shake when I played the low B string. I had an extra octave on the low end, and it was so solid."* Tim Jaquette – A to Z Studios

Why does the MSS-10 sound so good? We spared nothing in selecting the best components throughout the signal path. And what we couldn't buy, we designed and built ourselves, such as the custom input transformer and discrete transistor gain blocks. Even though there are no capacitors in the audio path, all other important capacitors are custom made for us! The assembly process is carefully monitored, with accuracy testing on the Audio Precision System One. But the final test is that a unit must pass a very critical listening test in the Martinsound Listening Lab. It doesn't get the Martech brand until we hear that natural sound Martech is famous for!



MSS-10 Mic Preamp



MicMAX Mic Preamp

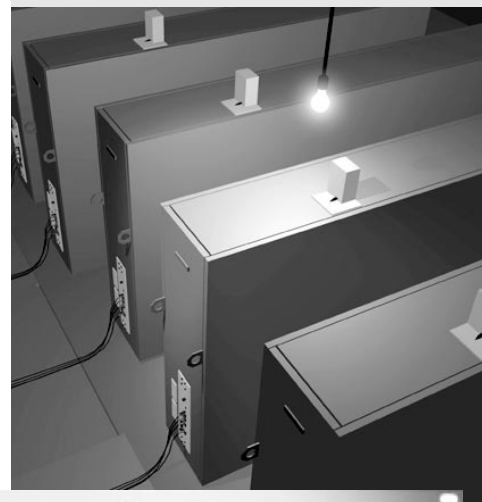
## MicMAX

### An Affordable Alternative

Not everyone has the budget to buy premium quality mic preamps like the MSS-10. An affordable alternative with excellent value is the Martinsound MicMAX. Many Neotek customers requested a stand alone version of the great sounding mic preamps of the Neotek Elite console. The MicMAX dual mic preamp offers all of the great sound of the Elite, and adds a few extra features. Selectable input impedance, a LED gain readout and a multi-color signal amplitude bargraph complement the excellent sound of the direct-coupled, fully balanced input circuitry.

Although MicMAX has been in development at Martinsound for quite a while, the first production run is now complete and units are available for customer deliveries.

**Also see these Audio Horizons Fall '98 articles:**  
MSS-10 "Deliver Awesome Sounds" page 7  
"Natural Sound Methodology" page 5  
MicMAX "Elite Mic Pre On Steroids" page 11  
EMT Upgrades "Helping You Stand Out" page 2



## EMT™ Upgrades

How quiet is the Martech EMT-140 Electronics Upgrade? A technician at one of New York's largest studios recently installed a kit on one of their plates. When he was done, he went to the control room to listen to the results. When he cranked open the monitor, he didn't get any residual noise from the plate. *"Must have done something wrong,"* he thought. *"But just in case, I'll throw a coat hanger down the hallway leading to the EMT plate."* He heard *clang, clang* in the monitor; everything was working just fine, yielding an incredibly low noise floor. (The dynamic range of the circuits in the EMT Upgrade is greater than 130 dB at 1 kHz!)

The popular Martinsound EMT Remote Control kit is fully compatible with the old EMT controllers, so units of old and new vintage can be used together. 📌

## Visit Us On The Web

[www.martinsound.com](http://www.martinsound.com) is a great way to find out

about Martinsound products. We are currently adding detailed technical information in PDF format for many Martinsound products. Included are block diagrams, connector pinouts, interfacing schemes, physical dimensions and application information. 📌



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### Ways to contact Martinsound

Visit our website: <http://www.martinsound.com>  
Send e-mail to: [sales@martinsound.com](mailto:sales@martinsound.com)  
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Call us on the phone! (800) 582-3555

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# Martinsound Knows Automation

**Martinsound**  
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Flying Faders™ is the world's most requested fader automation system.

Martinsound is the original developer of the Flying Faders moving fader automation system sold by AMS Neve. Martinsound continues to manufacture custom Flying Faders systems for sale by AMS Neve.

## Recent deliveries by AMS Neve include:

*Fox Films*, Century City, CA - SSL5000 (The Fox system sets a new record with 118 moving faders). *Castle Oaks*, Calabasas, CA - Neve 8038. *Water Music*, Hoboken, NJ - Neve 8088. *Harbor Sound*, Saugus, MA - Neve 8108. *Big Zone Recording*, Philadelphia PA - API 2448. *Paramount Scoring Console* upgrade from 72 to 96 channels.

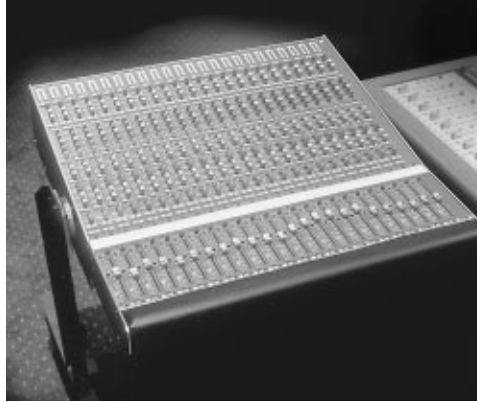
## Technical Training for Flying Faders

Martinsound recently completed a series of Flying Faders Technical Training classes in Los Angeles, New York City and Nashville. In addition to the local techs in each host city, students were drawn from San Francisco, San Diego, Chicago, Toronto, Philadelphia and Memphis. The course includes information on the architecture of Flying Faders, detailed descriptions of all the circuits, demonstrations of the many built-in test and diagnostic procedures, and recommendations for fader maintenance.

by Dale Manquen - Senior Vice President

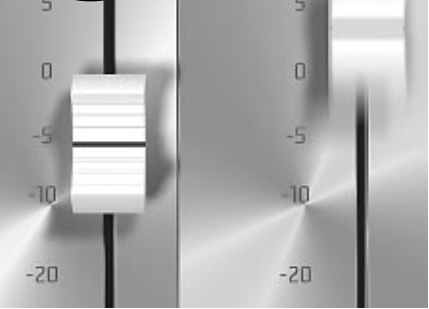
*Dale has been Flying Faders product manager for its entire history. He contributes regularly to the Flying Faders users group.*

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Also see these Audio Horizons Fall '98 articles:  
ACX: "Handle Bigger Projects" page 4

Audiomate:  
"Escape the Semi-Pro Pigeonhole" page 9



## ACX

Automated Console Expander is alive and well

When Martinsound introduced the ACX Automated Console Expander, we didn't realize how unique this product really is. Many of our clients are now fully committed to the concept of expanding their existing consoles with our versatile Flying Faders equipped sidecar.

The first installation took place over a year ago at Todd AO's Radford Scoring Stage in Studio City, CA. Their ACX has earned a solid place in the control room and is now used on virtually every session. They frequently move the ACX off to the side for the composer to use for mixing his synth guide tracks. The automation ties the composer's cue track mix to the live tracks without burdening the scoring console and scoring engineer.

Dark Horse in Nashville has built their ACX into a permanent extension of their Trident 80 console, boosting the number of channels from 48 to 72.

Village Recorders has 3 studios equipped with Flying Faders. The small size of the ACX permits them to expand consoles that fill almost the entire width of the control room. Adding more buckets on the VR console was not an option due to these space restrictions.

Signet Sound has 3 Neve V-Series consoles that were frequently expanded by renting an ACX from Martinsound. Purchasing their own ACX will guarantee availability - something that Martinsound can not always promise due to the popularity of the rental ACX units.

Cherokee Studios has a Trident A-Range console equipped with Flying Faders and expects to add Flying Faders to their other A-Range. The versatility of the ACX was a key factor in their choice. They also are considering using the ACX with a Flying Faders computer as a stand-alone automated sidecar to expand their GML-equipped third console.

Also, a major Hollywood film studio has been renting the ACX/computer combo to run

as an independent automated sidecar with their non-Flying Faders dubbing consoles.

## New ACX options now available

Three popular options have been added to the ACX Automated Console Expander. A Loop-Through option permits the output buses of the host console to be fed to the ACX summing amps, providing a convenient external sum of the ACX and host console programs. This option is especially useful for quickly interfacing with a variety of consoles.

For customers with Neve V-Series consoles, a Bus Injection option provides the appropriate interface circuitry and connectors to inject the ACX bus outputs directly into the main buses of the host console. This avoids tying up any jacks on the patchbay.

A third Bus Splitting option permits selectively splitting the 8 multitrack buses to provide two independent banks of outputs - one from the modules on the left of the console, and another from the right hand modules. For a 32 channel ACX, this would provide either two banks of 16 input modules with 8 buses each in the split mode or the normal full array of 32 channels with 8 buses.

## Audiomate

### Automation for the Budget Conscious Studio

Audiomate is available in both Standard and Lite versions, depending upon the model of motorized fader included in the system (the standard version includes an option for a motorized 60mm fader).

All new systems are shipping with the PowerPC version of the program that accommodates up to 128 faders.

Audiomate installations continue at a brisk pace. Recent systems include Four Seasons Media Productions in St. Louis on their API Legacy, Haven Productions and Monterey Post in Los Angeles, Plantain and 33 1/3 Recording in New York and Alpha Omega in the San Francisco area. 🏠



## Flying Faders Users' Group

Provides communication among Flying Faders facilities  
Martinsound is a major contributor to the bulletins and newsletters distributed to Flying Faders facilities by the Flying Faders Users' Group. The free Web-based service provides news on hardware and software topics that are of interest to studio owners, recording engineers and technical/maintenance staffs.

The martinsound.com website hosts web pages devoted to the Flying Faders Users' Group. Featured are archives of all Users' Group newsletters, bulletins, and an enrollment form for joining the Group.