What's new in Pro Audio

THE GUIDE TO THE LATEST PRODUCTS AND EQUIPMENT

ISSUE No2 July 1997

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We invite YOU to compare our mixers to any other.
Let your ear be the judge!

READER RESPONSE No. 001

BEHRINGER
Your Ear Is Our Judge

Welcome again

We have been encouraged by the overwhelmingly positive response we received to the first issue of *What's New in Pro Audio*. In a generous demonstration of good will, many readers have taken the time to write and congratulate us on the concept and its execution. It seems that our initial observation about the industry requiring a single-stop-shop publication that presents a comprehensive guide to the latest products was absolutely spot on. As is often the case, it is the simplest ideas that are the most instantly appealing and enduring.

Our free rapid response enquiry service puts users in direct contact with the relevant manufactures in a manner that simply cannot be equalled short of travelling to every trade show on the planet.

This second issue takes in all the major product announcements made since the beginning of this year although we've also dipped in and picked up on some of the more fringe releases that sneaked out towards the end of last year.

1997 got off to a scorching start with some significant product releases — some predictable, some completely out of the blue — at NAMM, Frankfurt, NAB and the European AES Convention in Munich. Indeed, Munich was one of the most exciting pro audio gatherings for many years and revealed an industry that was beginning to look to the future after a bad dose of recession-inspired back covering.

We've continued with our ten broad categories for equipment types as these have proved to be specific enough to comfortably group products together but loose enough to mop up all the related pieces of technology. The Two-Track section has been expanded to take in media, storage and personal mastering gear as the march of computer related technology cannot be resisted. Similarly we've included some real "nuts and bolts" components in the Ancillaries section.

One of the trends that has emerged is the phenomenal level of activity in outboard and hard disk related areas while the brevity of the "Multitrack" section speaks for itself.

Enjoy the second edition of *What's New in Pro Audio* and I'll see you all again by the time the winter has set in.

Zenon Schoepe
Executive Editor

What's new in Pro Audio

EDITORIAL
Executive Editor: Zenon Schoepe
Production: Avant Garde
Contributors: Simon Croft, Zenon Schoepe, Dave Foister
Publishing Editor: Joe Hosken

ADVERTISEMENT SALES
Executive Ad Manager: Chris Baillie
Ad Manager: Phil Bourne
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Advertisement Production: Angela Skinner
PA to the Publisher: Lianne Davey
Managing Director: Doug Shuard
Publisher: Steve Haysom

Miller Freeman Entertainment Ltd, 8 Montague Close, London Bridge, London SE1 9UR, UK. Tel: +44 171 620 3636. Fax: +44 171 401 8036. E-Mail: cz73@cityscape.co.uk

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Miller Freeman
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What's new in Pro Audio 3

Published December 1997 Featuring all the new equipment, updates and enhancements straight from the IBC 97 and AES Convention in New York

How Rapid Response works

PRODUCT LED NEWS STORIES

RAPID RESPONSE MECHANISM

Crown adds SLM

The IQ PIP SLM module is designed to provide full audio system control and load monitoring for IQ PIP2-compatible amps. With a built-in sine wave generator and data acquisition system for the measurement of load impedance and test voltage levels for real-time testing, the unit fits onto the back of amps without extra cabling and connects via the Crown Bus port. The K series amps launched last year are now available in 13 different colour finishes.

Crown 434

Cloud

Designed to live long under continuous high power levels, VTX Series power amps from Cloud Electronics include Dynamic Clip Protection to ensure that amplifier and speaker can withstand hard use without damage. The range consists off the VTX750 (375W/channel), VTX1200 (600W/channel), and VTX1500 (725W/channel).

Cloud 435

New ATC SPA2-150 standalone power amp

ATC's SCA2 preamplifier, designed as a front end to the company's active loudspeaker and studio monitor systems, is now joined by a standalone complementary power amplifier, the SPA2-150.

The same building blocks as are found in the amplifiers built in to the loudspeakers go to make up the new power amp, and as it uses the same discrete gain blocks as the SCA2 it claims the same transparency as the preamp. Its grounded source FET output stage delivers over 200W and quotes distortion components at more than 95dB down under any conditions.

The two channels are twin mono units complete with separate mains transformers. The output stage of each is monitored by microcomputer and a limiter prevents amplifier clipping and protects drive units. Limiter operation is indicated on the front panel, and over temperature and DC offset monitoring is also incorporated.

ATC 436

BSS Audio

The Omnidrive Compact (FDS-355) is a less expensive and more compact unit than the original Omnidrive processor on which it is based. A single unit can be used FOH as a 2-way stereo controller, or in tandem with a second unit for 5-way systems. In monitoring applications, its delay, limiting and EQ functions can eliminate hot spots on stage.

Multiple blocks of EQ are available on inputs and outputs, enabling the unit to handle tasks such as system EQ, horn compensation and room contouring. The limiter is said to provide faster response and the new unit sports 24-bit AD, plus 20-bit DA conversion. The 50 internal memories can also be stored on a PC.

BSS 438

EAW MX8600

Designed to optimise the performance of EAW loudspeakers the MX8600 close coupled digital signal processor incorporates a number of exclusive EAW authorised parameters and factory presets. It supplies dozens of programmable memories, protected by a security lock-out function, while MIDI permits external control and linking of master and slave MX8600s via a personal computer.

Each unit has two inputs and four outputs with one output configurable as a direct subwoofer output. Each output has 3-band EQ , delay, digital level controls and variable high and low pass filters that can be set for 12, 18 or 24dB/octave slopes.

EAW 439

SLT 200 B, the new **SINGLE MOSFET** power amplifier.

With our unique **SINGLE MOSFET** technology you get unparalleled performance and hear much more of your music. One SINGLE MOSFET replaces 4 or 5 normal transactions running in parallel. You get better sound quality because there is no mismatch of transistors. Also having 5 transistors working in parallel increases the chance of a breakdown, compared to having just one **SINGLE MOSFET**.

The new B version has a larger power supply, giving 2 x 200 Watt in 8 Ohm and a solid 2 x 400 Watt in 4 Ohm. (bridged 1 x 800 Watt in 8Ohm).

Passive cooled without noisy fan. Built to last with a 10 mm thick front-panel, 2 mm steel plate rust protected (galvanised like Porsche and Audi) painted black. Gold plated XLR inputs, and large goldplated binding posts with extra space for heavy duty loudspeaker cables. Switchable sensitivity 0dBu, +6dBu or +12dBU.

For distribution and sales inquiries please call Ole Lund Christensen. Telephone int +45 56 14 85 85 Telefax int +45 56 14 85 83 or write to AMPspeaker, Hedevej. 20A, DK-2680 Solroed Strand, Denmark.

AMPSPEAKER®

CyberLogic Power Channel

CyberLogic's NC-005 Power Channel amp provides a lower power, pure Class AB channel (185W/8 ohms, 375 W/4 ohms when fitted in existing NC-407, 412, 807 or 812 Power Frames) and is well suited for powering high frequency drivers. It is also available with its own Power Frame as a complete system - the NC-805 (265 W/8 ohms, 525W/4 ohms) provides a cost-effective power source, designed to handle medium-sized loads efficiently.

The Power Channel is designed to complement CyberLogic's line-up, which includes 4-channel (the NC-407 and 412 Power Frames) and 8-channel configurations (the NC-805, the NC-807 and the NC-812 Power Frames). In addition, CyberLogic has also recently introduced a range of Install Options for its NC-800 Series 8-channel Power Systems, in the form of new Power Frame, Rear Connector Panel and Control Panel options, tailored specifically for fixed installations.

CyberLogic 437

KT processor

The DN8000 loudspeaker processor combines a 5-way crossover with digital multiprocessing applicable to FOH systems with delayed stacks or multizoned installations. The device has 32 user memories, two inputs and five fully configurable outputs.

Outputs have a choice of Linkwitz-Riley, Butterworth or Bessel crossover with slopes selectable between 6dB to 48dB/octave. Channels have high and low pass filters, HF and LF shelving, two parametric bands, phase alignment, limiting, compression and noise reduction. Delay is programmable in 21 microsecond increments to one second on the inputs and 300ms on outputs.

KT 440

READER RESPONSE No. 002

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READER RESPONSE No 003

Peavey

Peavey has announced a DSP package for sound reinforcement and additions to the power amplifier range.

The MediaMatrix X-Frame is a digital, parallel processing package based around three Motorola 56002 chips. It comes with a graphically based software package so the X-Frame can be set up from a laptop which can then be removed.

X-Frame comes equipped with two inputs and four outputs in the analogue domain, as well as two AES/EBU IOs. The IOs can be expanded to 10 inputs and 12 outputs.

The front panel has eight preset buttons and a data knob, the function of which can be decided during the initial set-up.

The CS1800G is a professional power amplifier delivering 1800W RMS into 4 ohms bridged or 900W per channel into 2 ohms. Said to be based on patented and improved Class G topology, the CS1800G has a quoted THD of less than 0.04% 20Hz-20kHz and weighs 35 pounds.

A new power supply for Peavey's CS800S amp is said to improve sound quality through a Patent Pending damping circuit.

Peavey 441

Hafler P1000

Hafler's P1000 1u amp is based on Transconductance Active Nodal Amplifier topology which operates the output stage with its full voltage gain and allows the input stage to operate from a low voltage regulated supply. The signal is then shifted up in level to the high voltage section by the driver stage which forms an active node at ultrasonic frequencies. An additional system computes the allowable device current for the device voltage and clamps the gate drive when the actual current exceeds this value.

Hafler 442

beyerdynamic Blueprint

New from beyerdynamic is a 1u stereo power amplifier delivering 50W per channel and designed for studio monitoring and high quality sound contracting installations. The Blueprint uses convection cooling with a large heatsink, and employs thermal integration of all critical semiconductors to ensure optimum performance at all output levels.

Inputs are balanced and unbalanced, output is on Speakons and for the contractor a VCA option provides remote level control.

beyerdynamic 443

Dynacord

The Xa2600 stereo processor amplifier has been designed for active 2-way operation and delivers 2 x 700W for low frequency and 2 x 600W for high frequencies. Each channel has Thermal Brain Circuit protection and APC-controlled limiters. Other circuitry protectsagainst thermal overload, HF, DC or short circuit in the amp's output stage and the device also has Back-EMC-Protection.

Dynacord 444

Finally...a multi-channel amplifier that addresses the real needs of the commercial sound market.

Apogee's new MA Series provides multiple channel amplification with a host of features for paging and foreground music applications.

Hotels, theme parks, convention centers, transit stations and offices will benefit from the MA amp's space and cost saving design.

MA amps use high performance switching technology; each of the eight channels delivers 200 watts into 4 ohms (less than 0.1% THD).

All channels have *balanced inputs*, *clip protection*, LEDs to show *fault* and *signal presence*, and built-in *automatic spare amp changeover*. Channels may be switched "off" and removed or added without powering down the mainframe. A master input overrides all selected channels when activated, for normal or emergency paging. An optional card provides paging priority, zone switching and background music switching.

Input levels are adjustable in 0.5dB increments by DIP switches, for perfect repeatability. A *Cue* switch on each channel allows monitoring of speaker outputs at line level. Multiple channels may be summed on the cue bus.

An optional card provides speaker supervision with fault detection, using a subsonic carrier tone. An accessory chassis provides eight 70V or 100V output transformers. Also available: a rack mount battery backup unit, and an interface to Apogee's AmpNet™ control software, allowing monitoring and control of all channels from a remote computer.

Contact us today for a detailed MA Series data sheet!

APOGEE SOUND INC.

2180 S. McDowell Blvd. • Petaluma, CA 94954
Tel: (707) 778-8887 • Fax: (707) 778-6923

READER RESPONSE No. 004

Sifam meters

Addressing the trend towards the classic designs of yesteryear, the AL20SQ VU meter has a distinctly retro styling. The black phenolic moulded front has a glass window and the rear body mounting houses a taut-band core magnet movement, said to be inherently self-shielding. A pear-shaped pointer and conventional arc scale on a translucent buff background complete the assembly.

Sifam 445

PR&E Cabinets

Pacific Research & Engineering's QuikBilt modular studio cabinetry features high pressure laminate on work surfaces and 3/4-inch-thick, thermal-fused melamine panels with 45-pound particle board substrate on lower cabinet casing which provides long-term resistance to scuff, wear, and structural stress; Mod-eez invisible fasteners which increase structural integrity and eliminate protruding screws; front and rear air ventilation and Euro-clip hinges with quick-release cam fasteners for easy installation.

The furniture modules are shipped flat packed via UPS and an entire studio cabinet can be easily assembled in a few hours. The roll out of QuikBilt is part of the company's initiative to expand its domestic business in middle to smaller markets and in Asia.

PR&E 446

Wheatstone

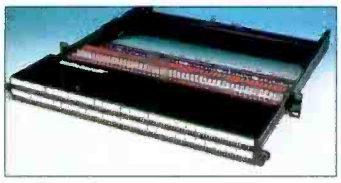
Wheatstone produces a range of custom furniture for radio stations, which the company describes as "highly stylised" and "based on a curved style of architecture". The U-shaped control room counter array of the new line includes a sweeping curve toward the interview area, and the studio interview/host table is kidney-shaped. The furniture includes a substantial amount of storage space, as well as generous wire raceways, and hinged wire termination panels.

Wheatstone 447

Signal Transport Project Patch

Signal Transport has introduced Project Patch TRS, a 1/4-inch lower-cost variant of its existing bantam studio wiring system. Like the TT version, the new patchbay features rear-panel connectors for easy installation and configuration, with each group of eight top and bottom jacks having its own gold-plated multipin connector. Jumper cable options allow normalising, parallel wiring and daisy-chaining without soldering or crimping.

Signal Transport's Project Patch bays are now available in a 96 point bantam version, the PP-96-2.



The company has a system of Studio Kits using the patchbays. The purchaser specifies the console and recorder to be used, and the appropriate patchbay system is then supplied ready to connect, using custom Belden cables and Switchcraft connectors.

Signal Transport 448

Maycom ISYS for Windows ISDN

Maycom Automation Systems has introduced a Windows ISDN audio application for live bidirectional communication. Known as ISYS, it uses MPEG2 Layer II audio compression and can be run on a Pentium PC (100MHz or higher). The system requires the ISYS software, an ISDN board, which is included in the price, and a Digigram PCX audio board type 9 or 11.

The Windows user interface means it can run on any suitable PC and interface with studio automation software to play audio direct from the computer's hard disk. It can also log incoming communication information such as receiving time and audio settings. The system is compatible with Telos Zephyr and CCS CDQ Prima codecs, and besides its flexibility its main advantage is cited as its low cost compared with existing hardware codec systems.

Maycom 449

RS Components

A new range of PCB mounting, miniature illuminated push-buttons is available with several options. Separate bulb terminals allow illuminated, non-illuminated and indicator only configuration. Momentary tactile, momentary non-tactile and alternate tactile types are manufactured. The lens caps are available in flat or concave tops which can be easily removed for printing or engraving. Space constrained applications are aided by the short body of the switches.

R S Components 450

Trakker trolley

A "multi-use all terrain lightweight folding equipment trolley", Trakker has straps to keep equipment in place and wheels which can be removed for cleaning. The shelving system is designed so that the trolley can be folded flat for compact transportation, even with the equipment in place. Options include a 12V 17AH battery and charger, rain cover, folding chair, umbrella and script light.

Ravencourt 451

C4

The SPDA1 RCA to XLR adapter connector with a built-in format converter from C4 enables low-cost and easy adaptation of digital consumer units to professional standard. It converts the 16-bit SPDIF to AES/EBU including level, impedance and data structure matching. The adapter includes a PLL jitter reduction stage and can be phantom powered with 9V DC (8.5-12V) from the balanced XLR output in addition to unbalanced powering.

C4 452

B&R

A series of rotary coded switches is now available, including dip-diode switches, dip-CS switches, digital coded dip switches and splash-proof designs. Advantages to the series are said to include small size, high mechanical strength and suitability for harsh environments.

B&R 453

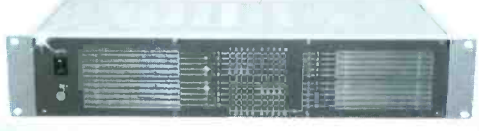
Philex

A set of DTI (UK)-approved 49.9MHz wireless headphones is now available. Weighing 250g, the units have an advantage over infra-red units, as they do not require line of site for operation. They are said to have a range of 30m.

Philex 454

Analog?? – Digital!!

The GHIELMETTI Digital Distribution Amplifier – easy handling like *in* the analog world!



SPECIFICATIONS

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Transformer balanced

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READER RESPONSE No. 005

Neutrik Z Series

Neutrik has introduced its next generation of XLR connectors. The Z Series is designed to be extremely fast and easy to assemble and to be highly rugged. All the essential parts are enclosed by a heavy duty rubber covering, and the gold-plated contacts use Neutrik's patented tuning fork principle and are available in solder and Mil-Crimp versions.

Neutrik 455

Sondor

Developed in co-operation with a US specialist in soundtrack restoration, a new headstack for the Sondor mag film reproducer is said to perfectly reproduce shrunken and heavily warped film. A special sprocket arrangement is designed to accommodate up to 4% shrinkage, while wow and flutter is said to be reduced to 0.05%.

Sondor 456

Tecdis

Illuminated displays from Italian manufacturer Tecdis include a family of low-cost units ranging in size from 16x1 to 40x4 lines of characters. The displays are also available with LED backlights and EL B/C for high contrast backgrounds.

Tecdis 457

BASF

BASF now has a range of adhesive tape with printed backing available for 3.3mm audio and 12.2mm video formats. The tapes are printed with different numbers from zero to 10 for ease of identification.

EMTEC 458

Devlin

Devlin Electronics has introduced a range of digital rotary switches with embedded codes, enabling different output configurations to be set for each switch position. Applications include mobile radio channel selection, test equipment and general instrumentation.

Devlin Electronics 459

BBE Sound

The DI-10 active direct box can be powered by 9V or 48V phantom supplies. It has a switchable speaker simulator and will accept signals of mic, line and speaker level.
BBE also offers a compact version of its Sonic Maximiser. The model 262 can be operated from the front panel or remotely.

BBE 460

Neutrik NYS-SPP

Designed as a cost-effective 1/4 inch jack stereo patch panel, the NYS-SPP has 48 sockets front and rear. The manufacturer cites two major advantages to its design.

First, the PCBs connecting the front and rear sockets are held securely and cannot be pulled out by the weight of the rear cables. Secondly, the jacks are colour coded grey and black to give visual indication of normalled and non-normalled selection. Switching between the two modes is achieved by unfastening the PCB and rotating 180 degrees.

The patch panel comes with two white designation strips and a sheet of preprinted labels. These can be used with the front and rear panels, which are also prenumbered for ease of identification.

Neutrik 461

Connectronics Clean-Act

Connectronics has now reached production with a multipurpose power supply unit designed to eliminate the outboard mains adapters becoming common with some rackmount processors. The Clean-Act provides a range of power outlets including several individually-selectable regulated DC voltages of either polarity, low voltage AC and 240V mains, all with filtered mains input and protection against voltage surges. Both 1u and 2u versions are available, the larger having four unswitched and eight switched IEC mains outlets, eight 9VAC supplies and four independent DC sources switchable for 6V, 9V or 12V at 1A. Both models show DC status and fuse failures on LED front panel displays.

Connectronics 462

TRT Tubistor

Picking up on the return to favour of the valve, a new device from Tomorrow's Research Today combines the best of tubes and transistors. The Tubistor is claimed to sound like a tube, but to act electrically and physically like a solid state device, and TRT states that Tubistors are available as exact replacements for all solid state devices. This means that any existing device can be converted to tube characteristics by having its key transistors replaced with Tubistors. TRT hopes to see manufacturers bringing out Tubistor versions of existing designs and individuals retrofitting the devices to their favourite equipment.

TRT 463

Lumberg

Lumberg has launched the 45321 series of high quality DIN connectors. The SPV version is back-mounted using a panel mounted female socket and the mounting is secured using a copper/zinc nickled ring nut, making insertion and withdrawal of a flying chassis plug simple.

Lumberg 465

Deltron boxes

A range of modular stage boxes accommodate various panels which can be fitted to meet the customer's specific requirements. The top mounted panels are available with cut-outs for XLR connectors or in plain versions for specific adaptation.

End panels are available to accommodate EDAC, Harting and Litton multiway connectors, with the further option of fitting a top panel to the end of the box for a different range of configurations.

Deltron 464

Neutrik mains

Neutrik has introduced a new connector range designed to handle mains in the style of the Speakon system. The three-pole PowerCon connector comes in two versions for inlet and outlet, and can handle 20 Amps while meeting international and European safety standards. The ground connector makes before the other two, and all contacts are designed to prevent arcing when the plugs are disconnected under load.

Neutrik 466

APT codecs

APT has two new apt-X based codec systems. The BCF 256 Broadcast Communications Frame is designed to deliver full duplex FM quality stereo digital audio up to 15kHz over permanent links such as STLs and permanent studio networks. It incorporates an X.21 serial bitstream data interface and an integral terminal adapter for fail-safe ISDN backup should the normal link fail. There is an optional digital IO, and besides apt-X the unit supports Layer II and G.722 coding.

The NXL 256 Broadcast Network Transceiver is a 1u cost-effective codec also designed for fixed links. It uses apt-X exclusively, and has provision for connection to an external terminal adapter for assured programme continuity.

APT 467

Equi-Tech

The Model ET1R is the company's smallest balanced power AC distribution unit and has a power handling capacity of 1000W. The company claims use of the units can produce noise-free video and lower error rates in digital broadcast and recording. The device has ten outlets and can handle 8.3 Amps and has EMI/RFI filtering and super-isolator options.

Equi-Tech 468

Web audio

Bringing its expertise to the webcasting market, Telos' Audioactive Internet Audio Suite is a hardware and software system that makes it easy to provide real-time and stored audio streams over the Internet. Using enhanced MPEG Layer 3 coding, CD quality is claimed.

The system offers everything needed for a complete Internet Audio broadcast chain including encoding systems, a "transmitter" or audio server, and easy to get receivers or players - client software applications that run on listeners' computers.

Key to the Telos approach is a dedicated hardware encoder, which offers more processing power than systems that are bound to general purpose CPUs.

Audioactive requires PC soundcard and Power Mac Websurfers to down load a free player to listen to live Webcasts. Sample Audioactive at http://www.audioactive.com.

Telos 469

Alcatel Cable

Starquad cable is now available in Multiquad versions of 6 or 12, where each quad configuration is individually screened and jacketed. Each quad within the overall jacket is numbered. Also available are Alcatel multicore snake cable - which contains a steel wire to help it withstand frequent coiling and uncoiling - and FST audio installation cable, available in PVC and low smoke zero halogen versions.

Wadsworth Electronics 470

Head wipe

CQ Videohead and Audio head cleaner has been developed specifically for the task and comes in a sachet containing an isopropyl alcohol impregnated lint-free tissue which is claimed to be kinder to heads than cotton buds.

The tissue has a pure water-free impregnation combined with a proprietary cleaning agent which evaporates rapidly after use.

G&G 471

Cable Roller

The Cable Roller from Household Innovations is a device for coiling up lengths of cable without disconnecting either end. The device has two halves which are first aligned, before placing the cable across the slot. Winding the two halves in opposition coils the cable around an inner core. Cable can be released by pushing a button to separate the two halves or by winding in the opposite direction.

Novem UK Ltd 472

Radio furniture

Media Engineering has a planning, design and installation service for radio stations running alongside its manufacturing division, and has launched the MEFUR range of studio furniture. This is described as easy to install and modular so it can be adapted to fit any control room and is the result of requests from radio clients. The company adds that office furniture is not ideal because there is nowhere to hide cables while custom-built furniture can be expensive. The MEFUR range includes tables, desks, chairs, meter bridges and storage units.

Media Engineering 473

CONSOLES

Tactile M4000

Tactile Technology has added an expansion control surface to its M4000 digitally controlled analogue mixing system. The M415 is similar to the main control surface but without the output controls, and carries all the input controls including gain, EQ, routing and motorised faders. As the system can handle up to 240 input channels, this expansion gives access to much more of the desk at one time. Joining it is a new high-resolution meter bridge, and a video interface allowing all the information from the desk's LCD display to be shown on a monitor along with timecode.

Tactile 474

Alesis

Alesis' Studio 32 16-channel in-line recording console allows 16-track recording and monitoring. The 4-group design has XLR inputs and 3-band equalisation with parametric mid on each channel. The unit also offers six aux sends, and mute and solo functions. Balanced and unbalanced connection is available, with most sockets using TRS jacks.

Alesis 475

ADgear

Designed to control the process of compositing vocal tracks, the Over Quality TG-81 Tranger is an 8-channel track arranger. Patched into the insert points of the desk or between the program source and the mixer, the Tranger uses cross-fades for quick but quiet switching.

The device is controlled from a powered remote keypad, which has a five metre cable.

ADgear 476

AMS Neve

Allowing six Tascam DA-88/38 transports to be connected to any AMS Neve MADI-equipped console via a single port, the company's TDIF/MADI interface can be used with a coax or optical fibre link.

The multiple transports can be treated as a single machine with up to 48 tracks, as independent machines, or as machines linked but offset against each other.

Supporting 44.1kHz and 48kHz sampling rates, the interface also allows a standard TDIF machine to be used as a 24-bit 4-track recorder. Each of the six ports can be independently selected for 24-bit operation.

Synchronisation for the interface can be selected from one of four sources: TTL word-clock input; AES/EBU sync input; the MADI port, or the first TDIF-1 port. The front panel of the 1u device provides status indication. Processing delay is described as negligible and it can be used in series with any other AMS Neve MADI processor such as the Delay System or MADI-SRC multichannel sample rate conversion unit.

AMS Neve 477

PR&E's Integrity

Pacific Research & Engineering has introduced a digital broadcast radio console called the Integrity with reset and the option to automate parameters. Integrating an analogue sub-system, the desk is able to keep on air if the digital path fails.

The desk has two microphone inputs; four microphone/line selectable analogue inputs; ten stereo digital line inputs (which can be switched to analogue); four mix-minuses (two telco feeds and two remote feeds with IFB); two programme buses with analogue and digital outputs; programmable recorder selection outputs; control room and studio monitor controls; built-in talkback-IFB microphone; computer control of desk configuration (set, save, recall) and status identification and diagnosis; Session-Scheduler software; 16 individual 10-character alphanumeric channel ID; DSP voice processing; fader start logic; multiple sample rate operation; and optional Remote Line Selector channels.

PR&E 478

Allen & Heath

The WZ20:8:2 is an 8-buss mixer with eight tape returns and a mixdown switch to instantly route the tape returns through the input channels.

The eight mic/line channels have balanced XLR or jack inputs, with an insert point and eight auxiliaries on individual controls. Equalisation is 4-band with sweepable mids and there is an EQ in/out switch. Six stereo line inputs have 2-band equalisation and access to all six auxes. Channels are all fitted with 100mm faders.

Other features include stereo cue and effects routing, on-board oscillator and talkback.

The system, which may be freestanding or rack mounted, uses vertical circuit boards and the A&H QCC connector, allowing reconfiguration of the desk without exposing the internal circuitry.

A&H 479

Soundcraft

A 24-channel expander is available for the Ghost and Ghost LE mixers. The channel strips are identical and the MIDI mutes also integrate with the main mixing system. The manufacturer points out that adding an expander to a 32-channel console will provide 120 separately controllable inputs on mixdown.

Soundcraft 480

Yamaha

Now available for the 02R digital mixer is the CDE-AE-S 8-channel AES/EBU interface card. This allows a single card to perform a function that previously demanded two slots on the mixer - for example, an 02R can now handle 16 channels of IO in this format.

Yamaha 481

Korg

Korg has announced price cuts to its Soundlink digital recording system, of which the centrepiece is the 168 RC recording console. The 16:8:2 digital desk has two ADAT inputs and eight analogue inputs, two internal effects and sequencer-driven automation. Prices have also been cut for the audio interface and converters.

Korg 482

Soundtracs

New to the Topaz range of mixers are three desks in 4-buss configuration. The Topaz 12:4 and 14:4 are available with rackmount kits, while the 24:4 is freestanding.

The manufacturer claims that with Analogue Devices1 SSM2017 ultra-low noise input amplifiers, the consoles outperform any competitive product on signal/noise as well as sonic quality. All three desks have solo and mute on every channel, two stereo effects returns and 3-band equalisation.

Soundtracs 483

Otari

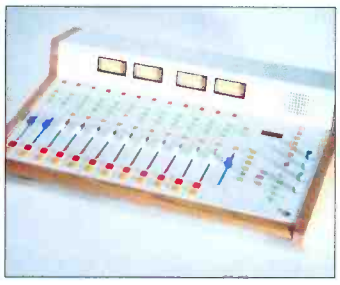
The company's Lightwinder LW10 multichannel stage and console master fibre optic cable link connects between stage and mixing consoles and is significant in not requiring a computer. Up to 64 channels (48 in/16 out) can be handled by one LW10 using dual transmission lines. Each audio input channel on the stage master has its own mic preamp, phantom power and mic/line gain trim pot. The system has been supplemented by the Lightwinder Colosseum with new features such as PC remote controlled functions of the 8-channel AD/DA modules, a 4-channel intercom module in addition to rear slots for 4-channel optional control data IOs.

Otari 484

Sony live

Suitable for live sound applications, Sony's SRP-V300 Series mixers come in 16, 24, 32 and 40 channel versions with four stereo channels as standard. The desk has eight auxes, eight matrix outputs, eight subgroups, 4-band EQ with variable low cut filter, and mute grouping. Mute group scenes can be directly recalled in 8 console keys with 128 scenes recalled via MIDI plus 8 via parallel remote terminal.

Sony 485



R-5 radio desk

Audioarts Engineering, a division of Wheatstone Corporation, has introduced the R-5 on-air radio console which the company claims is simple to install and does not require disassembly. Among its features, the R-5 has two pairs of Sifam VU meters for stereo program and audition, and all switches are LED illuminated for easy identification and low maintenance. It includes Audioarts' Simple Phone mix-minus feature, which simplifies a station's multiple call-in operations; full function tape remote controls; on/off button nomenclature; and four microphone preamps. The new console also provides electronic switching throughout and two inputs per channel.

Wheatstone 486

Barth unveils digital radio station

RBarth has shown an EELA Audio digital mixing system called D.MAX which combines digital mixing with matrices.

The system is aimed at a number of broadcast applications, including a journalist's workstation, sound transfer and the smaller self-op on-air studio.

Up to 32 mono or 16 stereo signals, analogue or digital, can be routed digitally to either two or six control channels, providing one or two stereo outputs. There is a 7 x 24 stereo routing system on the output and 32 x 12 router on the input stage input. A range of converters and digital IO modules are available, allowing the system to be tailored to individual requirements.

A modular approach also extends to the control surfaces, which are compact desk units containing faders and switches. More unusually, D.MAX has a serial interface which enables a high degree of automation via a modem. According to the company, the serial connection allows remote control via a 9600 baud modem and even with this low bit rate, there is the capability to access all functions without time limitations. As a result, remote station automation can be extended to the point where it even includes the level meters to DIN specification over a standard telephone line.

Barth 487

Libra Live

The Libra Live digital console has been specifically designed for broadcast production but is based on the Libra music recording desk architecture. Using the same processor and IO hardware as Libra, dynamic automation and music recording controls have been replaced with live production functions such as the ability to switch in a back-up microphone.

Input channels can route to console-wide output, auxiliary, mix-minus and sub-group busses. VCA style groups can also be created and each input channel, group or output can be configured with filters, EQ, dynamics and inserts in almost any order.

AMS Neve 488

Moving mix

Professional Sound Corporation's M8 portable audio mixer has been specifically designed for feature film and other types of location sound recording.

Features include eight inputs, condenser microphone powering, 3-band parametric EQ, high pass filters, fully adjustable compressor/limiters, prefade listen, individual channel line output and insert points, complete channel assignment and panning controls to the four main and two auxiliary outputs.

The output section contains four main outputs, two auxes, four selectable headphone feeds, reference oscillator, bargraph meters, built-in stereo monitor speakers and communications monitoring.

PSC 490

PR&E AirWave

Pacific Research & Engineering's low cost AirWave on-air broadcast console has a mainframe that is fully enclosed welded-steel but modular. Optical-isolated logic interfacing for remote and machine control is built into the modules for plug and play interconnection to other studio equipment.

Other standard features include: a preamplifier module containing five high-performance microphone preamplifiers with phantom power, balanced patch points, a stereo program-1, program-2 and monaural output module, a dual remote line selector module, a time of day clock and event timer, and an easy to use telephone module.

AirWave also provides headphone system monitor facilities for control room, studio, co-host and guests; four illuminated Sifam meters; assignable A/B input control logic; built-in cue-speaker and operator's room headphone amplifier and built-in studio talkback microphone.

PR&E 489

DDA CS8

Designed for FOH use, the CS8's modules are in blocks of eight but individual PCBs can be removed with the rotary knobs still attached. In addition to eight subgroups and eight aux sends, the CS8 has six matrix outputs and is fitted with DDA's Spatial Image System (SIS), as used on the CS3, which claims enhanced positioning, with stronger stereo image regardless of the listener's position in the auditorium.

DDA 491

SWISS QUALITY BROADCASTING

MEMIX is a professional analog mixing console for broadcasting studios. Easy to operate, MEMIX offers all essential functions: no confusing knobs, switches or displays – just faders and pushbuttons, which can be programmed with any desired control function.

The modular MEMIX system consists of 4-fader operation modules, a 3-fader plus master module (both modules acting as remote control devices only), a 19"/4U chassis with all electronics and a power supply unit (19"/1U).

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READER RESPONSE No. 006

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Polarity switch.

Aux sends 1-4 level controls & pre/post switch. Separate level controls for each Aux. Pre/post switch for Auxes 1-4 selects pre-fader/pre-EQ or post-fader/post-EQ operation.

Aux sends 5-8 level controls & pre/post switch. Again, separate level controls for each of Auxes 5-8. Different, though, is the pre/post switch. On Auxes 5-8, you can select pre-fader/post-EQ or post-fader/post-EQ.

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Hi Mid EQ. Sweepable from 500Hz to 15kHz, with a 1.5 octave bandwidth. Separate controls for ±15dB boost/cut and frequency. (Fixed at 3kHz on stereo aux return channels)

Lo Mid EQ. Sweepable from 45Hz to 3kHz, with generous 1.5 octave bandwidth. Separate controls for ±15dB boost/cut and frequency center. (Fixed at 800Hz on stereo aux return chs.)

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Low Cut Filter. Sweepable from 30Hz to 800Hz, 12dB/octave. (Fixed at 150Hz on stereo aux return channels.)

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L-R & Center assign switches. Ditto for L-R and Center mixes.

100mm log-taper channel fader. New logarithmic faders provide consistent fades throughout their travel, and feature a dust-shielded super smooth design.

Solo button and LED.

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- **4 extra stereo line channel strips** for aux returns, which include: 4-band equalization with 12kHz Hi shelving EQ, 3.5kHz Hi Mid EQ, 800Hz Lo Mid EQ and 80Hz Lo shelving EQ, plus 150Hz fixed low cut (high pass) filter at 18dB/octave, low cut in/out switch, other features same as mono channels.
- **8 submix section bus strips** feature 100mm log-taper faders, "Air" EQ controls, center & L-R assign switches, pan controls, mute & solo switches with LEDs.
- **Center-mounted master section** includes fader link L/R switch, center master fader, center solo + LED, L&R/L-R master level faders, L&R solo switches + LED indicators.
- **Independent L/R/Center bus assignment.**
- **On-board snapshot group muting** with external computer control capabilities.
- **12x4 matrix mixer** w/Center, L & R input controls, matrix mute button + LED, matrix master level control, and matrix solo + LED.
- **40 (or 56) mono channel strips** with Mackie's renowned high-headroom/low-noise discrete mic preamps, polarity switches & sweepable 30–800Hz low cut (high pass) filters at 12dB/octave.
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- **Talkback section** includes talkback mic input (phantom powered), assign switches for Matrices A-B-C-D/Aux 1-4/Aux 5-8/Ext./L-R, talkback level control, solo level control, program level control, talk button, recessed phones jack (there's one on the rear panel, too), and 400 Hz/pink noise source with separate level control (uses talkback routing switches).
- **All inputs & outputs fully balanced** (except RCA tape inputs & outputs).
- **Each channel** has rear panel XLR mic & TRS line in jacks, insert with separate send & return (balanced), & direct out.
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READER RESPONSE No. 007

Dateq

Dateq's Onyx mixer is said to be convenient to use as the heart of an audio system in health clubs, bars, small discos and conference rooms. Each of its six channels is fitted with two separate inputs with channels 1 and 2 having mic inputs with separate gain controls and 2-band EQ plus voice activated signal priority with an adjustable ducking threshold.
The device has two independent stereo outputs for zoning with 3-band EQ and PFL on each.

Dateq 492

Allen & Heath

The DR128 digital processor comprises 12 inputs and 8 outputs as a crosspoint matrix and is targeted at the installation and contracting market.
The unit's processing includes graphic and parametric EQ, gate and compressor and parameters and configurations can be saved in 16 internal memories. User interface is via 12 definable soft keys and the system is capable of operating as eight 31-band graphic EQs for on-stage monitors or as a controller for multichannel surround sound panning.

A&H 493

Rane

The CP64 commercial processor has four stereo line level inputs and two paging mic/line inputs. Individual equalisation is provided for the two zones, one of which is mono and the other stereo. An interface is provided for the ZR1 remote which selects programme input and adjusts level, as well as the PR2 remote which selects zones. The system's priority logic supports independent zone paging while supporting emergency paging as well.

Rane 494

KAM

GMX One is a DJ mixer that is the first in a new Gold series of products from the company. The Gold designation is said to signify superior build quality and long-term reliability. The 6-input unit accommodates mic, three turntables and two line level devices. In place of audio faders there are VCAs, which have been used in order to reduce the possibility of noise or crackle.

Lamba Sales 495

VADIS modules

New modules for the Klotz Digital digital mixing console include a compressor/limiter and an extended buss selector module. Additionally the DSP Master module can now be assigned to any channel to give a more compact design.

Klotz Digital 496

Wheatstone desks

The newly designed TV-1000 console for live TV includes a combined version of the company's Bus-Minus and eight Mix-Minus systems to feed IFBs and has claimed "unlimited" input source to buss routing capability with logic-follow for each source. It also provides comprehensive, intelligent monitoring capability with its Mute-Link feature, which enables foolproof studio speaker muting and an on-air tally display.

Using the TV-1000's Mute Groups, operators can quickly move from live "on-line" control to network feeds. Every input module and master output on the console has dedicated metering and the instant recall of switch settings and fader positions is possible via Wheatstone's Event computer, an optional feature on the TV-1000.

Other standard features on the desk include: individual channel compressor/limiters, user-defined aux send configuration (stereo or mono), stereo sub masters, comprehensive solid state switching, alphanumeric displays for each monitor module's selected source, European logic functions and machine control ports with fader start, lighted tallies for all switches, and "On Console" power supply status indicators.

Wheatstone's SP-8EX television audio console features a source selector overbridge which expands the console's source capability to over 300 inputs. Like its predecessor, the SP-6, the SP-8EX incorporates many of the features of the company's higher-end desks such as a complete switch selectable internal logic structure, mix-minus capability, and group muting. The SP-8EX also has a dedicated relay-operated machine control port for overseas clients, as well as traditional US-type opto-isolated control ports.

Wheatstone 497

Lawo MC82

The MC82 digital desk is aimed at applications that require direct channel-oriented access to audio parameters. The desk builds on the features of the existing MC series digital desks from the company and sports the central audio facilities of the MC80 board. The MC80 and MC82 are designed for broadcast music and drama recording, postproduction and OB use while the MC50 is targeted clearly at on-air and small production use.

Lawo claims its desks are unique in combining high-end digital signal processing with the modularity and flexibility more commonly associated with analogue consoles and are programmable through a signal matrix language which can accommodate application specific functions, such as remote control and signalling, without resorting to software modifications. The modularity permits custom physical layouts to be realised.

The MC80 can handle 120 input channels, 32 auxes and 32 masters with a digital switching matrix for 660 audio signals. Processing involves 18 and 20-bit AD and DA converters, custom sampling rate converters and 32-bit floating point maths and the new desk can be demonstrated with surround sound because the system can provide 16 separate outputs.

Lawo also has a digital audio analyser in the DAA11 which can check MADI and TAXI links using optical and coaxial wiring.

Lawo 498

MEMIX upgrade

Swiss company Media Engineering has introduced a number of upgrades to its recently launched MEMIX digitally controlled analogue mixing console which is designed to appeal to the radio broadcast market.

The console can now be configured as a single three fader master operating unit or can be extended with the addition of up to four add-on operating units each containing four further faders.

The operating units, which can be table-mounted, are connected to a central chassis handling all of the electronics. The design of the desk, together with its sound quality and its ease of operation have made it popular with a number of radio broadcasters.

Media Engineering 499

Studer D940

The Mk.II version of the company's D940 digital mixing console has been upgraded with D19 MicADs microphone preamps. Analogue line inputs and outputs have been upgraded by D19M series modules with 20-bit AD and 22-bit DA converters. New also is the dual ADAT optical input card and the AES/EBU input card with optional Sampling Frequency Converter. The Mk.II features an ergonomically improved surface with green alphanumeric displays instead of the red ones as well as integrated control of local analogue and digital monitor selection matrices in addition to the existing digital DSP monitor router.

Studer 500

GPS features

GPS has introduced the D/ESAM Model 230 Digital Edit Suite Audio Mixer, and added several enhancements to the D/ESAM 400. New features in both models include fader range, user configuration registers, and D/ESAM IV protocol. The D/ESAM 230 also now offers send outputs, monitor sub-mixer, D/MEM write protection, Ace editor interface, and a BNC connector option. User benefits include programmable fader range for increased control when applying level changes, greater monitoring flexibility, enhanced editor control, more variety in edit systems supported, increased IO flexibility, and improved security for facilities that share use of D/ESAM 230 and 400 mixers by different users.

Graham-Patten Systems 501

Martinsound

The new RIF series of assignable mixing control surfaces are designed specifically to be used with digital audio electronics manufactured by theatre sound specialist Level Control Systems.

The combination of the two products creates an automated, multichannel mixing system with a tactile work surface which may be mounted remotely from the processor rack. A high speed serial link is used between the two.

The RIF controller houses a user selectable number of servo-driven faders, laid out in single or double banks of eight. The system, which also incorporates automated switching functions, can handle multiple speaker arrays.

Neotek 502

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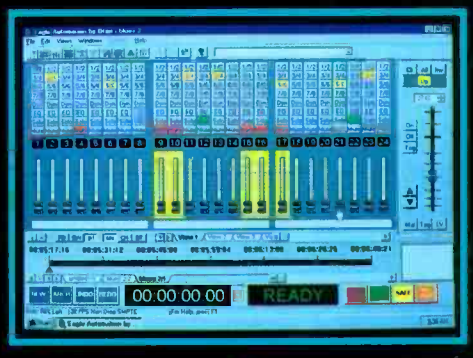

STATUS

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READER RESPONSE No. 008

Mandozzi

Mandozzi has developed a digital audio routing switcher with integrated mixing functions. The system is said to be extremely reliable due to the duplication of the control processor, audio buss, clock generator and power supply units. Interface boards are available for digital and analogue signals. The mixer control surface has two assignable faders, while processor functions are handled by a central control section.

Mandozzi 503

Omnya

The AM40871 is a low cost automixer-preamp aimed at small systems with up to seven mics and 3 aux line inputs. It can drive one or more power amps. Inputs include individual phantom power, two insert connectors for EQ and feedback suppressers, and circuits that count and limit the number of open mics to keep output level constant.

The AM40881 is a modular automixer with 8 mic channels which opens engaged mic channels only and keeps the others closed while keeping the mixer's output level at its preset value when the number of open mic channels changes.

Quattroitalia 504

Mackie Digital 8 Buss

Configured as a 48:8:2, Mackie's long awaited digital 8-buss has an in-line assignable architecture. There's an assignable rotary controller per channel and 100mm touch-sensitive moving faders arranged to the left of a "Fat" channel strip control section containing more channel hard controls plus transport keys for machines and automation.

The console will ship with 24 channels of analogue tape IO with three 8-track optional digital interfaces for MDMs available. Twelve balanced mic/line channels are provided with direct outs plus 12 additional balanced line inputs, 12 auxes per channel, 4-band parametric EQ with switchable variable high/low shelving and a sweepable high pass filter, dynamics processing and eight separate group buss outputs with fader and mute automation.

Converters are 24-bit, 64x oversampled DACs and 20-bit 64x oversampled ADCs. 8Mb of RAM is standard as is a floppy disk drive and 500Mb of hard disk for storage and retrieval of the fully dynamic UltraMix II automation data. A built-in modem permits DSP files and operating updates to be loaded.

Other points of note include a well equipped talkback section, built-in meter bridge with dynamics indication and a multilingual help facility. Connecting up an SVGA monitor displays automation and DSP parameters with additional control afforded by a mouse and keyboard.

Mackie 505

Cinemix

CineMix is D&R's answer to the ever increasing demands placed upon the high-tech video, film, and post production studio world of the 90's.

A recording console with superb electronics, true dual input path design, complete recall of all digitally controlled routing and switching functions, True Left / Center / Right / Surround panning and two highly automated signal paths per module, CineMix is about to change the way you view recording consoles - forever.

The D&R design team has broken new ground with CineMix's digital recall "ARM" system and its associated master controlled and automated status switching. Easy to understand, yet incredibly powerful, ARM revolutionizes the way consoles are designed. Its full six channel automated output section and fully integrated automated Joysticks are a pleasure to work with. Add to this D&R's reputation for hand-crafting consoles of the highest order, you will begin to understand how the power of CineMix will change the way your productions take place in the future.

Whether you're mixing for record or CD production, audio for video post, or six channel surround for film, the D&R CineMix will fit the most difficult demands placed on the mixing engineer of the nineties.

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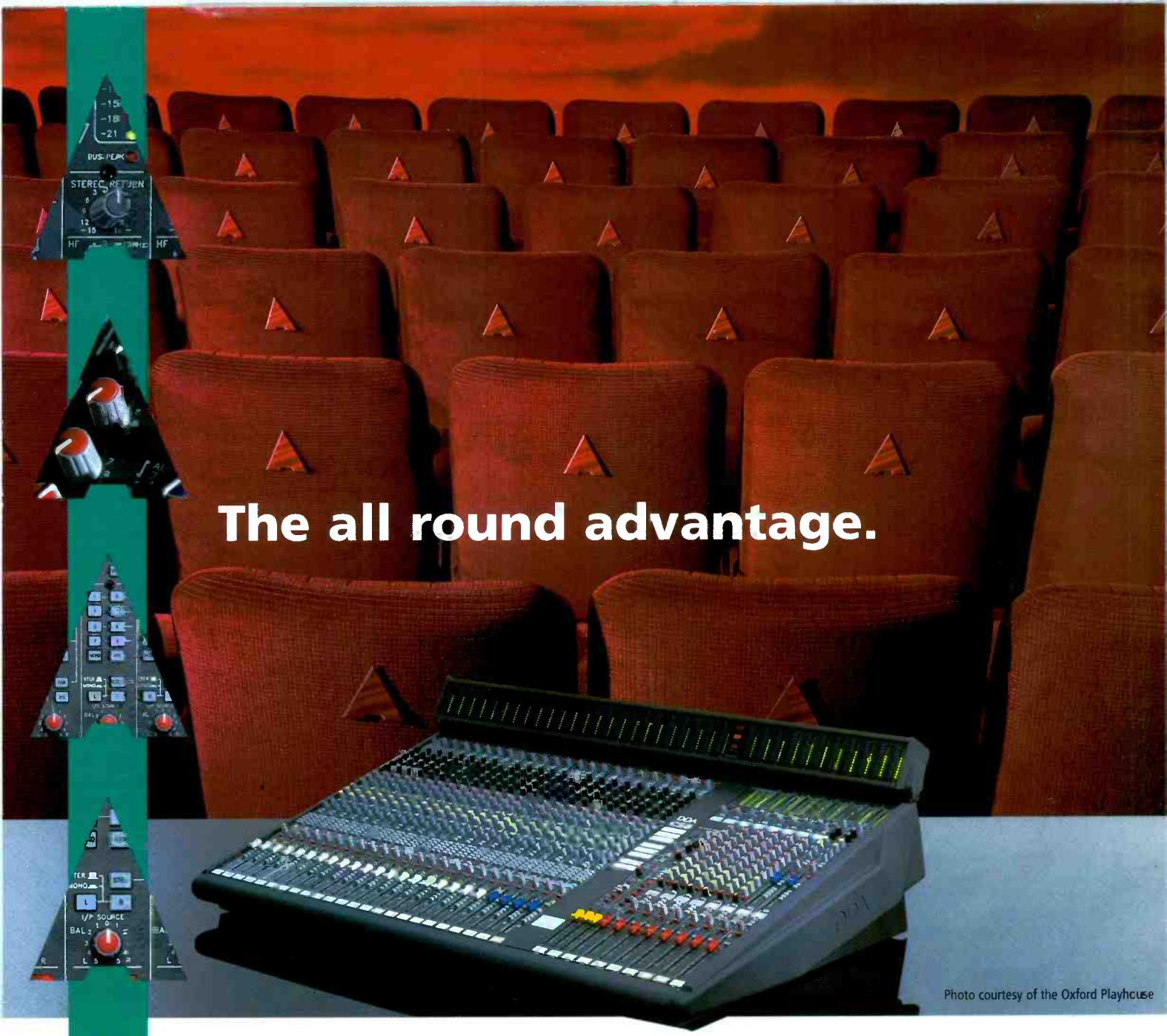
READER RESPONSE No. 009



The all round advantage.

Photo courtesy of the Oxford Playhouse

Take advantage of the high quality, multi-purpose DDA CS8. Designed for demanding fixed installations, theatres and touring applications this large format, audio mixing console fits any bill.

Available from the compact 16 input to the fully blown 48 input, the CS8 offers complete flexibility at an advantageous price.

All the DDA CS8 consoles contain some unique and very distinctive features such as: *4 stereo inputs,* capable of accepting Mic or Line level signals in stereo or mono forms; *8 Sub-Groups,* allowing fully flexible control of the overall sound stage; *6 Matrix Outputs,* giving the flexibility required for theatrical fixed installations; *2 Stereo Returns,* enabling stereo effects returns to enter the console without using up valuable full mono or stereo inputs; *Console Linking,* any two CS8 consoles can be electronically linked for those special large events; *Tactile - Colour Coded Pot Knobs,* specially designed by DDA to allow easy use and instant positional identification; *VU/LED Meterbridges,* available as an option for flexible and accurate input and output signal monitoring.

In addition to all these outstanding features, the DDA CS8 incorporates the unique Spatial Image System™ (SIS), designed to give you and your audience a clear sound advantage.

So, wherever you are mixing, you can be totally confident that you have an all round advantage with the CS8.

THE DDA ADVANTAGE CS8

READER RESPONSE No. 010

SPATIAL image SYSTEM

A DDA ADVANTAGE S.I.S™

CS8 Features

- 16 to 48 input versions
- 4 Stereo mic/line inputs as standard
- Individual routing to Groups
- Solo in place Mode in addition to PFL and AFL
- 4 band swept mid EQ on all inputs
- Console Linkability
- Optional VU/LED meterbridges
- 6 Matrix Outputs as standard

16, 24, 32, 40, 48 Channels

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Calrec S2

Calrec's S Series broadcast console has grown in capabilities with the introduction of the Mk.2. Chief among the additions are VCA fader groups and VCA master control, surround routing and processing in 3-track, 4-track or 5-track formats with surround panning on all channels. Surround processing and VCA group faders are optional, and without them the dimensions of the Mk 1 are retained, giving very high control density for compact applications such as OB vehicles.

Calrec 506

Sony processor

Equipped with 20-bit linear AD/DA converters and using 96kHz sampling frequency the 2-channel SRP-F700 digital processor offers channel dividing, equalisation and delay for sound reinforcement systems.
The device has five processing modes: four for channel dividing and one for signal distribution and each mode has EQ, feedback suppression through graphic/parametric EQs with notch filters, speaker delays and a limiter.

Sony 507

Behringer

Behringer has four new mixing systems: two in the Eurorack series and two in the Eurodesk range, the largest being the Eurodesk MX3282 split console for live and recording applications. This provides a total of 32 channels with eight subgroups and eight aux busses, while at the other end of the scale the Eurorack MX802 has four mic and four line inputs, 3-band EQ and stereo output.

Behringer 508

55 Series

New features for the 55 Series console include VCA faders and input preselectors. The VCA fader system now provides 8 group master faders to supplement the 8 audio groups which the 55 desk may already be fitted with. The input preselectors constitute a snapshot automation system which controls the mic and line level inputs to the console.

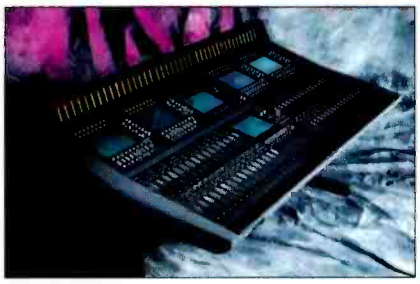
AMS Neve 509

Spirit Powerpad

With a width of only 22cm, the Spirit Folio Powerpad powered mixer has a stereo 30W amp that can be switched between mix and monitor outputs and ten inputs. It has four mic inputs, two stereo inputs, and each mono input has 2-band EQ, and a postfade aux send. Phantom power is switched globally, stereo inputs are equipped with switchable RIAA preamps and a 2-track return together with peak and VU metering, a headphones output and clip protect.

Spirit 510

Soundtracs digital desk



Aimed at higher profile music and postproduction studios, Soundtracs' DPC11 digital desk is in-line in appearance with 4-band parametric bell-shelf EQ, keyed and sidechained compressors and gates, 16 auxes and multiformat output bussing.

Worksurfaces will be in two sizes with 64 and 80 100mm motor faders, six colour TFT LCDs and 40-segment LED meter bridge. Like the Virtua, the system has a separate worksurface and converter rack and incorporates talkback and foldback to two studio areas and a multistem monitoring matrix.

Automation and machine control takes dynamic automation including EQ, snapshots and remote control of multiple RS422 and MMC devices. All mixing parameters, including input gains, will be resetable as will the bussing structure.

The board is based on Virtua core software but all-new hardware and will be available later in the year. The desk employs 24-bit sampling on the ADCs and is touchscreen driven with the promise of importing reverb algorithms into the system.

The company is understood to be talking to another manufacturer about the possibility of integrating hard disk recording into its digital desk products.

Soundtracs 511

Biamp Systems

The Advantage DLA-93 digital-logic automixer is designed to provide any combination of remote manual or automatic mixing functions without the need for an external computer. Each unit provides eight balanced mic/line inputs, plus an aux line input. Further units can be added via the expansion port.

The Advantage ANC-22 ambient noise compensator automatically adjusts sound system gain to compensate for changes in background noise levels. The mic/line input is fitted with 24V phantom power and the controller accepts mono or stereo input.

The Advantage PMX-84 programmable matrix switcher automates crosspoint switching for eight inputs and four outputs with 50 presets and 16 logic outputs. External control methods include infrared and wired wall-mount controls.

Biamp Systems 512

Seem's Seecor

Seem Audio has introduced the successor to the analogue audio rack used in the Seelect on-air assignable console. Seecor will replace the old unit, creating mixers that the company claims are more flexible and rely less on hardware while still dividing control surface and audio rack. Seecor is a self-contained 9U-high rackmount package, with a variable capacity depending on the configuration of DSP and analogue IO cards.

Asynchronous sources offer sample rates ranging from 8kHz to over 100kHz, which are dealt with internally, a process on which Seem currently has a patent pending. Above this the unit is capable of handling sampling frequencies up to and over 100kHz and has 32-bit maths with 24-bit output. Seecor lets users connect several control surfaces to the same rack and share sources.

Seem Audio 513

MTA 8-buss

MTA has launched an 8-buss version of the Series 900 desk called the 908. Facilities include 4-band swept EQ on all inputs, one mic and two line inputs on channels, eight auxes and channel auto muting.

Each input module has a track monitor section making it possible to monitor the send and return to 24 tracks. Monitor level, pan, mute and two aux sends are provided.

The 8-channel output section has 2-band sweep EQ, six auxes, 100mm group faders and bar-graph metering. Standard frame sizes of 24 mono and four stereo inputs or 32 mono and four stereo inputs are available.

MTA 514

D&R has plans

D&R will release a large format production console later in the year as the result of feedback from CinemiX console users in film, postproduction and music recording. The new desk will be available in different configurations to suit these three market sectors.

The console will feature dual in-line modules with two 4-band equalisers, 8-way surround panning on all inputs, recall on all pots and switches, 16 auxes, 32 group output busses, a master section with extensive monitoring options, machine control, two automated joysticks, a built-in VGA LCD, and monitor insert for interfacing with surround encoders/decoders. The desk has eight master output busses and is capable of handling all surround formats.

Options will include a stems/matrix module for surround monitoring, Powerfade motorised faders and virtual dynamics.

D&R 515

Valve desk

The VTC is a fully modular in-line multitrack mixer that offers the benefits of compact 8-buss design combined with TL Audio's valve circuitry which is employed in the channel, monitor, group and master signal paths. Available with 16 to 56 channels, options include an internal or external patchbay, fader and mute automation, a meter bridge and 8, 16 or 24 channel expanders.

Building on the success of the compact M1 and M2 boards, each VTC channel has 4-band EQ with fully parametric mids, one stereo and six mono auxes plus faders in the channel and monitor path. The master section has six stereo aux returns on 60mm faders, PFL/solo in place modes and two independent headphones feeds.

TL Audio 516

Midas XL200

Now available for the XL200 console is a 50-input MIDI mute package, with 128 scene memory. Configured as 42 mono and four stereo inputs, the package allows routing to any combination of 21 audio busses and incorporates a 13 x 8 matrix.

Ten additional mute groups are provided by the MIDI mute automation system. This can be used in conjunction with a MIDI sequencer to save 128 snapshots of mute and solo-in-place settings.

Midas 517

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Tel: +1 (213) 463 4444
Fax: +1 (213) 463 6568

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Tel: +81 (3) 5474 1144
Fax: +81 (3) 5474 1147

FRANCE
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Fax: +39 (2) 2622 4938

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READER RESPONSE No. 011

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READER RESPONSE No. 012

Rane engineered conferencing

Rane has introduced Engineered Conference Systems (ECS), a line of electronics for engineered and audio teleconferencing, distance learning, boardroom and courtroom applications, plus a new DSP multiprocessor, the RPM 26.

ECS is RaneWare RW232 software-controlled and features automixers, echo cancellers, telephone access (two/four wire), remote setup and diagnostics with password protection. It is a system rather than a selection of products, and was conceived as such from a field perspective.

The system is predominantly software programmed and controlled, using a serial port on a PC or Mac Power PC. There are currently five distinct products and others are slated for introduction this year. At the heart of the system is the Base ECB-6 unit which interfaces with all other ECS products and external devices. A dedicated automixer, the Mixer ECM-8, was designed for teleconferencing and distance learning. Each can accommodate up to eight sources, and six automixers can be used with a Base ECB-6 to give a total of 48 inputs.

The mixers interface with each other and the Base unit via a proprietary protocol. An optional ECA-1 echo canceller, can form an internal part of the mixer. The ECS-6 stereo option allows the Base unit to process stereo and mono signal sources while the ECT-1 telephone interface provides access between the telephone service and a control system such as AMX or Crestron, the Base unit and the programming computer. ECS integrates with other Rane products such as the RPE 228, equaliser and MA 6S multichannel amplifier.

The RPM 26 DSP multiprocessor contains all signal processing required between the mixer and amps in small to medium fixed installations. Using preprogrammed configurations and RaneWare software, the RPM 26 provides signal processing functions including high and low cut filters, compression, delay, crossover, parametric EQ, splitting, input summing, limiting, level control and sine wave or pink noise generation. It contains two analogue inputs and six analogue outputs and configurations and settings are stored in 16 internal, non-volatile memories, eight of which are contact closure accessible from the rear panel Remote Switch Interface (RSI) port. All 16 memories are accessible from RaneWare's Site Control Panel.

Rane 518

Soundcraft Series Five

Following numerous clandestine trade show appearances, Soundcraft has formerly announced its new FOH desk, the Series Five, which the company claims is its finest to date.

Available in sizes from 24 to 48 mono channels with an additional 4 mic/line stereo inputs, the desk has 8 groups, 12 auxes, sweepable high and low pass filters, LCR panning, 256 MIDI snapshot memories, 10 matrix outputs and 10 VCA groups. It also has a new power supply with a three-year warranty.

Soundcraft 520

Double debut

The AD144 mixer is designed for studio and outside broadcast use. Featuring four outputs and four auxiliaries and extensive monitor features, it is now available in standard 12-24 channel frames. An optional communications module is now also available.

The AD149 console for film and drama applications features two outputs and two auxiliaries, continuously variable gain, comprehensive switched EQ, channel inserts and limiters. This console replaces the AD062, offering more features in a smaller footprint. There are two levels of multipin options for fast setup and break down. Six-12 channel versions are available.

Audio Developments 521

Studer LDP

To assist the transfer of many channels of microphone level signal from the stage to the mixing console, Studer now supplies the D19 Long Distance Package which uses a single optical fibre cable to transport eight audio channels digitally over large distances in a scaleable architecture.

Remote controllable D19 MicADs are used on stage and MultiDAC 23-bit converters at the console position. The 8-channel digital signal can also be connected to Studer's D19M Dual ADAT input module and used in the digital form (MADI or AES/EBU).

Studer 519

Mix-Genie V2

Currently being tested is a new chip controlling the Mix-Genie automation section of the 3G Fireball automated live desk. In addition to storing and recalling all aux mutes, channel mutes, channel and group EQ enables, aux master mutes and all fader positions, V2 software permits independent MIDI control over each switch and fader for real-time fader and switch changes when running on a sequencer such as Cakewalk Pro Audio V6 which 3G recommends.

3G 522

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READER RESPONSE No. 013

Calrec digital X-series

Calrec has previewed its first all-digital desk called the X-series, aimed specifically at radio on-air/production. Many of its functions are screen-based which the company claims solves the compromises of creating a desk that can be used easily by a journalist or DJ but is still able enough to cope with fairly complex radio productions. The product is said to have emerged from the development line of the company's all-digital T-series desk.

Calrec 523

RDL Audio

Pro Mix mixing desks are now available in 8:2 and 12:2 formats, as well as the established 16:2 and 24:2 designs. Features include balanced XLR mic inputs with 48V phantom, balanced jack line inputs, 3-band equalisation, four auxiliaries and 16 on-board digital effects settings.

RDL Audio 524

Lamba

A 'scratch' style disco mixer, the GMX800 has three line and three phono inputs with gain and 3-band equalisation on each channel. Also in the design are beat indicators, selectable crossfade and a booth output.

Lamba 525

SSL Altimix

The Altimix digital postproduction system uses SSL's DiskTrack and Hub Router technology and incorporates new high speed proprietary digital processing. It combines an assignable control surface with dedicated, advanced audio editing with integrated video plus audio mixing tools for multiformat work.

Altimix provides instant access to stored audio and video though a shared multidisk array. The console surface features 24 assignable motorised faders in a channel/ group architecture. Dedicated control panels for all automated signal processing, routing and switching provide operator familiarity.

With up to 48-track recording and editing, expandable to 128 channels of disk recording with multi-user partitioning, features include automatic record take management, with 50 levels of undo, a multilevel take editor, and 48-track drop-ins with instantaneous playback monitoring and user settable advance record function. New editing commands include real-time clip auditioning and spotting, clip gain profiling and an advanced multichannel

feature set, with automation data dynamically linked to audio clips for repeatability through multiple editorial changes.

The Non Linear Digital Video Recorder uses graphical clip-based editing techniques with access to four selectable playback channels.

SSL 526

Yamaha

The first desk from the company's Taiwanese factory, the MX12/4 has eight mono inputs and two stereo channels feeding four subgroups. Balanced XLR mic inputs, digital reverb, 3-band EQ on input channels and a 7-band graphic equaliser are included.

Suitable for freestanding or rackmounted operation, the MX12/4 is claimed to have outstanding performance for the price, including low noise head amps and good RF rejection.

Yamaha 527

Behringer

New facilities have been added to Eurorack models MX2642, MX2804 and MX1602. All models now have mute LEDs and rackmounting mixers have input gain controls in place of switchable operating levels.

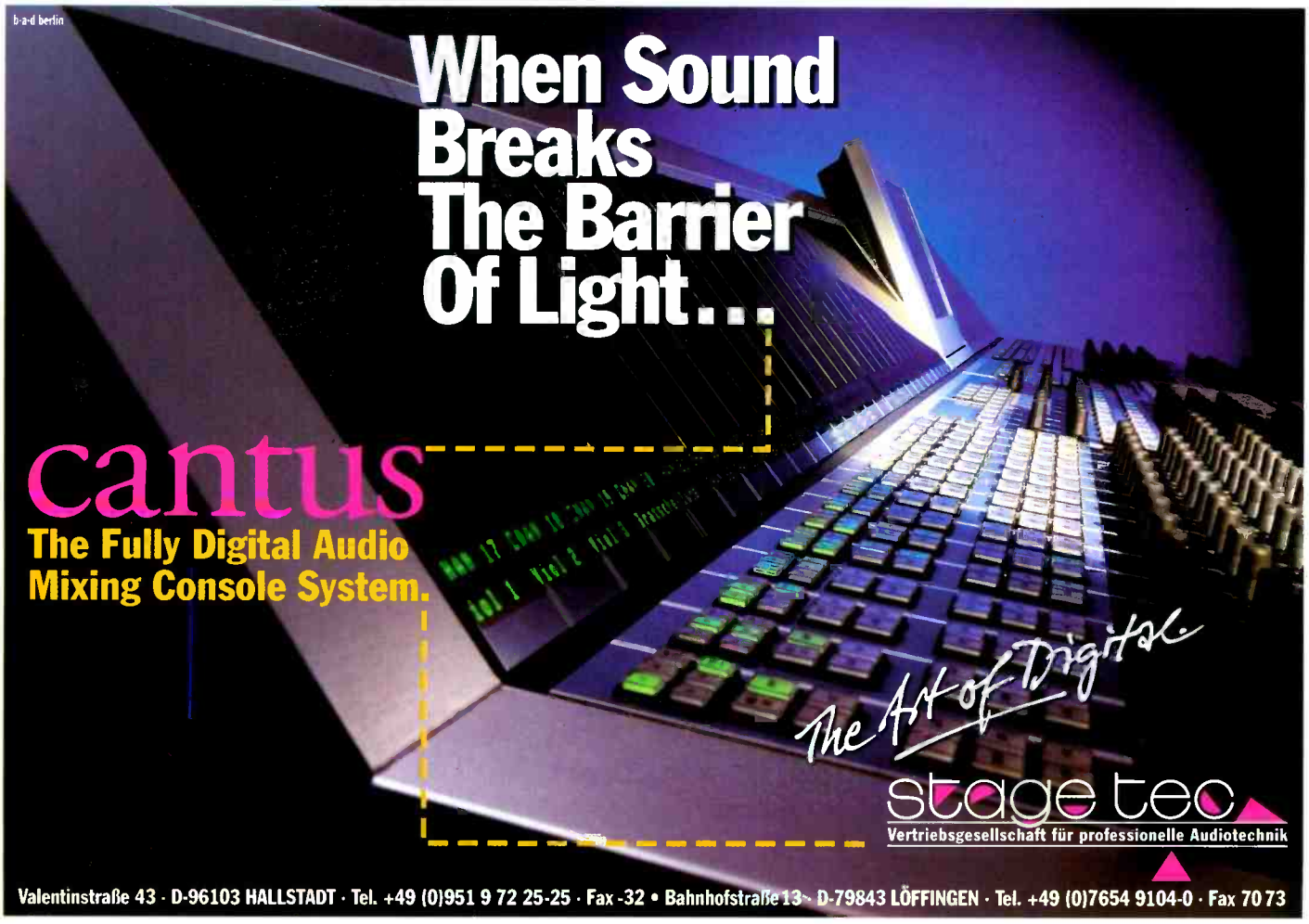
The MX2642 now has a 4-band equaliser on the stereo channels, while the 2804 benefits from a 2-track input and alternative 3/4 outputs, which route inputs to a second output buss rather than simply muting them.

Behringer 528

Martinsound

Martinsound has acquired a license to make and sell the ADR ControlPro and SpottingPro product line developed originally by LarTec Systems. Martinsound's version will include support for non-linear audio/video replay and 9-pin control. The computer based system provides a direct interface to the ADR/Foley console's playback monitor and track arming switches. AIP Pro Section automatically handles the switching of monitoring and record functions

Martinsound 529



READER RESPONSE No. 014

Audix routers

Audix Broadcast's ARM3000 series comprises audio routing matrices and control systems, offering routing capacities from 6x4 to 32x32 audio inputs and outputs. A simple user control interface provides presenters with a comprehensive display of the routings made and sources available on the system, removing the need for sticky labels and conversion charts. Each panel has a scrolling colour LCD screen showing details of all the sources available by means of a source number, a 40-character description and an 8-character abbreviated name. Selected sources are routed to outputs using four pushbuttons each with a display of its chosen source.

The controller panels are linked to the matrix units with unidirectional serial cables, allowing system resources to be distributed within a studio centre. The software uses a high level scripting language which allows the system to be custom configured using Easyroute Windows software to cater for modifications and expansion. An all digital routing matrix is expected to join the system shortly.

Audix Broadcast 530

Telex UHF debuts

Among a host of releases from Telex is the Radiocom BTR600 2-channel encrypted digital and BTR500 2-channel UHF wireless intercom. The former has a UHF transmitting belt pack and receiving base station and is full duplex.

The EDAT digital master editing and duplication system addresses the need for high speed compact cassette copies from digital sources and consists of a PCI sound card with software on a Windows 95 PC. It accepts inputs via analogue and digital and also accepts .WAV files.

CamLink II series wireless video system includes an upgrade to Telex's AutoPhase diversity system that detects and avoids multipath interference. New Audiocomp products include the SS2000 speaker, SS2000P and SS2000U speaker stations, WM1000 and WM2000 headset stations, US2000A user station and the PS2000L power supply.

Telex 534

Audio Precision

The System Two audio test system is now available as a digital-only version, the SYS-2300. Compared to the analogue modules, the digital version is said to offer significant cost benefits. System Two is supplied with Audio Precision's Windows-based software which enables the user to lay out a virtual test bench including test instrument panels; it also allows users to view six parameters at once.

AP 535

New Pro-Bel AES/EBU for XD

Pro-Bel has released AES/EBU versions of its advanced XD range of digital routers. The large-scale units come as 64x64, 64x128 or 128x64 matrices and are based on a standard 8u chassis with software that is fully compatible with all current Pro-Bel routers and system controllers. All facilities are integrated to allow field expansion from the starting sizes up to a maximum capacity of 1024x1024 without requiring ancillary hardware.

The system is compatible with sample rates from 32kHz to 54kHz and supplies synchronous switching to allow click-free on-air running. Routing of mixed sample rate signals is handled by each source being identified as either synchronous or asynchronous.

Two outputs per destination are available in the balanced IO version of the router, which allows easy system integration. An unbalanced IO version is also available, working on coaxial cable. It is possible for end users to edit or monitor specific parameters using a PC.

Pro-Bel 532

Production metering

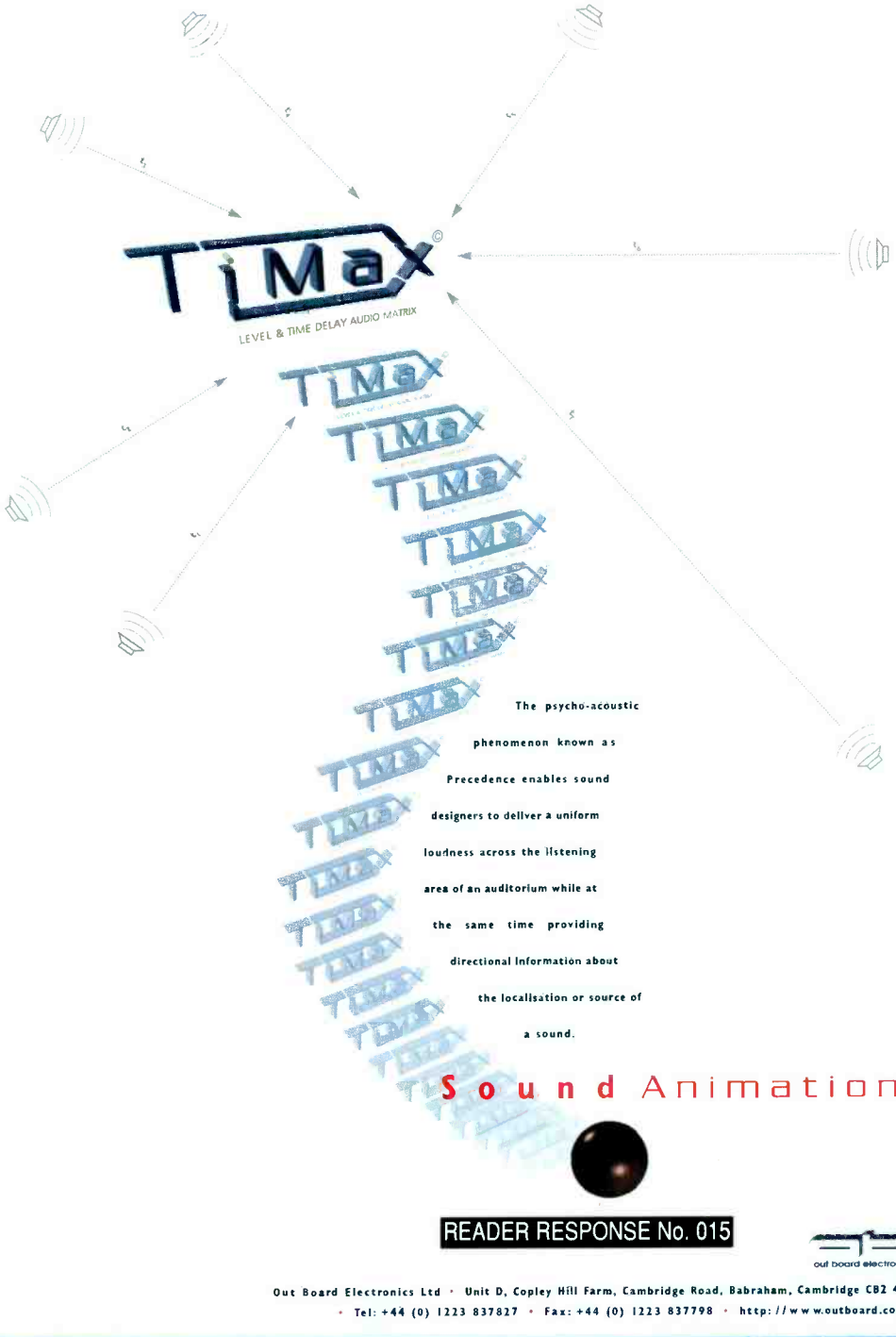
Creative Mastering has introduced the APM96 audio production meter which combines peak level and phase correlation meters and a 1/3rd octave spectrum analyser with a choice of analogue and digital inputs. Functions include peak hold and audio snapshot memories.

Creative Mastering 536

DK Audio

DK Audio now offers the MSD800 eight-channel PPM display with seven different scales, plus phase meter, audio vector oscilloscope and spectrum analyser.

DK Audio 537



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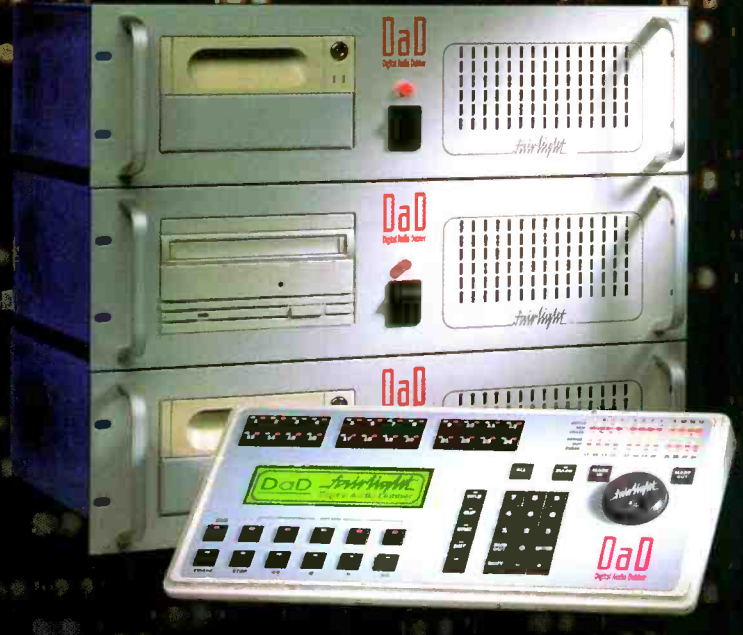

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READER RESPONSE No. 016

Chromatec

A new version of the AM-2 in-picture loudness meter has been developed by the manufacturer in conjunction with British broadcast organisations Thames Television and the ITC.

The AM-2L allows level, phase, sum and difference and loudness functions to be superimposed on a television picture or internally generated black background. An on-screen menu allows the user to configure the layout as required.

It is the loudness function which resulted from development by the broadcasters, as a means of quantifying the subjective loudness of commercials and promotional slots, compared to the main programming.

Michael Stevens & Ptnrs 538

Tektronix

There are two new options for the 764 digital audio monitor: an embedded audio input and an analogue line input.

Option 01 adds a serial digital video input with embedded audio demultiplexing to the AES/EBU inputs on the 764 base unit. This allows real-time level, phase and session monitoring of one group of four channels, as well as continuous monitoring of groups of four channels for audio activity.

Option 02 adds an analogue line output, allowing one of the stereo inputs to the 764 to be monitored via an amplifier and speakers.

Tektronix 539

TiMax automated matrix

TiMax is a DSP-based fully automated audio matrix that offers static and dynamic control of level and time delay at every matrix point. It is claimed to be among the first systems of its type to make delay panning and the use of the Haas effect possible in a distributed or surround sound system.

It has a maximum capacity to route 32 inputs to 32 outputs while the control software is cue driven allowing static and dynamic audio events to be saved and recalled by manual recall, remote control or timecode triggering. Sound reinforcement, fixed installations and film sound recording are said to be suitable applications in addition to any other scenario requires a number of inputs to be time aligned and mixed together.

TiMax is controlled from a PC through Windows 95 which communicates with the DSP via a high speed parallel link. The PC is supplied with a SMPTE/MIDI interface, two CD-ROM drives, 1Gb of hard drive, a 1.2Mb floppy drive, an internal modem for remote control and fault diagnosis, serial and parallel ports and an SVGA card.

Outboard Electronics 540

Switch in time

Audio Precision has introduced a range of audio switchers. The SWR-2122 range is capable of handling multiple or multichannel devices under test. It includes a new BNC-type connector version designed for unbalanced audio circuits and features audio crosstalk better than -134dB for the balanced version and -120dB for the unbalanced version.

The Systems Two Dual Domain audio test set now comes with APWIN Version 1.4 software and includes facilities for stimulating and measuring the AES serial audio interface and its embedded audio as well as conventional and multitone test capabilities for analogue and digital audio. The new software makes more digitally generated signal choices available for System Two due to additional software-based DSP signal generators.

AP 541

Prism DScope

Featuring high quality analogue and digital measurement and signal generation, the DScope Series III also offers jitter and related digital interface measurements.

The interface measurements complement those available on the DSA-1 handheld digital signal analyser. The system does not require cards to be fitted inside the host computer and runs under Windows 95 or NT. Measurement electronics are housed in a small external unit which occupies the same footprint as a notebook computer.

Prism 542

Neutrik software and analyser

Neutrik's well-known A2/A2-D test systems can now be controlled from a Windows PC using AS04 remote control software. All generator and analyser settings are displayed permanently and on-screen buttons provide direct access to the most commonly used functions and commands. Displays include numerical readouts, eight bargraphs and FFT spectrum analysis for suitably-equipped A2s, and the software allows automated test procedures to be run for applications like quality control.

Neutrik 544

Pro-Bel

The 6672 and 6673 modules embed and extract audio within a digital video signal and conform to the SMPTE and Sony formats, with user selection. The 6672 Embedder accepts two AES/EBU dual-channel signals, which are then inserted into two of the four available groups in the serial digital video data stream. The 6673 extractor allows the user to select which group of embedded channels to decode.

Pro Bel 545

Rohde & Schwarz

Two additions to the FSE range of spectrum analysers are the FSEM, operating to 26.5GHz, and the FSEK which operates to 40GHz. The new analysers are intended to meet the increased demand for testing at higher frequencies for such reasons as growing communications traffic.

Rohde & Schwarz 546

HARD DISK

Prolog is a cheaper AudioFile

A new addition to the AMS Neve family of digital audio editing systems, the AudioFile Prolog is an "attractively priced" 16-bit system which includes integral machine control plus a range of options, including future upgrade to 24-bit.

Features include up to 24 "virtual" tracks, user-defined graphic presentation of 16 or 24 tracks, and 16-track audio outputs.

AMS Neve 543

Spectral has Windows NT version of StudioTracks

Spectral has announced a 32-bit Windows NT version of StudioTracks XP and that it intends to emphasise NT workstation support across its entire product line. Producer 2.5 and Express 1.5 also run under NT using NT drivers developed for the Prisma DAW. StudioTracks XP is described as the most powerful and complete of the company's three editing interfaces.

Version 3.1 of the MediaFiler software signal processor, data compressor and format converter for digital files now incorporates QDesign MPEG conversion features. The system supports conversions to and from WAV, AIFF, Unix SND and Sound Designer among other formats.

Spectral 547

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Osiris restoration

Osiris sonic restoration software is a plug-in package for TripleDAT which provides declicking, denoising, exciting and sub-bass enhancement. A Pentium 166 can drive the processes and an equaliser simultaneously and like any of the Creamware effect modules, Osiris can be used in TripleDAT's "warp" operation In which the incoming signal is processed and brought to the output in real-time without resorting to hard disk storage.

Creamware 548

Disk arrays

Ciprico has a new release of its 6900 Series of UltraSCSI disk arrays. Introduced originally in 1995 as the first of its type to reach transfer rates of 40Mb/second, the new model offers improved performance at smaller request sizes and additional capacity and upgrade options.
Available in nine or five drive configurations, capacities start at 16Gb and go up to 72Gb and have hot swap drives and power supplies.

Ciprico 549

Digigram pockets MPEG

Digigram has developed its PCX card range and produced a portable version that is the first PCMCIA MPEG digital audio module for professional use. The PCXpocket is a Type II PC card designed to turn laptop computers into professional recording and editing devices. Used in conjunction with editing software, the PCXpocket creates a full digital audio workstation on a portable PC.
Material processed on the laptop using this new card can be transferred from remote locations using a modem or ISDN terminal plug-in. The PCXpocket has all the features and processing power of Digigram's PCX digital audio boards and works in PCM-linear and MPEG audio compressed modes to carry out coding, processing and decoding in real time. Among other features are two balanced mic/line inputs and two unbalanced outputs at line or headphone level.

Digigram 550

Soundscape goes 32 bit with update

Soundscape has now released the SSAC-1 and SS8810-1 audio interface for the SSHDR1 DAWs. The SSAC-1 accelerator card expands and enhances the exiting unit and can be retrofitted to all units. It's a plug in DSP card which gives several times the processing capability of the original unit and gives an extra 8 channels of IO in the form of a TDIF port and is necessary for all who wish to upgrade to the new 32-bit Version 2.0 software and expand the number of ins and outs.

Also available is the SSHDR1Plus which has the SSAC-1 fitted as standard. All upgraded systems will have 10 inputs and 12 outputs when connected to a Tascam DA88 or Yamaha 02R/03D.

V2.0 software permits 12-track playback per unit and the SSAC-1 also includes an expansion port which can connect to an external expansion chassis which has a 512-channel audio buss and allows 14 cards to be plugged in for additional DSP and IO capability. Multiple SSHDR1 units can be connected to one expansion chassis and can share disk space, IO and processing.

The SS810-1 is an 8-channel digital and analogue interface which connects to the SSAC-1 via the TDIF port. It has 8 inputs and 8 outputs with balanced XLRs using 20-bit Crystal converters. There's also an ADAT optical interface, word/super clock in and out and 8 x10-segment LED metering.

Soundscape 551

Mackie HUI takes hands-on approach

HUI is a hardware controller surface for DAWs developed jointly by Mackie and Digidesign. The Human User Interface will initially be available for use with Pro Tools 4 but will be compatible with other Digidesign DAE software from MotU, Opcode and Steinberg.

The surface has touch sensitive motorised faders, LCD scribble strips and controls for pan, sends, routing, automation and transport functions. An analogue control room section handles talkback and three stereo IO pairs. There's also a dedicated section for editing and automating TDM plug-ins.

Mackie 552

Nagra recorder/codec combo

Nagra's CPP combines a PCMCIA card recorder with an ISDN codec in a unit that can be rackmounted or freestanding. The codec communicates in speech and data modes and permits MPEG communications in both directions as well as G722 and G711 compression systems. This combination allows the CPP to receive incoming calls unattended and store them for future listening and can send ISDN messages on cue when called from another codec without operator intervention.

Targeted at radio broadcast and film post, the price off the unit is said to be less than most codecs and is fitted with two mic inputs (phantom, T-power and dynamic) which permit the mixing of live audio with previously recorded audio data. The CPP can also use two different communications protocols at the same time and as the software between it and Nagra's ARES-C is 100% compatible, the two machines can talk to each other without an operator.

In a future version the telephone connector will be substituted by a SMPTE/EBU timecode connector which will transform the CPP into a postproduction playback unit. An RS422 serial port links to other equipment remotely while a BNC socket is provided for synchronisation purposes.

Nagra 553

Sonorus STUDI/O 16ch PC card

STUDI/O is a PC card offering a 16-channel digital audio interface to Windows 95-based DAW software using two Alesis ADAT format optical IOs. It is supplied with software drivers compatible with existing Windows audio devices to provide compatibility with most editors. The primary application is direct interface to a pair of ADAT machines for direct transfer of material digitally between tape and disk, and it also gives the option of using the ADAT onboard converters to save buying additional hardware to feed the DAW. There is an 18-bit stereo analogue monitor output, and for mastering one or both of the ADAT interfaces can be software reconfigured to deliver SPDIF, complete with sample rate conversion.

Sonorus 554

Digidesign evolution

Digidesign has heralded the release of Pro Tools 4.0 as the most important evolutionary step in the system since the introduction of TDM. Supporting the company's new PCI and NuBus-based ProTools III, Pro Tools Project and Audiomedia hardware and using native PowerPC programming language, mixing capabilities have been increased with the inclusion of send and mute automation and dynamic automation of virtually all TDM plug-in parameters.

AudioSuite is a host-based file based Plug-in specification for Pro Tools beginning with v4.0 and users of this version will get this feature free with every product in the Pro Tools family including Pro Tools III, Pro Tools Project, Pro Tools with Audiomedia and the host-based Pro Tools PowerMix.

The core of plug-ins includes reverse, normalise, gain, pitch shift, time compression/expansion, invert, DC offset removal, dither and duplicate. A new plug-in from the company is the LoFi/SciFi option which aims at providing "down-processing" and analogue synthesiser effects.

Digidesign 555

Akai digital is the answer, what was the question?

"Is there an affordable digital MTR that syncs to anything at any speed with instantaneous lock-up, has proven reliability, records on random access Disks, is compatible with a wide range of products and conforms entire programs in seconds?"

There is now, the Akai DD8. A self contained 8 track disk-based random access digital recorder which can replace existing tape or mag machines in any film-dubbing or television production environment. It uses an uncompressed 16-bit linear format and records to a user choice of Magneto Optical or removable Hard Disks.

Akai introduced the World's first audio editor using M/O storage in 1990 with the DD1000, and the mighty DD1500 16 track Digital Audio Workstation is probably the world's fastest system available, with zero loss editing via fast dedicated buttons, digital mixing and EQ and a beatifully clear on-screen display. Now shipping with two years worth of software development including the unique EDL package which allows conforming of EDLs from tape or even from Akai project disks; with this amazing feature the DD1500 can conform entire programs in an instant from studio recordings or rushes on disk. Since 1994, the entire product range has been gradually expanded to provide a family of compatible products, tried and tested. A worldwide digital standard.

The latest addition, the DD8, is the perfect ultra-reliable tool for all professional sound recording requirements without the endless frustrations of tape transport limitations. It's ideal for syncing rushes, recording footsteps, foley or ADR, pre-mixing or masterering: in fact any recording task. It will synchronise to bi-phase or timecode in any direction or at any speed (including slow-motion). It can be fully remote controlled via GPIO or RS422 or even the legendary DL1500 system controller. Tracks can be slipped, nudged, and of course there is full audio scrub.

A single DL1500 can control up to 16 Akai digital units (any combination of DD8, DR8, DR16 or DD1500) via Ethernet. With a DL1500 functioning as its front end, the DD8 offers our full EDL autoconform package and much of the extensive editing capacity of the mighty DD1500 DAW at an extremely affordable price level.

The DD8 TDIF I/O option along with the analogue i/o (balanced on a DSUB connector) allows direct replacement of existing digital MTRs; and being disk based, the DD8 provides freedom from slow, inflexible operating methods and high maintenance costs. The DD8 in fact offers the ultimate flexibility of disk interchange without restriction, giving the freedom to take a disk from a recording stage to a sound editing suite, and from a sound editing suite to a dubbing theatre, at any stage loading into any compatible Akai unit. No time consuming transfer of audio from one media format to another, thus cutting hours from the work schedule. For those prefering to edit using computer based systems, Akai has worked with Grey Matter Response™ to provide DD8/DD1500 support in Mezzo Interchange for Macintosh™ allowing bi-directional conversion capability between Akai and any OMF-compatible DAW. Any conversion between the two formats will also incorporate all new edits in an updated file.

DD8, DD1500, DR8, DR16, compatible, networkable solutions.

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Fairlight MFX3plus

Fairlight recently upgraded its established MFX3 DAW to become the MFX3plus, and has now committed itself to adding 24-bit capability by the end of this year. Since the existing system employs 40-bit floating point internal processing the expansion of the audio word length is claimed to not affect its processing power, and the implementation will involve little or no hardware change allowing existing users (including FAME users) to upgrade to the higher resolution.

Fairlight 556

SCSI for DMT-8 VL

The Fostex DMT-8 VL has added the 8339 SCSI interface card which is available fitted on new machines or as a retro-fit . The expansion card offers fast back-up and restore of recorded data to external SCSI devices such as removable cartridge systems and external hard drives.

Fostex 557

ASC

Designed to make access to multiple audio sources easy when working with PC based workstations, the Buddy range of mixer/monitors fit under the computer VDU to save space.
Buddy Junior offers two mic/line inputs with switchable phantom power and two stereo line inputs fitted with balanced XLR and 1/4-inch jack combi inputs. All inputs have PFL and one of the mic inputs is duplicated on the front to allow the use of an operator's headset. Another 12 line level sources and three remote start buttons can be added with the Buddy Switcher. Monitoring can be switched between source and record, with a 4W amplifier for a small monitor provided in addition to a headphone socket. PPM characteristic metering is provided by a series of LEDs. A more flexible Buddy Senior is also planned for release soon.

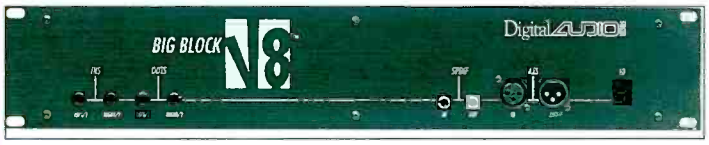
ASC 558

Amek STARgate

Amek has released a public domain protocol called STARgate that permits integration of any brand DAW to its DMS digital console.
The general command sets include SyncLock machine control; TimeTransfer for combining timelines from the DMS and DAW; AutoEvent channel segment information interchange between the DAW and the DMS; and RemoteSave single file saving facility for complete project storage of DAW and DMS settings and automation in either one.

Amek 559

Digital Audio Labs V8 DAW



Digital Audio Labs, producers of the CardD PC cards and software, is now shipping the V8 multitrack digital audio workstation system. The V8 is a modular hardware platform, featuring a main board with an upgradeable DSP architecture and a wide variety of input and output options, including digital interfaces for ADAT and DA-88-type machines.

The base configuration is capable of recording and playing up to 16 discrete tracks, and the system is completed by automated mixing and a patching and routing matrix.

DAL has a network of partners, known as Gearheads, who will be supplying application and DSP plug-in software for the V8 system.

DAL 560

Sonic Studio 5.3

Sonic Studio 5.3 delivers new features targeted at CD premastering, broadcast, postproduction, and DVD premastering. Additions include support for four channels of 24-bit, 96kHz High Density Audio, support for Yamaha and Philips CD-R machines, and OMS Midi timecode support. Sonic has also featured the release of Opcode StudioVision with SonicStudio support while Mezzo Interchange software converts Sonic EDL and audio files to/from OMF, the AKAI DD8 dubber, and others.

The Sonic Multitrack Studio integrated digital multitrack system has up to 64 channels of IO, digital mixing, editing interface, and punch-in/out on the fly.

Sonic Solutions has also launched the On-Air Suite of applications and workstations for radio broadcast, featuring instantaneous and simultaneous editing of a single soundfile by up to 20 editors while it's still being recorded. Sonic's drag and drop process to provide intuitive operation is also included. A new simplified editing interface designed specifically for radio production and integration with available Electronic News Production systems is included in the new release. Sonic On-Air provides a straightforward means to enrol workstations into On-Air sessions and perform run-down operation of the playlist in real-time.

The company has demonstrated it's Sonic DVD Creator system for complete DVD premastering. Comprised of systems for MPEG-2 Variable Bit Rate video encoding, Dolby Digital surround and MPEG-2 audio encoding, and complete DVD authoring, formatting, and emulation, Sonic DVD Creator provides what the company calls "a workgroup solution for high-quality, high-productivity, DVD production".

Sonic Solutions 561

Fostex adds two multitracks

Fostex has released two digital multitrack recorder-editors with the D-90 and D-160 both of which are standalone rackmounting devices with removable front panel-remote controls hiding a hard drive caddie.

The D-90, like the D-80, can record eight tracks simultaneously with non-destructive cut, copy, paste and move editing plus undo and redo. Additional features include 48kHz recording, an additional four virtual reels (total nine) with their own locate points, the ability to chase to MTC and varipitch.

The D-160 offers all of the D-90 features yet records 16 tracks. In addition, there are 8 'ghost tracks' permitting eight takes to be permanently stored for one track. It features FDMS-3 (Fostex Disk Management System) which allocates hard disk space per track at the time of recording allowing a 1.3Gb disk to offer more than four hours of mono recording. The optional 8345 timecode sync card syncs to timecode and resolves to Video or Word Clock.

SCSI-2 backup support (standard on the D-160 and optional on the D-90) gives fast 8-track or 16-track backup to external SCSI devices while an ADAT optical Interface allows real-time bidirectional 8-track transfers. Both machines have optional balanced 25-way D-connectors.

Fostex 562

Publison

Publison has introduced the Totalstation 32-track DAW for video and film postproduction, which incorporates many of the features of the Infernal Workstation such as a graphical interface with waveforms. It also has ultra-fast tape backup which works in background.

Main features include 20-bit or 24-bit AD and DAs; 32-bit digital processing; the ability to multitask; 32 audio tracks using RAID technology; jog and backwards play; 10-band parametric filters; one video track and powerful crossfades options. Totalstations also offer multi-user configuration via separate remote controls and can be networked.

Publison 563

Courier recorder

Sonifex's Courier portable hard disk recorder has started shipping aimed at journalists, sports reporters and sound recordists. Weighing 1.4kg the machine records digital audio to a PCMCIA card, has graphical scrub wheel editing and can transfer audio via mobile phone, modem and ISDN.

Sonifex 564

TripleDAT

Creamware has introduced a family of affordable hardware based on ADAT interfaces. The TDAT 16 hardware offers two ADAT interfaces on one PCI board with a 80 MIPS DSP for onboard routing and mixing of signals. TDAT 16 software is an enhanced version of the original TripleDAT system and features multichannel record, mixing and routing.

TripleDAT now ships with a Red Book CD Writing package which supports most popular CD writers and can set emphasis bit, indexing, copy protect coding with Disk at Once and Track at Once writing. The system can also write CDs on-the-fly and for writing at 4 times speed or higher TripleDAT places the data across hard disk partitions.

Creamware 565

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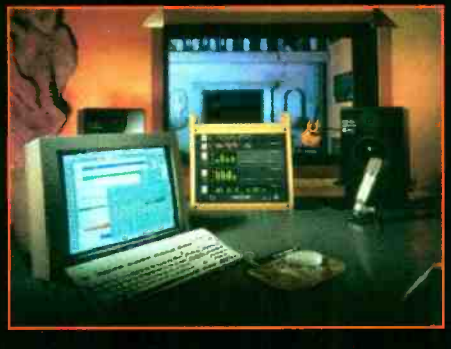

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Tekdata

The Plextor PX-12CSi claims to be the world's first CD-ROM drive and offers a sustained data transfer rate of 18,000kb per second. Random access time is 110ms and the unit is said to use very few CPU resources. Platforms supported include Apple Mac, PC and Silicon Graphics.

Tekdata 566

Maxoptix

The T5-2600 MO drive is said to provide the fastest seek time available. With a spin speed of 3,868RPM, it is said to support burst data rates of up to 10Mbs with a sustained rate of 4.3Mbs. Seek time is said to be around 24ms. The unit uses 2.6Gb disks and has a SCSI-2 interface.

Maxoptix 567

Pyramix

The Pyramix Virtual Studio 1.2 adds a number of features to the system. In the News Editor, every composition has an associated news item and editing is assisted by the Overview window located to the right of the EDL view. The networked Virtual Studio has an Audio Mall facility.

Merging Technologies 568

Lucid IOs

Lucid Technology has two new products for getting digital audio In and out of computers. For general use, the ADA1000 is designed to replace the low resolution interfaces often found in DAWs, delivering and retrieving 20-bit SPDIF or AES/EBU. It is an external unit offering the three basic sampling rates at low cost.

For the Mac, Lucid has a 24-bit NuBus digital IO card, the NB24. Recognising the large numbers of NuBus Macs still in the market, the card interfaces with external digital equipment via SPDIF and is priced "well below other currently available cards".

Lucid Technology 569

Mandozzi Electronics

The ME-DART portable digital audio recorder and editor has built-in codecs and ISDN terminal adapter and is designed for use by broadcast journalists. It records 7, 10 or 15kHz, mono or stereo audio in linear mode without compression. Recording is done on laptop computer PCMCIA hard disks and the machine features built-in CCITT G.722 and ISO/MPEG 1 Layer II codecs as well as an ISDN terminal adapter and transmits the edited contributions in real time via ISDN. It is battery operated and designed to be light, robust, splash-proof and easy to operate.

Mandozzi 570

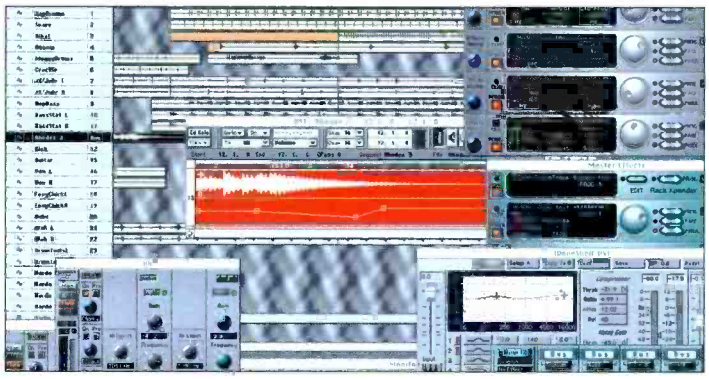
Spectral AudioVault Transfer

New software from Spectral allows digital audio to be transferred directly from a Spectral workstation to Broadcast Electronics' AudioVault on-air delivery system via standard network connections.

AudioVault Transfer Agent allows work produced on AudioEngine or Prisma workstations to uploaded to a central AudioVault system for immediate airing. It works concurrently with Spectral's Express, Producer or StudioTracks XP interfaces under Windows (3.x or 95).

NetBEUI network protocol is used for the audio transfer, allowing simple configuration over a standard LAN. Linear uncompressed and MPEG-compressed audio are supported, and multiple Spectral workstations can run on a single network, or across networks in different physical locations using a LAN bridge.

Spectral 571



Cubase VST 3.5 for Power Mac

Timed to coincide with the arrival of various multi-IO audio cards for PCI-based Power Macs, Cubase VST 3.5 supports multi IO with its new buss system.

Each channel in the VST audio mixer can be assigned to any of the physical IOs featured on the audio card. Any effects send, even the returns, can be routed allowing analogue processing to be incorporated.

The new Cubase VST 3.5 ASIO system supports the following multi-IO devices:

Lexicon Studio, Korg 1212, Digidesign's Audio Media III, Lucid Technology PCI24, Event Electronics' Layla and Darla cards.

From Version 3.5 a range of Steinberg Plug-Ins for VST will be available and the Externalizer and the new WunderVerb3-Reverb are included in this release.

Cubase VST for Windows 95 is also available and the number of plug ins for the system has continued to increase.

Steinberg 572

New cards for Akai recorders

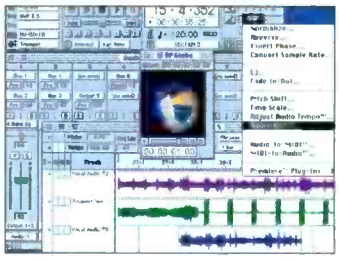
Akai has a number of card options for its DR8, DR16 and DD8 family of hard disk recorder/editors starting with the IB809E ethernet interface which allows control of the aforementioned units by the DL1500 system controller. The facility was previously only available on the flagship DD1500.

The DL1500 adds remote control of multitrack recording, enhanced editing, a precision jog wheel, multilevel Undo, a QWERTY keyboard input and control of on-board mixing functions. An LCD and large colour coded keys are provided in addition to S-VGA display connection in a package that amounts to all the facilities offered by the DD1500. Software permits networking of six DD or DR units for a maximum of 256 tracks.

The IB808G general purpose IO allows the custom application of any remote control system using GPIs. A total of 16 GPI inputs are provided for track arming and transport functions while 12 GPI outputs can be used for such things as reading record tallies.

The company has developed an 8-in/16-out ADAT interface for the DR16, which has applications for users of Yamaha's 02R desk, an 8-channel AES/EBU IO board and an 8-channel TDIF IO board.

Akai 573



Opcode Studio Vision Pro 3.5

Opcode Systems' Studio Vision Pro now reaches v3.5, with Power Mac Native code, full support for Digidesign TDM bussing, new DSP features and enhanced integration with Apple QuickTime. New DSP possibilities include formant based pitch shifting, allowing pitch to be changed without altering the timbre or timbre to be changed while retaining original pitch, changing male voices to female and vice versa. Also new is Audiomorf, giving "futuristic resynthesis over time" also using formant technology.

Opcode 574

MotU PureDSP

Mark of the Unicorn 's PureDSP time-scaling and pitch-shifting technology, previously only available as part of the Digital Performer system, is to be released as a plug-in for Pro Tools and other AudioSuite-compatible systems. PureDSP applies formant correction algorithms to the functions of pitch shifting and time alteration to avoid the munchkinisation familiar from most techniques. It claims the ability to transpose monophonic material by as much as an octave without destroying the spectral characteristics of the source, and also to translate male voices into female ones and vice versa using the optional SpectralShift morphing software.

MOTU 575

Rorke Data

Rorke has a new line of desktop and rackmount hard disk arrays with between 2Gb and 36Gb of storage. Arrays are capable of sustaining 20Mbs transfer and are available with various combinations of drives.

Rorke Data 576

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Dialog4 mini MPEG

Dialog4 has extended the choice of location reporting recorders with the C(Centronics)-TAXI which measures 140x200x40mm. Using Flash-EPROM, the machine can record 40 minutes of stereo with ISO/MPEG. Material is stored in Broadcast Interchange Format (BIF).

Offering mic, line and headphone connections, record parameters like level and limiter settings can be locked in during operation, while an index key allows access to different takes. Finished material can either be transferred as a file or in real-time using the Digital Audio Library interactive program.

Dialog4 577

Cedar

Cedar Audio has launched a suite of Real-Time Audio Restoration modules for the Macintosh. Hosted by the same Cedar MacDSP board that already hosts the Declick module, the new products are Decrackle and Dehiss2. Multiple MacDSP boards can be used in a single system so that all three processes can be cascaded for a single real-time pass that removes clicks, pops, scratches, crackle, buzz, distortion and hiss from degraded signals. Up to eight MacDSP boards may be used simultaneously and all boards may be used in parallel to simultaneously process no fewer than 16 channels of audio.

Cedar 578

Merging Technologies

The AIU8 8-channel AD/DA converter is capable of 16 to 24 bit digital audio and is designed to function with Merging Technologies' Pyramix digital audio workstations and ADAT tape machines via optical interconnection. The company has also announced a link with Cedar Audio which will allow it to incorporate a version of Cedar De-hiss into Pyramix.

Merging Technologies 579

Teac

Believed to be the first 12x speed IDE CD-ROM drive in the world, the CD-512E is said to have a sustained data transfer rate of 1800kb per second, making it particularly suitable for audio and video playback.

The unit uses CLV (constant linear velocity) which enables the drive to transfer data at a constant speed regardless of its location on disc. This further enhances its suitability for real-time media applications.

Tekdata 580

Hard disk on location with Deva

Zaxcom's Deva is a 4-track location mixer/recorder with timecode, digital EQ, compression and gate that runs off removable hard disk. Stated recording time on the 6lb unit is 2.5 hours track time on a single battery charge.

The device has 20-bit AD converters and 24-bit recording depth, 256 cue points, Sony BVW75 emulation and a mechanical shock sensing circuit that automatically shifts recording to a 24Mbyte RAM buffer which is then transferred to disk. The company also produces a rackmount version of the device for transferring drives to the studio.

Zaxcom 581

Orban's space Audicy DAW

The Audicy, Orban's second-generation DAW, performs all its editing in RAM with automatic shadowing to hard disk or removable Jaz drive. It provides simultaneous mixing and processing of 10 audio channels plus submix and stereo input, with PCM linear recording of up to 24 tracks. AES/EBU inputs and outputs are available, and Audicy networks with popular on-air audio delivery systems. The DAW's software offers timecode features such as format mixing, multiple chase modes, and integration with all edit and effects functions. Onboard digital effects include Orban compression and noise gating, Lexicon reverb, parametric equalisation, time compression/expansion and pitch shifting.

Its hardware controller incorporates 13 long-throw faders dedicated to gain control on main inputs, mix channels, and stereo submix. Eleven separate knobs provide real-time pan-aux send-submix functions, as well as discrete parameter control in effects mode. Transport controls are also provided.

Orban 582

Ensoniq PARIS cross-platform

Ensoniq has launched a cross-platform recording, editing, mixing and processing environment known as PARIS (Professional Audio Recording Integrated System), capable of handling 128 tracks at 24 bits. The core of the system is the Ensoniq EDS-1000 PCI card together with a CD-ROM containing software for Macintosh and Windows environments.

The software's graphic interface controls the integral 128-track digital mixer with dynamics processing, 4-band parametric EQ, aux sends and real-time effects including reverb. Multiple cards can be supported to increase processing power and IO capability, and plug-in software architecture allows third-party development.

The card carries connectors for an Expandable Input-Output System and a dedicated hardware control surface, and can be augmented with an expandable modular mainframe. This allows wide flexibility, with support for analogue and digital IO, word clock and video synchronisation, and forthcoming additions such as ADAT and Tascam TDIF interfaces plus timecode. The hardware control surface has 16 channel faders, mutes and solos, a master stereo fader, and a full set of rotary controls for EQ, auxes, pans and monitor level, together with comprehensive transport controls including a jog-shuttle wheel.

PARIS is the result of long-standing joint development between Ensoniq and Intelligent Devices, and relies on Ensoniq's new ESP-2 chip for its 24-bit capabilities and processing power.

Ensoniq 583

Otari MOs

Related in principle to Otari's MX5050 tape recorder series, the new DX5050 uses 3.5-inch MO discs and has the distinction of being the first 2-track MO recorder that is WAV file PC format-compatible and thus allows easy and direct data exchange with Mac and Windows based mastering systems.

Recording time on the discs is 20, 50 or 60 minutes depending on size in linear 16-bit form and the portable machine includes cut and splice editing and AES/EBU and analogue IOs.

The machine is complemented by the PD20, essentially a fixed version of the DX5050 which is 4-track, has a remote control, and advanced editing features with a VGA-monitor and integrated synchroniser. Significantly, it is data and playout compatible with Otari's PD80M 8-track DAW. As standard the PD20 has 20-bit AD/DA converters and will be available in the summer.

Otari 584

Octavia goes 96kHz dCS

Studio Audio & Video has chosen Data Conversion System's 96kHz 24-bit converters to complement the new high resolution editing features of its SADiE3 software. The dCS 902 and 952 ADCs and DACs have been designed for high speed operation, while a set of standard inputs and outputs enable them to be used in a wide range of digital audio applications. The units use a proprietary, multibit oversampling technique that achieves low differential non-linearity and gain ranging is not used.

SAV 585

Marantz portable

Marantz has joined the portable digital recorder arena with the PMD690 which the company says is the first in a new generation of products. It records to PCMCIA III or hard disk through an interface in MPEG Layer II and its data is accessible via an external computer or via analogue and digital IOs. Features include onboard editing, MS-Dos compatible file storage, parallel data output port, XLR mic/line input, and phantom power.

Marantz 586

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READER RESPONSE No. 020

Garwood's frequency

Garwood has presented the Radio Station IDS in-ear monitoring system which is frequency-agile and suitable for international use with its on-board portfolio of more than 50 frequencies. Using an Active Antenna, the IDS has a transmission range of up to 700 feet. The company also has the System 2 low-cost IEM system, the System 3 with the super-compact LV1 receiver, the ADA8 antenna distribution system, and the Radio Station IEM system plus a full range of earpieces for IEM and talkback applications.

Garwood 587

Rode NT1

Continuing the tradition of the NT2 and Classic, Rode has released the NT1 large capsule cardioid condenser microphone which has a 1-inch gold sputtered diaphragm mounted in a proprietary internal shock mount. The mic uses transformerless FET circuitry and two layers of stainless steel weave in the structure of its head.

HHB 588

Danish Pro Audio's mini mics

DPA4060 Miniature Microphone combines outstanding audio performance, durability and small size. Two different grids for two different acoustical equalisations are supplied with the microphone; one EQ for lavalier mounting, and one EQ for microphone placement on the head of the wearer. The DPA4060 runs on 7V and can be accommodated by most wireless systems.

Also new are the company's latest accessories, the Flamingo Series microphone stands. These are designed to accept the B&K Compact Series Microphones with Lemo connector and can be transported and stored in compact transport tubes with floor bases that can be stapled. As a special feature, Flamingos can be assembled together with standard microphone stands if special stand constructions are required.

DPA has also upgraded its HMA4000 Two Channel Hi-voltage microphone amplifier, which supports not only the Hi-Voltage Microphones but also 48V phantom microphones via a new HTP4000 adapter. Specifications like 140dB dynamic range, 10Hz - 200kHz +/- 0.5dB and less than -90dB channel crosstalk puts the HMA4000 in the top league of microphone amplifiers.

DPA 589

SD Systems

Specialising in the manufacture of transducers dedicated to miking wind instruments, SD Systems has a variety of models targeted at all types of instrument.

The microphones are carefully tapered for response and presented with convenient and reliable mic adapters that position the mic in the optimum position for close miking the relevant instrument.

Each adapter can also be adjusted for fine positioning and the company claims that its products give players hitherto inexperienced freedom of movement on stage and while recording. The manufacturer's products are also available for several difficult to mic stringed instruments such as double bass.

SD Systems 590

Audio Technica

The new ATM89R is a condenser microphone designed for hand-held use by vocalists on stage. As such, it is fitted with high-SPL handling internal shock mounting, and a hypercardioid polar pattern for maximum gain before feedback.

The large diaphragm condenser microphones AT4033a and AT4050 are now available as stereo kits. In addition to a pair of microphones, the kits include two shockmount suspensions and an aluminium attaché case. Both microphones use gold vapourised diaphragms, and the AT4050 has three switchable polar patterns.

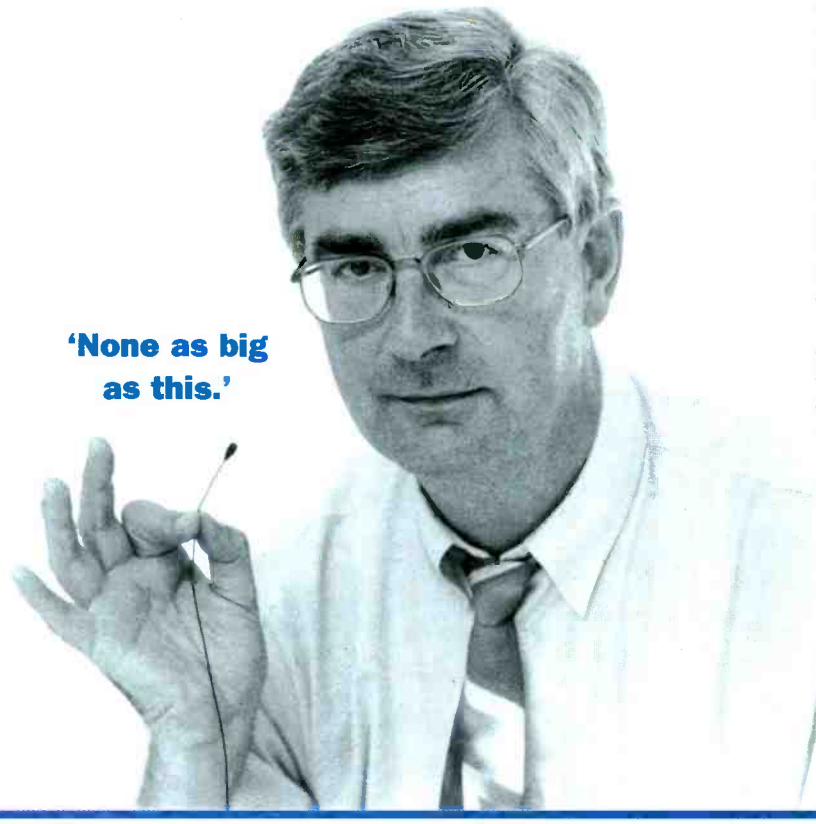
AT 591

Elation 201

Newly available is the Elation 201, a small studio condenser microphone which although only introduced this decade is already successful within Russia. Its claimed strengths are clarity and warmth coupled with impressive tolerance and low noise, making it suitable for many applications.

Mytex 592

'In your time at Brüel & Kjær you created many breakthroughs.'



'None as big as this.'

"Most miniature microphones have a short working life - especially in theatre applications where they are subject to continual body contact - so I set myself the challenge of creating something better.

The result is the DPA 4060, with superb sonic quality and impressive dynamic range. Although it will handle a broad range of applications, it is aimed primarily at the theatre and TV where invisibility, robustness and stability are crucial.

Perhaps its most important characteristics are a significantly longer operational life, and the fact that it is astonishingly impervious to sweat, make-up, heat and humidity.

I believe it to be the world's finest miniature microphone."

Ole Brøsted Sørensen

Ole Brøsted Sørensen

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READER RESPONSE No. 021

First Sense

A low-tech product designed to hide radio mic transmitters under clothing, the Body Pouch is an elastic belt 100cm wide with a hook and loop fastening. Two elastic pouches stitched into the back accept most radio transmitters and small talkback receivers. Restraining straps hold these securely in place and transmitters may be mounted upside down.

First Sense 593

Beyerdynamic

The Beyer M88 dynamic and M500 ribbon microphones are now available as Limited Edition Classics. The M88 was designed in 1963, while the M500 was discontinued two years ago after more than 20 years in production. Only 999 of each model will be produced.

The microphones will have a chromium plated satin finish, will be numbered and will come with a wooden case plus an individual frequency plot signed by Fred Beyer.

Beyerdynamic 594

AKG CK69-ULS

The CK 69-ULS two-part shotgun capsule builds on the original CK 68-ULS - a two-part interference tube combining two different shotgun heads in one. The new mic can be converted from a long shotgun to a short one for a range of recording applications.

AKG has introduced XLR phantom powered versions of the C921 and C947. They come in black and white and have a dedicated suspension with non-twisting cable.

AKG 595

Sony Freedom

The Freedom Series of wireless mics represents Sony's pitch at the lower end of the market. Compatible with the WL800 series it incorporates such things as easy user configuration, multichannel setup, battery status light, pilot tone, PLL synthesised control frequencies and LCD display and adjustable frequencies in the 800MHz range.

The series includes the WRT805A pocket transmitter and the WRT800A handheld vocal mic with electret condenser capsule. Two receiver units feature the WRR800A half-rack width unit and the 6-channel WRR801A modular receiver.

Sony 596

Hardcase

HCMIC30 is a microphone case designed to carry 30 units. There is an accompanying HC28 which can be used to store mic leads. Another case is designed for stands, such as mic, speaker and drum mounting hardware. Made from waterproof, high impact polyethylene, the case is lightweight but has two wheels for improved mobility.

Hardcase 597

Groove Tubes upgrades

Groove Tubes' range of microphones, the MD1, MD2 and MD3, has been upgraded internally to create the A Rev series. A completely revised circuit topology, which GT claims has never been used before in a tube microphone, uses a selected 12AT7-M dual triode valve with newly-designed electronics and output transformer to deliver a 10dB improvement in dynamic range and reduction of distortion by a factor of 10. The capsule mount is made from sorbothane, described by GT as a miracle material, and internally adjustable polarisation voltages allow for precise matching of stereo pairs. The power supply has also been upgraded to improve hum and noise specifications, and the price remains the same as the original models. Existing GT microphones can be upgraded to the A Rev specification for a nominal charge.

Groove Tubes 598

Neumann active

Neumann's active capsule for the KM100 system, the AK20, has a figure-of-eight pattern. Unlike switchable studio microphones, the AK20 achieves its polar response without using two diaphragms and is therefore free from problems associated with differences in arrival times between the two surfaces. Neumann specifically notes that frequency response curves are identical at 0 and 180 degrees. A number of new mounts allow the use of Blumlein stereo and MS stereo. In addition, to use as a detached capsule, the AK20 can be fitted directly to the KM100 output stage, forming the KM120 miniature microphone.

Neumann 599

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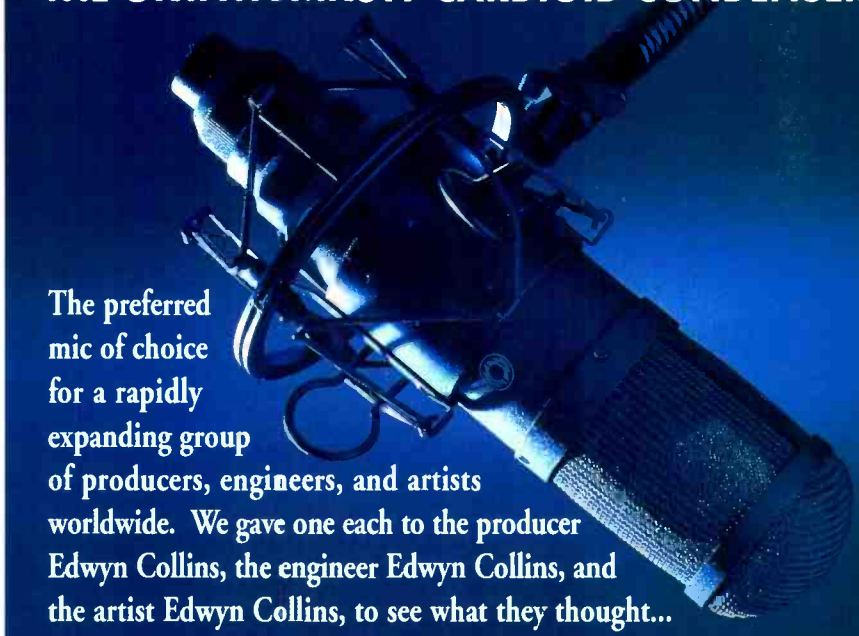
The preferred mic of choice for a rapidly expanding group of producers, engineers, and artists worldwide. We gave one each to the producer Edwyn Collins, the engineer Edwyn Collins, and the artist Edwyn Collins, to see what they thought...

"It produces outstanding results"

"Mm, very well engineered"

"A real work of art!"
...all three agreed
THEY'D NEVER KNOWN A MIC LIKE THIS BEFORE!
READER RESPONSE No. 022

EV handheld

A handheld microphone based on the technology used for the RE2000 condenser, the RE500 is extensively shock-mounted and includes the patented EV Warm-Grip rubber handle. According to the manufacturer, the design is a true condenser and more robust than electret systems.

A miniature lavaliere aimed at the broadcast, film and theatre markets, the C02 mic has an omnidirectional pick-up pattern. Frequency response is quoted as 50Hz-20kHz.

Available in black or white, the unit has a special Tincture surface that can be painted and repainted with ordinary acrylics for accurate matching of hair, flesh or clothing. The C02 comes with extra long cable and has a full range of mounting hardware.

ElectroVoice 600

Crown

Crown has introduced the PCC130SW phase coherent cardioid mic which is a miniature version of the PCC170SW. It can be programmed for touch on/off and a high intensity LED signals status. Capable of withstanding 120dB without distortion, the mic's electret-condenser capsule has a frequency response of 50Hz to 20kHz.

Crown 601

Shure in-ear

Shure has joined the in-ear monitoring crew with its Personal Stereo Monitors (PSMs). The PSM600 series is divided into two packages. The P6HWE1 is the hard wired version, made up of P6HW belt-pack receiver, E1 universals with foam earpieces (with ten replacements), interconnect cables (dual XLR to LEMO), 9V battery, earpiece cleaning tool and a plastic carrying case.

Wireless needs are catered for by the P6TRE1, with P6T rack mountable transmitter, P6R belt-pack receiver, E1 universals and foam earpieces (plus replacements), 1/4 wave antenna, power cable (IEC) for P6T, 9V battery, cleaning tool and carry case.

The Microflex range of microphones has been improved. The goosenecks are now exceptionally flexible and interchangeable capsulesin cardioid, super cardioid and omni pickup patterns are available. One model has a silent mute and an LED indicator.

Also new are two boundary microphones and three lavaliere units with different polar patterns and side entry cables for unobtrusive use on television.

Shure 602

Micron Quad

Manufactured by Audio Engineering, the Micron range of radio microphone products has a number of recent additions. SQDH is a Small Quad Diversity Housing which will accommodate up to four VHF or UHF SDR receivers in a 1u assembly.

Facilities aimed at studio operation include transformer-balanced outputs on XLRs, mic/line output switching, antenna distribution amplifier and comprehensive headphone monitoring. Individual SDRs can be detached easily for ENG and other location uses.

Two antenna systems have been introduced as specific problem solvers for television studios and theatres. MACS multiple antenna combining system allows up to four sets of diversity antennae to feed one receiver rack, so that presenters and performers can move freely between studios. MCADS multiple channel antenna distribution system is a UHF device which feeds the signal from one pair of antennae to as many as four 8-channel diversity racks.

This means that up to 32 radio mics can be used with a single antenna, saving space in stage and production areas. A low distortion preamplifier to compensate for long cable runs has also been introduced.

Audio Engineering 603

RCF IEM intro

RCF has also released an in-ear monitoring system, the TX500 IEM, which comprises the TX501 Track transmitter and the TX501 R portable receiver.

Designed to deliver high power into the ear piece, rated at 120dB, the system has an automatic limiter for excessive volume. The earpieces themselves are made from non-allergic silicone and are designed to eliminate auricular occlusion by using acoustic transparency.

The transmitter works with a carrier frequency on the VHF range of 173MHz-240MHz, with seven pairs of frequencies available. It is a FM system with an audio transmission bandwidth of 40Hz to 40kHz.

The unit is powered by 12V AC-DC current and is 45x150x485mm weighing 900g.

RCF 604

READER RESPONSE No. 023

READER RESPONSE No. 024

Sennheiser UHF

Sennheiser's EM2004 UHF receivers are to be replaced by the EM3000 series, comprising an entirely new 16-channel selectable frequency receiver system in either single (EM3031) or dual (EM3032) channel configurations. The 1u facia features frequency select and set controls and a large backlit LCD screen simultaneously shows frequency, field strength, deviation and transmitter battery status.

Sennheiser 605

SMP from AEA

Audio Engineering Associates has two versions of its Stereo Microphone Positioner which provide secure and repeatable positioning of mic arrays. Users include Abbey Road Studios, Steve Albini and Tony Faulkner.

AEA also produces a compact battery-powered LD2020 "Winky Blinky" stereo scope.

AEA 606

Trantec radio

Using computer controlled test routines Trantec can now digitally set up new radio mic circuits in around five seconds. Three new systems have been launched - the VHF S3500 and S3000 (synthesized over a range of 165MHz to 225MHz) and the UHF S4000.

The fixed frequency S3000 uses PLL synthesized tuning. LED indicators denote power, AF peak, RF level and diversity channel (A or B) while other features include variable gain output.

The variable frequency S3500 gives 32 channel choice. Frequencies are contained within four organised banks allowing, for example, bank 1 to contain deregulated channels 173.8 to 175.00, bank 2 the fixed site channels, bank 3 the independent programme makers, and bank 4 a combination of all these. Features include multifunction receiver LCD showing frequency, RF level and VU, and diversity operation with front mounted nondetachable telescopic antennae.

The S4000 is programmed with 16 intermodulation-free frequencies contained within TV channel 69 for operation in the UK but can be configured with up to 32 frequencies to increase its capacity for the worldwide market. Systems are available in lapel, headworn, guitar pack and two handheld versions (Audio Technica dynamic or condenser).

Trantec 609

Beyerdynamic

An ultra-lightweight neck-worn microphone, the TG-X45 is recommended for drummers, keyboard players and dancers. It has cardioid pattern and a flexible gooseneck for accurate positioning, as well as malleable ear supports for comfort.

TG-X10 is a small dynamic microphone that can be mounted on a drum shell. It has a special shock mount to minimise mechanical noise and the supercardioid capsule is designed to withstand high SPLs.

S700 is a single channel handheld transmitter designed for use with the U700 UHF wireless system. The ergonomically updated design can be used with a variety of new capsules including dynamic, electret and true condenser.

Beyerdynamic 610

Sennheiser launches in-ear

Sennheiser has a channel switchable in-ear radio monitor system, EK 3052-U, which is a miniature UHF stereo receiver system, with PLL-controlled switchability over 16 frequencies. HiDynplus noise reduction circuitry provides a 110dB SN ratio. An onboard volume control has a cover to prevent accidental adjustment. The small size and light weight 130g (including battery) of the unit and an adjustable clip, mean the receiver is easy to wear during live performance. Two AA cells or an optional accumulator pack provide power. LCD indicators include low battery warning.

The SR 3054-U is a single-channel stereo UHF transmitter and the SR 3056-U a dual channel stereo transmitter, both for use with the EK 3052-U stereo miniature receiver belt-pack. The units are designed around Sennheiser's PLL-controlled RF frequency switchability, with 16 programmable transmission frequencies on each transmitter. These units has the same operational reliability, robust construction and ease of operation as other Sennheiser radio mics.

Sennheiser 607

Audix dynamics

Latest in the OM series of dynamic vocal mics, the hypercardioid OM6 claims a low frequency extension not typical of other dynamic mics. Together with a flat frequency response the company claims the OM6 can approximate the sound and performance of more expensive condensers. The OM6 joins the OM3, OM5 and OM7 dynamics all of which major on high SPL handling and good off-axis rejection.

The D4 dynamic is intended primarily for kick drum use and has a

new capsule designed to capture high SPL instruments with extended frequencies below 100Hz. The mic is flat down to 63Hz, albeit with a slight bump at 80Hz, and a gentle roll off below 40Hz. From 80Hz to 1kHz it is said to be extremely linear. It measures 4 inches long and 1 inch wide.

Audix 608

Audio Technica

The first of many new mics to be introduced in Audio Technica's PRO Series, the PRO35R is a small clip-on condenser instrument mic with a flexible boom mounting arrangement. The PRO95R is designed for acoustic guitar miking and also employs a flexible boom arm.

Audio Technica 611

Sennheiser

Introducing a new generation of Sennheiser stage mics the dynamic super cardioid MD425 has a capsule that is shock mounted on a rubber membrane and features an impact protection shield and an acoustically transparent stainless steel inlet basket.

Sennheiser 612

Shure dynamic

BG6.1 is a dynamic microphone with a swivel mount, which makes it particularly suitable for percussion duties. It comes with a 15ft XLR/XLR cable.

Shure 613

Small mic cuts a dash

Designed for TV and broadcast applications, the compact CMXY 4V stereo microphone can be used for single speakers, table discussions, on a boom or as a stereo spot microphone.
The microphone has three sections, the first of which consists of two rotatable cardioid microphones with lateral sound pick-up which are closely adjacent to one another. The second section consists of a swivel in which the two microphones are held, allowing the microphone section to be tilted into the desired direction. The third section is the base which also contains the output connector. The capsule section is only 41mm wide; the diameter of conventional coincident stereo microphones.

Schoeps 614

Microtech Gefell

A large, dual- diaphragm condenser microphone, the UMT800 can be used for a number of applications but excels on voice-overs. The gold-sputtered capsule is the same as that in the M7, UMT70 and UM921S mics.

Microtech Gefell 615

Lectrosonics UDR200B

Lectrosonics has introduced a new receiver for its 200 Series UHF transmitter range. It offers 256 selectable frequencies in 100kHz steps, and features a "tracking" front-end that retunes as the frequency is changed over the 25.6MHz bandwidth. Its Optiblend diversity system incorporates two complete channels right through to the audio outputs which are then blended, rather than switching signals earlier in the chain.
Lectrosonics' proprietary AutoSearch function automatically scans the local RF spectrum, detecting RF signals present in the vicinity and displaying their frequencies on the front panel. The same display can also show the user's name, frequency and group names and numbers.

Lectrosonics 616

Earthworks M55

Earthworks has added to its acclaimed range of omni microphones with the M55. In line with the established numbering system, the new microphone claims a frequency response to 55kHz within +1/-3dB, being flat within 1dB from 9Hz to 40kHz. Earthworks' investigations into the matter of impulse response and settling time have shown the performance in this area to be particularly good, leading the company to state that the microphone is accurate in both frequency and time to a degree that is unavailable from any other microphone it knows.

Earthworks 617

FOR FURTHER PRODUCT INFORMATION USE OUR FREE ENQUIRY SERVICE

Audix PH series speakers

Audix' PH-15vs and PH-25vs, popular with multimedia systems and other applications where small self-powered speakers are needed, have been upgraded. Video shielding has been added, and the amplifier power has been increased to 50W peak. Inputs are now balanced on floating phonos, and extensive protection against thermal overload, DC, and short circuits has been added.

Audix 618

Harbeth

Designed to extend the low frequency range of the HL-P3ES and HL-P3 monitors, the HL-Xtender is a wooden stand which incorporates a shielded woofer. This is coupled to an upward firing bass-pass vent which focuses the sound towards the listener and away from walls.

Harbeth 619

Dynaudio

The BM15A is an active version of the Dynaudio BM15 monitor and features two discrete power amplifiers and signal management. The HF driver has been upgraded to an Esotec and the system includes a 24cm bass driver and 100mm aluminium alloy voice coil. The BM6A active nearfield has its origins in the PPM2 but incorporates a MOSFET amp driven through a low frequency equaliser for tapering the response.

Dynaudioacoustics 620

FAR out monitors

Belgium monitor manufacturer FAR points to the benefits of having passive and active versions of monitors in its range for instances where one version better suits the circumstances.
The CR10 and CR20 passives are available in active form (CR10A and CR20A) and both are shielded as standard.
The company claims that the CR10 is surprisingly small for its low frequency extension and power handling while the CR20 employs a double voice coil kevlar driver and achieves 92.5dB sensitivity.
FAR's largest monitor is the 3-way CR100 with a 15-inch woofer and 7-inch kevlar midrange. Described as a compact 3-way, the DBW80 has a soft dome midrange for improved stereo imaging while the DBW100 improves on its bottom end. Top of the tree is the DBW200 3-way system with two 15-inch low frequency drivers and high sensitivity.
FAR speakers can be bought in a variety of different finishes ranging from wood to high gloss paint.

FAR 621

Spendor

A powered nearfield monitor, the QT100 combines an elliptical polymer cone driver with a soft-dome tweeter, crossed over at 5kHz. These are loaded in an asymmetrical, acoustically damped, reflex ported cabinet.

The frequency response of the units is 68Hz-22kHz (+/- 2.5dB) with each cabinet matched to within 0.75dB. SPL is quoted as 103dB @ 1m. Input to the integral amplifiers is electronically balanced.

Spendor 622

Quested low

Designed to complement the VS2205 active nearfield or the VS2108 active full-range monitor when more bass is needed, Quested's VS1112 is a compact 12-inch sub-bass. The attached amplifier module has a prefiltered line output to the main speakers while an optional plug-in programming card permits the unit to be used for multichannel film and TV post applications.

The VS2205 has been designed to stand on a console's meter bridge to act as a portable reference monitor while the VS2108 2-way design incorporates a custom high excursion 8-inch bass driver and 28mm soft dome HF. The VH2108 is a passive version of the VS2108 which can converted to active operation.

Quested 623

JBL monitors

JBL's DMS-1H studio monitor is now shipping with a choice of DSC280 digital system controller or the SMC24 analogue system controller. The monitor has 14-inch Neodymium transducers.

JBL 624

Genelec adds subs to 1029A

The 1091A subwoofer has been specifically designed for use with the 1029A biamplified active monitoring system.

The system has a wide dynamic range and incorporates Genelec's proprietary Directivity Control Waveguide (DCW) technology, which is found in all of the company's systems.

Powered by a pair of 40W amplifiers, the 1029A provides a frequency response of 68Hz to 20Hz (+/-2.5dB) from a 130mm woofer and 19mm hard domed tweeter.

The rugged new housing design of diecast aluminium has excellent heat dissipation properties and the monitors are also magnetically shielded so they can be mounted close to video monitors.

Genelec 625

ARX compact surround

Suggested for applications including cinema surround and audio visual installations, the Ambience 5 compact loudspeaker system uses a single, high-impact resin cab loaded with an 8-inch cone driver and a 1-inch soft-dome tweeter. The frequency response is quoted at 50Hz-20kHz +/-5dB and the power handling at 200W per programme. Options include 8 ohm or 100V versions and a choice of XLR or Speakon connectors. A subwoofer and a range of mounting hardware will soon be available.

ARX 626

ElectroVoice

Designed to add E-V top end to any speaker system, the High-Q Audio Rifle combines a passive 3.5kHz crossover with compression driver and 55 degree x 35 degree dispersion horn. Equipped with Speakon connectors, the unit is placed in parallel with the existing speakers.

ElectroVoice 627

International Distributors List

Country	Company	Country	Phone	Fax
Australia	Amber Technology	61	2 9975 1211	2 9975 1368
Austria	ATEC	43	2234 74004	2234 74074
Belgium	Amptec	32	11 281458	11 281459
Canada	Sonotechnique	1	514 3326868	514 3325537
Czech Republic	Audio Sales	420	2 544173	2 57311779
Denmark	New Musik	45	86190899	86193199
Eire	C.T.I.	353	1 454 5400	1 454 5726
Estonia	IS Music Trading	372	646 6053	646 6054
Finland	Oy HedCom	358	9 682866	9 6828489
France	Mille et un Sons	33	1 4667 0210	1 4789 8171
Germany	Mega Audio	49	6721 94330	6721 32046
Greece	Bon Studio	30	1 380 9605	1 3845755
Holland	TM Audio	31	302 414 070	302 410 002
Hong Kong	Linfair Engineering	852	2898 3133	2556 7186
Hungary	Audio Sales	361	214 9549	214 9549
Iceland	PFAFF	354	533 2222	533 2230
India	Pace Communications	91	22 633 5450/1/2	22 633 5453
Indonesia	Para-Di	62	21 829 2202	21 829 2572
Italy	Syncrom	39	6 32 429 71	6 32 449 17
Japan	General Traders	81	33 293 2274	33 293 5391
Korea	Avix Trading	822	565 3565	565 3561
Malaysia	Meteor Sound & Light System	60	90 365 726	90 365 739
Norway	Norsk Lydteknikk	47	64 93 20 90	64 93 01 51
Pakistan	Pakwestrex	92	21 772 3959	21 722 7259
Philippines	Stage Craft	63	2 816 1903	2 8171867
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Russia	ISPA	7	503 956 18 26	503 956 23 09
Singapore	Dynaudio Acoustics Singapore	65	251 1629	251 1297
Slovakia	Audio Sales	421	7 722 249	7 726 809
South Africa	Prosound	27	11 334 6550	11 334 6826
Spain	SGT	34	1 383 2160	1 383 9916
Sri Lanka	Sound & Vision	94	1 582 062	1 574 962
Sweden	TonKraft	46	31 795 75 95	31 795 76 95
Switzerland	J&C Intersonic	41	56 450 21 70	56 442 61 01
Taiwan R.O.C.	Linfair Eng & Trading	886	23214455	23932914
Thailand	Kamol Sukosol	662	222 2700	225 3173
Turkey	Imaj Television	90	212 2758310	212 2758384
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Tel: +44 171 403 3808
Fax: +44 171 403 0957

READER RESPONSE No. 025

Audix

Made in the US, the Nile V nearfield monitors are loaded with a handmade 7-inch woofer and a 1-inch soft-dome tweeter, matched to a crossover and front-ported panel.

Audix 628

Yamaha

YST-M7s are powered speakers designed to accommodate the outputs of a PC sound card and an additional line input. The integral 5W amplifiers are matched to a single full range 6.5-inch cone speaker.

Yamaha 629

Peavey

A high power, low profile wedge monitor, the Peavey HiSys 1MXT is loaded with a 12 inch Black Widow speaker and a CH 3 horn. The bass unit has a Kevlar Impregnated cone and the system is designed to handle 350W continuous power. Sensitivity is measured as 97dB (1W/1m). The speaker is fitted with Neutrik Speakon connectors.

Peavey 630

ATM Fly-Ware

Specifically made for use with the EAW KF850 speaker cabinets, the MEGS-KF850 truss system allows columns to be formed with the enclosures six deep, thereby allowing more versatile rigging combinations.
Based on the established MEGS-3X4 modular loudspeaker flying system, the new truss can be adapted to a variety of play angles and column gaps. The suspension points have been located so that only one is needed for each enclosure and there is the option of attaching a pull strap bar to the truss module to tilt the lower cabinets.

ATM 631

EAW Linear Activation

The LA212 is the latest addition to the Linear Activation Series and combines a 12-inch cone driver in vented enclosure with 2-inch exit compression driver on a proprietary wave-guide. Long term SPLs are said to reach 120dB.
An asymmetrical enclosure enables the LA212 to be used horizontally as a low profile stage monitor or vertically stacked for PA applications. The new enclosure is aimed at applications that do not require the low frequency output of the larger LA215.

EAW 632

Bag End

Bag End has added two models to its time-aligned Gem Collection of enclosures. Both models are fitted with handles and wheels.

The Quartz-R sub-woofer is loaded with four ELF 18-inch drivers, with a power handling of 1600W continuous sine wave. Crystal-R combines a pair of 12-inch cone drivers with a 3-inch coil compression driver coupled to a custom-designed oval HF wave guide.

Bag End 633

Tannoy 15

A replacement for the CPA15, the i15 has a new 15-inch dual concentric driver with double roll cambric suspension and halogen HF protection. The T40 is the sub-bass companion for the T12, i12 and i15 systems using a 15-inch driver in a rugged transportable cabinet with handles and pole mounts.

New monitors include the System 1000 nearfield which uses the latest 10-inch dual concentric.

Tannoy 634

Dynaudio C4

The C4A is the culmination of 12 months' research and development resulting in a 3 or 4-way system designed to work in any control room without the need for special flush mounting or acoustic redesign.

The system uses an acoustically optimised asymmetric enclosure and modular Active Bass Extension System units controlled by an analogue, or optional digital, active system controller. This technique means that a fully modular system can be created to suit almost any size control room or SPL requirement.

Each system can be customised for individual studios with three amplifier and crossover options giving expandable power configurations from 1kW to 5kW. Maximum SPLs of up to 126dB can be achieved at the mixing position in typical rooms of up to 100 sq m.

Dynaudioacoustics 635

Turbosound: more HiLights

A further addition to the HiLight range of enclosures, the THL-2 is a wide dispersion, full range enclosure intended for use in smaller PA systems and one-box-per-side installations.

A combination of a 15-inch low frequency driver, a 6.5-inch horn-loaded mid range and a one-inch HF driver on a proprietary horn is used to reproduce a 55Hz-20kHz frequency response with 90 degree x 40 degree dispersion. Sensitivity is quoted as 100dB, 1W @ 1m.

The new enclosure is suitable for use with either

the LMS-680 analogue processor or the LMS-700 digital device. The 15mm birch plywood enclosures are finished in blue textured paint with flush handles and metal grille. Speakon connectors are provided, along with flying hardware at three points.

Turbosound 636

Apogee Sound adds to AE

Additions to the AE Series enclosures are the AE-7 concert loudspeaker and the AE-7SB dual 15-inch sub-woofer. Apogee's most cost-effective enclosure, the AE-7 combines dual 10-inch cone drivers with a 2-inch ferrofluid-treated HF compression driver. The AE-7SB is described as a high efficiency system and is designed for easy flying or stacking with the AE-7.

Apogee Sound 637

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BAG END 2000

READER RESPONSE No. 025

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Technomad Berlin

The Technomad Berlin 15/H loudspeaker is designed to be used in tough environments and applications and like all the company's cabs is claimed to be fully resistant to water, sand, salt, temperature, mildew, condensation, chemical, insect and other damage.

Tour Model loudspeakers have a 5-position PassiveProcessor EQ system which contours the cabs performance for nearfield, flat, concert, voice and high-frequency bypass settings — the last of which shuts off the box's compression driver allowing it to be used as a pseudo-subwoofer.

Current users include the US Army, Navy and Airforce and Marines.

Technomad 638

Meyer Sound

Meyer Sound has introduced several new self-powered loudspeakers. The CQ-1 and CQ-2 are phase corrected, sound reinforcement boxes that are configured as high Q (the CQ-2) or low Q (the CQ-1) units.

Both can be flown and arrayed and offer consistent coverage for all frequencies in the horizontal and vertical planes, hence the name CQ ("Constant Q").

Meyer 639

Meyer Sound

A self-powered unit, the HM-1 Remote-Monitored Loudspeaker is designed to simplify installation by eliminating the need for 48V audio lines. Instead, the unit is powered by a simple 48V DC unipolar source.

With a total of 300W of biamplification, the HM-1 is loaded with a 7-inch graphite LF cone and a concentrically mounted soft-dome tweeter. As all driver protection and alignment circuitry is in the enclosure, Meyer points out that there is no need for external processing or amplification racks.

Flat frequency response is claimed from 40Hz-20kHz (at -6dB points) with symmetrical 100 degrees coverage in both axes. The magnetically shielded wood enclosure is available in black or white textured finish.

Also available is a subwoofer with 10-inch driver, designed to increase response at 40Hz by 6dB.

Meyer 640

Zobel Active

The Zobel Active One is a tri-amped active reference monitor designed for nearfield listening. Drivers are a hand-doped soft-dome tweeter and two low/mid units with ridged carbon-fibre cones. Active high-pass filtering allows room tailoring, and the design is claimed to provide a "directivity window" with little change to the sound off-axis.

Zobel 642

Martin Audio ICT additions

New to the ICT (Inductively Coupled Transducer) series of enclosures is the ICT10, a compact system designed for a range of applications. Available in black or white, ICT10 has a weather-proof cabinet which is also magnetically shielded for AV situations.

As with other ICT designs, the new enclosure has no tweeter voice coil but is has a frequency response of 80Hz-20kHz. The rated power is 40W RMS and sensitivity is specified as 106dB continuous.

Martin Audio 641

ElectroVoice debuts SX100

A 2-way system aimed at smaller applications than the established Sx200, the new EV Sx100 is loaded with a 12-inch cone driver and the DH2005 horn-loaded compression driver. Horn directivity is 65 degrees x 65 degrees.

Frequency response is quoted as 80Hz-25kHz for the enclosures, with an LF extension to 50Hz claimed when the optional Xp200A system controller is added. Power handling is 200W continuous.

Top hat fittings are standard and flying fittings are optionally available. Cabinets are polypropylene and weigh 15.9kg total.

ElectroVoice 643

READER RESPONSE No. 027

Is this the world famous PUK Recording Studio? No, it is a small control room at ARK recording.....

In 1985 I designed the famous PUK Recording Studio in Denmark. The 100sq. ft control room needed a very large monitor system, which was developed with the help from Poul Ladegaard of Bruel&Kjaer.

A 4 way active system using 10,000 Watts and 4 pcs 30" woofers was not seen or heard before, but a bit expensive. So I have worked on bringing the loudspeaker system and the control room design down in size and price. Today we have more large systems in Denmark that any other brand.

A 3 way AMPspeaker stereo system, including 2,400 Watt of amplifiers, low noise electronic crossover, 4 pcs 15" woofers, 4 pcs 8" midranges and 2 high power ribbon tweeters cost £14.000 excluding VAT. This system is flat down to 20Hz, and suits rooms up to 750 sq. ft.

A 4 way AMPspeaker stereo system, including 5.600 Watt of amplifiers, low noise electronic crossover, 4 pcs 18" subwoofers, 4 pcs 15" woofers, 4 pcs 8" and 2 high power ribbon tweeters cost £19.995 excluding VAT. This system will suit very large rooms, or give you headroom to play very loud.

Compare these prizes to the top models from other leading brands, and you will be pleasantly surprised. Especially when you find out that our control room design is part of the package. Call of fax me for free information.

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READER RESPONSE No. 028

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Studer

The new generation D827 DASH machine has a new autolocator with new sound memory functions, 20-bit converters as standard, and a new tape cleaning and stabilising system.

Studer 644

MD 4-tracks hot up

The MD 4-track personal multitracker market now boasts three contenders. Targeted at the amateur/part-time professional musician, the Sony MDM-X4 4-track MiniDisc recorder is designed to be easy-to-use. The benefits are claimed to be flexible editing and MIDI features that ensure a flexible system configuration, such as MMC/MTC synchronisation and compatibility with sequencing software from leading companies.

The MDM-X4's track edit mode, enables the user to designate a segment in each track, which can be edited freely among the four tracks. Another of the editing modes is section edit, which allows the user to directly edit all four tracks of a specific song section.

The mixer has four full facility inputs, two more arranged as a stereo pair, and two stereo effects returns, making a total of ten individual input channels. The console weighs 5.1kg and has external dimensions of 423 X 119 X 385mm.

Tascam, the originator of the portastudio has produced the 564 portastudio. A mixer section has 4 mono and 4 stereo channels, two auxes, 3-band EQ with sweepable mid, XLR mic inputs and four dedicated track outputs. The package allows instant location, the naming of track data and a bounce-forward facility plus a jog control, MIDI functionality and auto punch in/out with rehearse.

The Yamaha MD4 digital 4-track multitrack recorder offers almost instant track locate and start capability with eight programmable locate points per song. Editing employs "combine and divide" functions and cue-list style programmable playback and bounce down to any track with simultaneous 4-track playback. Other features include precision programmable punch-in and punch-out and simultaneous 4-track recording.

Sony 647

Tascam 648

Yamaha 649

ADAT Pro multitrack launched

The Alesis Meridian features the new ADAT Type II format, which records eight tracks of linear 20-bit digital audio without external converters or multiplexers. The machine allows tapes to be recorded and played back at 16-bit or 20-bit formats and tape recorded on a 16-bit ADAT-compatible recorder (now referred to as the Type I format) is completely compatible with a Meridian. Additionally, the ADAT Optical and ADAT Sync jacks on the back of the new unit are exactly the same as on the original machine's allowing the Meridian to be combined in a system with older machines and having built-in time code it can function as the master in such an arrangement.

Inputs and outputs for time code, MIDI, word clock, and video reference in and through jacks are all built in while for location recording and postproduction applications, a new read/write SMPTE/EBU timecode track allows discontinuous timecode to be printed onto a special subcode of the tape without using up an audio track, so different sections of tape can be uniquely identified without running the risk of mistakes in calculating offsets from the built-in sample accurate ABS timecode of the ADAT format. The machine can also read and write 100 named locate points and SMPTE/ABS time offsets to the data section at the head of an ADAT tape.

The transport is manufactured by Matsushita and has seen millions of hours of industrial service in Panasonic's top-end VCRs and duplication systems and features a direct-drive capstan, direct-drive reel motors (no idler wheel to clean or replace, and no brake adjustments required), tension sensor arms, twin tachometer output and automatic head cleaning wand. This new transport has allowed the introduction of a multispeed jog-shuttle and an analogue aux track, with its own XLR IO, which acts as a "ninth track" for cueing.

Individual Meridians in a system may be offset from each other using the onboard 10-key pad, or by various methods of capturing an existing offset, allowing digital copy-and-paste editing from tape to tape. Individual tracks may be delayed up to 170ms, Auto punch-in and out with preroll and postroll are supported, as is Rehearse mode. Auto Play and Auto Return are used in conjunction with any of the 100 locate points in the Meridian's memory, and all of the locate points can be given an 8-character alphanumeric title and stored to the data header at the front of the tape. Onboard digital routing allows for digital copying from track to track within the same machine or between any tracks of an ADAT system.

Meridian has individual input select switches on each track and the machine can record from a digital input on one track at the same time that it records from an analogue input to another track. Connectors are provided on XLR and multipin at +4dBu. A new remote has been developed for direct control of eight Meridians while a remote meter display will also be available.

Alesis 645

Studer ADAT Type II

Studer will also produce a version of the ADAT Type II called the V Eight with a number of enhancements.

The Studer machine adds a monitor mixer, analogue and digital converters based on those found in the D827 DASH machine, higher gain inputs and outputs, a parallel port and Sony 9-pin. The V Eight will start shipping at the end of the year for 15% more than the Alesis Meridian.

Studer 646

Tascam DA-98

The DA-98 adds features for the same price as the current DA-88 and has on-board sync capabilities, MMC, and Sony P2 protocol. A 37-pin D-sub connector allows parallel interfacing. The machine has 20-bit resolution, 64 times oversampled AD converters with switchable dither plus 20-bit eight-times oversampled DA converters.

Cosmetically the machine adds a large LCD with dedicated function keys, individual monitor select switches and confidence monitoring. It can be combined with existing DTRS machines in a system.

Tascam 650

BASF tapes

Following its acquisition on 1 January by the Korean chemicals group KOHAP, BASF Magnetics now operates under the name of EMTEC (European Multimedia Technologies) Magnetics GmbH and the new company will continue to produce professional and data media products under the BASF brand for the next five years.

The range of BASF Digital Master 936 cassettes for the DTRS system has been enlarged by the addition of a cassette with 30 minutes recording time. The range now comprises 30, 60 and 113 minute cassettes.

EMTEC 651

FOR FURTHER PRODUCT INFORMATION USE OUR FREE ENQUIRY SERVICE

Prism Sound stereo EQ

Prism Sound has introduced the MEA-2 precision stereo equaliser which it has produced in agreement with producer and engineer Leif Mases who designed the unit. Offering four separate equaliser sections for each of the two channels, the unit has stepped controls and a claimed degree of precision that allows complementary boost and cut settings to undo EQ changes.

The MEA-2 offers 84 discrete frequencies per channel on completely overlapping frequency ranges (in parallel bands) while the circuit design claims a ring-free sound even for the narrowest bandwidths - all sections are switchable between a shelving characteristic and five different peaking filter bandwidths.

Prism Sound plans to release other products in the Maselec Master Series including a stereo compressor and a stereo limiter,

Prism 652

dbx Blues

The new Blue range of dbx processors will start shipping this year. The range currently includes the 160S stereo compressor limiter, built around the dbx V8 VCA, which offers hard-knee and dbx OverEasy compression, with manual or programme-dependent time constants.

Partnering this is the 786 mic preamp complete with meters, subtle HF EQ and a "super low Z" setting for very low source impedance microphones. Its output can be analogue with two buffered outputs per channel, or digital using dbx's proprietary Type IV conversion system to deliver AES/EBU and SPDIF outputs.

AD conversion is available separately in the 704 which claims performance equivalent to 27 bits.

dbx 653

Digital AM

Heralded as the first true-digital mono AM broadcast audio processor, Tiesseci's 4500AM boasts 5 bands, high resolution algorithms and what the company describes as an "FM sound". The unit has 12 presets and a big display working in conjunction with assignable front panel controllers. Other features include am equaliser dedicated to optimising high frequencies, low pass filtering from 10kHz to 4.5kHz, day/night presets, hardware and software expansion (the latter through free Internet downloads), and Windows 95-based modem remote control

Tiesseci 654

Smart Research

Smart Research has expanded the range of its C2 dynamics products. The C2 dual channel stereo linkable compressor has variable envelope controls and an additional Crush switch which adds equalisation for a more blatantly processed compressed sound.

This unit has been joined by the C2M - a simplified stereo unit with one set of front panel controls - and the C2R stereo expander version designed to work in conjunction with other C2 units for multichannel control.

Sounds Incorporated 655

Junger digital

Junger Audio's redesigned digital filter processor the e07 is a 2-channel parametric 4-band EQ and the filters are calculated with doubled sampling rate of the input signal allowing it to work with 96kHz sources.

Presented for the first time is the Voice And Monitor Processor VAMP1 which is designed as an input interface for audio workstations with inputs for microphone, analogue and digital sources. It has automatic gain control for all input channels giving optimised signal levels on the output. All input signals and the processor output can be monitored independently of the recording function.

The digital MPX Power Limiter mpx1 is targeted at FM transmission and combines a peak deviation limiter and modulation power limiter. The peak level limiter has adaptive spectral processing of the type in the company's d05.

The company also has a 24-channel reference AD converter made by Stage Tec with an Audio Data Packing module for 24 channels developed by Junger.

Junger 656

LA Audio

Based on Crystal converters, a 20-bit AD option is now available for the LA Audio Classic Compressor, Classic Channel and Classic Equaliser. The units have switchable AES/EBU and SPDIF output formats available on XLR, phono and optical plus switchable 44.1/48kHz sampling frequencies with overload warning LEDs.

LA Audio 657

Stage Tec 28-bit ADCs

The Stage Tec Nexus digital routing and interconnect system's new microphone inputs now feature 28-bit ADCs on 4-channel cards claiming 22 dBu maximum input level and 150 dB dynamic range, with adjustable gain from 0 dB up to 70 dB. In addition to the 24-bit output for the Nexus coupling field system, there is also an unprocessed 28-bit direct output, which a Cantus mixing console attached to the system can use.

Stage Tech 658

dbx

An upgrade to the Project 1 266 dual compressor gate, the 266A has an over-easy/hard-knee switch and switching between +4dB/-10dB operating levels. An internal PSU replaces the earlier external supply and the casing is more rugged. The two channel unit has auto-dynamic attack, attack and release controls, program adaptive expander gates, balanced inputs and sidechain insert.

dbx 659

Galaxy-Valley 730LT

Galaxy Audio, parent company of Valley Audio, has introduced a digital dynamics processor, the 730LT. The whole gamut of dynamics processes is available, including compression, limiting, expansion, gating, de-essing and ducking, all in the digital domain, and on top of this it offers AD and DA interfacing and stereo width control. Its front panel uses a "dead face" display, which appears solid black when not powered but reveals an array of informative LEDs when switched on.

Galaxy Valley Audio 660

dbx 20 Series EQ

dbx's latest EQ range comprises three graphics, offering single and dual 1/3-octave and dual 2/3-octave, all featuring additional functions besides the basic EQ role. dbx Type III noise reduction is included, giving over 20dB of noise reduction and overall gain control can be set with dbx's PeakPlus limiting. LEDs show levels, limiter operation and clipping, and further facilities include switchable slider range (+/-6 or 15dB), a low-cut filter and ground lift.

dbx 661

Spatializer Audio Laboratories

A 1u rack device that retrofits to existing mixing desks, the Spatializer Retro 3-D audio processor allows the user to position sounds in a 3-D field, using the pan controls on the desk.
According to the manufacturer, the console's 90-degree pan pots become 270-degree positioning controls, which will wrap the listener in a surround panorama that can be experienced on any stereo system. Spatializer systems have been used on television broadcasts, films and albums by artists including Madonna, Michael Jackson and Barbara Streisand.

Spatializer 662

BSS DI

The AR-133 active DI/line balancer includes phantom power and battery supplies with auto switching. Inputs are on jack and XLR while attenuation is 0, -20 or -40dB with a ground lift. The box uses an enhanced version of the audio path found in the industry standard AR-116.

BSS 663

ARX

The DI-4 quad direct box/stereo line mixer allows unbalanced to balanced interfacing with gain or padding, ground lift, stereo mixing, plus aux sends for monitors and effects with a stereo aux return for signal rerouting into left and right busses.

ARX 664

ADgear-GML Over Quality

ADgear and GML have joined forces to recreate the now-deleted Urei 1176 mono compressor in a stereo form. The Over Quality UR-76S emulates the Urei in basic operation and panel layout, and adds an input level meter switch and significantly greater S/N ratio.

ADgear 665

Fairman tube mastering

Following on from the TRC (Tube Recording Channel) mono valve processor, Fairman's Tube Mastering Channel (TMC) is a stereo compressor based on the Fairchild 660/670. The VCA is pure Class A push-pull stage while quartets of matched valves are used throughout. Twenty-position switches with hard gold contacts are provided for gain and threshold setting in 0.5dB steps. The power supply uses a valve rectifier for the high voltage.

Fairman 666

Weiss's Gambit

Weiss Engineering's Gambit Series EQ1 parametric equaliser features a 96kHz sampling frequency and a specially designed user interface and is claimed to be a "state-of-the-art" digital EQ.

Among its features are seven fully parametric bands, each of which can be switched to any of the following: low cut, high cut, low shelf, high shelf and peaking. Also included are 22 touch-sensitive knobs for parameter setting, 384 snapshots, MIDI control of parameters and a large LCD display with real-time frequency response display.

The unit can redither from 16, 20 and 24-bits, with optional 96kHz sampling processing. Future developments on the unit will be emulation of analogue EQ and linear phase filters.

Also new is the ADC1 22-bit converter, which features a correlation technique to reduce any shortcomings of the conversion process. As it is a modular unit there is capacity for future upgrades.

Weiss 667

Amek

The Rupert Neve-designed 9098 dual mic amp and 9098 compressor-limiter are described as "realistically priced" dual-channel units. The former has separate gain, trim, phantom power, phase reverse, mute and high pass filter and an 8-segment bargraph meter plus stereo AB and MS circuitry with a width control. Each channel also has a DI input.

The compressor features "virtual-Class A" circuitry and follows the designer's philosophy developed in the 2254 device of the late 1960s. It adds an Ambience mode which is claimed to remove or reduce excessive ambience and unwanted reverberation from signals.

The compressor section has variable ratio (up to 20:1), threshold, output gain make-up, attack and release times, plus autorelease and hard/soft knee selection. The limiter section has threshold adjustable from 0dB to +23dB, variable release time and a switch selected fast attack mode. VU meters display gain reduction, input, output and sidechain signals.

Amek 668

In the words of the reviewers:

"...All you really need to know is that it is a Lexicon, it sounds as good as the name implies and it is affordable. Now go buy one."

Roger Nichols, EQ Magazine

"I highly recommend that you get your hands on one of these units and check it out for yourself. Even if it doesn't change your musical life...I'm sure you'll agree that the MPX 1 is simply stunning. It offers outstanding effects and a brilliant user interface at a reasonable price."

Barry Cleveland, Mix Magazine

"It beams with intelligence and shimmers with outstanding sound...an excellent choice for live and studio applications."

Jon Chappell, Guitar Magazine

"...they'll have to pry it out of my cold, stiff fingers."

Jim Aikin, Keyboard Magazine

The MPX 1 – get your hands on one today.

Cutting Edge

The US-made Omnia.fm is a digital multiprocessor aimed at FM radio stations. An innovative inclusion is an HTML protocol output, enabling the user to address the unit through any Web browser, running on any major type of computer. This eliminates the need for specialist, platform-specific software and enables communication via RS232, modem, 10BaseT or even the Internet.

Cutting Edge claims that as all the processing algorithms and functions are on a PC card rather than the usual EPROM set, new functions can be added by simply changing the card. Further, using a soft DSP configuration means that the position of DSP elements can be changed to suit the processing application.

Audio processing functions include wide band leveller; time-alignment bass boost; time-aligned 4-band crossover; 4-band dynamic peak limiter; final limiter; stereo encoder; and selectable composite clipper designed not to interfere with the 19kHz pilot tone, which is added post-clipper.

Cutting Edge 669

Focus on blue masters

The Focusrite Blue 300 mastering controller has been developed in response to the requirement for high quality routing and monitoring control in mastering.

It provides analogue and digital source selection, precision monitor control with speaker and headphones selection, recording path routing with inserts and high quality stereo peak metering. An oval shaped remote connects to a 2u master module. The Blue 300 has eight stereo analogue inputs which can be selected on two independent stereo signal paths, with six digital inputs added using the Blue 260 DAC. This 20-bit device uses static logic (no DSPs) and complements the Blue 245 ADC which features six selectable digital inputs and a fully regenerated AES output.

The company has also upgraded its Blue 315 isomorphic EQ and Blue 330 mastering compressor/limiter. The former benefits from more EQ shapes including two bells and 2 shelves plus shelves can now be switched separately to bell mode for a maximum of four simultaneous bell curves. The low band has also been extended. The 330 sports a quieter and lower distortion Class A VCA circuit and a lookahead limiter achieved with an audio delay.

Focusrite 670

Meek valves

As a valve extension of the development of the JoeMeek stereo compressor, Studio Channel and Pro Channel, the VC2 Tube Channel incorporates a mic preamp, compressor, enhancer and gain makeup stage in a single channel.

Dual channel enhancement is provided by the VC4 which offers individual drive, Q and enhance controls for each signal path.

Joemeek 671

Night Technologies EQ

Night Technologies' Nightpro processor range has grown with the addition of an equaliser that builds on the reputation of the EQ3 with its distinctive AirBand high frequency EQ. Not only is the EQ3-D less expensive than its forerunner, but it adds an extra feature to the AirBand control itself, having a user-adjustable frequency elbow on its shelf. This operates from 2.5kHz to 40kHz, allowing the effect of the AirBand to be shifted around to avoid noise and sibilance in the source material. The other five bands are retained as before, with fixed centres, 2.5 octave widths and 20dB of boost and cut, using NTI's patented circuitry to avoid phase shift and distortion.

Night Technologies 672

Harris

A2D2A is a 20-bit unit which can perform AD and DA conversion simultaneously. Sample rates are 48kHz, 44.1kHz and 32Hz, with the ability to lock to an external AES/EBU reference signal. The analogue inputs are equipped with level LEDs and the digital interface also supports SPDIF.

Harris 673

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READER RESPONSE No. 030

Yamaha

Three analogue graphic equalisers and a compressor/limiter in the medium price range are available from Yamaha. The GQ2015A is a 2-channel 15-band equaliser, the Q2031B is 2-channel 31-band, and the GQ1031C is 31-band mono.

Yamaha 674

Bel

The 7210 audio delay synchroniser is designed to synchronise audio to video. Providing up to 1.3 seconds of delay, it has a nominal sampling frequency of 32kHz-48kHz and references to AES/EBU, word or video. The unit can be remote controlled with a PC and has a "soft nudge" facility which enables adjustments to be made in real-time without glitches. Delay times can be incremented in samples, milliseconds, fields or frames with PAL or NTSC values available. The device can also be used as a high quality converter.

Michael Stevens 675

Dolby

Designed to assist in the production of audio, video and multimedia programmes, the DP562 decodes Dolby Digital material with up to 5.1 channels. It also provides 4-channel Dolby Pro Logic decoding for matrix encoded surround material. As the Pro Logic decoder is digital, it is now possible to monitor Dolby Surround-encoded PCM soundtracks without converting them to analogue for surround decoding.

Dolby 677

Alesis Wedge

Alesis's Wedge Desktop Master is the company's new top-of-the-range processor and has a full range of reverb types: halls, plates, rooms and a number of specialist programs including Virtual Stereo rooms, gated reverbs and effects created for such postproduction applications as ADR. The Wedge also offers delay, chorus, flange, rotary speaker simulation, autopanners and multi-effects. For real-time adjustment of parameters the unit has four 45mm sliders, while the Impulse Addition button allows each reverb parameter to be previewed by emitting a full spectrum audio impulse. This feature is intended to make manipulation of such features as diffusion, decay and reverb swirl easier.

Alesis 679

Martech MSS-10

Martech has begun a range of high definition audio modules with the MSS-10 microphone preamplifier. An unusually styled case with retro meter and carrying handle features independent mic and line gain controls and switchable phase, phantom and pad along with a Mute switch. Martech makes bold claims for the MSS-10's sonic qualities, and for a limited time is backing them up with a 60-day money back guarantee.

Martinsound 676

Behringer gains valves

The Pro series of analogue processors, the first Behringer products to use surface mount technology, was launched with the Composer Pro MDX2200 - an expander/gate with compression and limiting and featuring status indication employing light-pipe technology.

Five valve processors have followed in an 8-channel tube interface, a 4-band stereo EQ, a tube version of the existing Composer, a precision mic preamp, and a tube version of the Ultrafex. All feature polished chrome front panels and a Warmth control for adding valve influence.

Tube emulation is one of many primarily dynamics-based functions on the Ultra-Dyne DSP 9000, a digital processor using multiband techniques to provide facilities for mastering applications. Also included is a multiband exciter and a multiband de-noiser for removal of noise, hum and crackles.

Another major addition is a new series of digital processors featuring 20-bit IO and 24-bit internal processing. The Virtualizer DSP 1000 uses what Behringer calls Virtual Room technology for reverb algorithms. Two parallel processors allow multi-effects use with a selection including delay, pitch shifting, vocoder effects and modulation. The Feedback Destroyer DSP 1100 uses automatic calibration of 24 parametric filters to identify and attenuate PA system feedback frequencies, either as a one-shot operation or continuously scanning, and its filters can also be used manually.

Behringer 678

Lexicon cards

The Harmony FX card for the PCM80 is the most recent in a range of insertable audio software designed to extend original options.

The card contains four new algorithms, Auto Harmony, Pitch Correct, MIDI Chords and Auto Chords, all of which combine one of four intelligent pitch shifters with a PCM80 Chamber reverb. These units detect the pitch of an incoming signal and then output pitch effects based on it. The algorithms are intended to work with monophonic sources. In all of these the reverb follows the pitch shifter in series.

Also new is a dual reverb card for the PCM90, which offers ten completely new algorithms, plus 200 presets. In addition there are ten "blank slate" pre-programs representing each algorithm; the card offers new combinations of reverb effects and a surround sound reverb algorithm.

Lexicon 680

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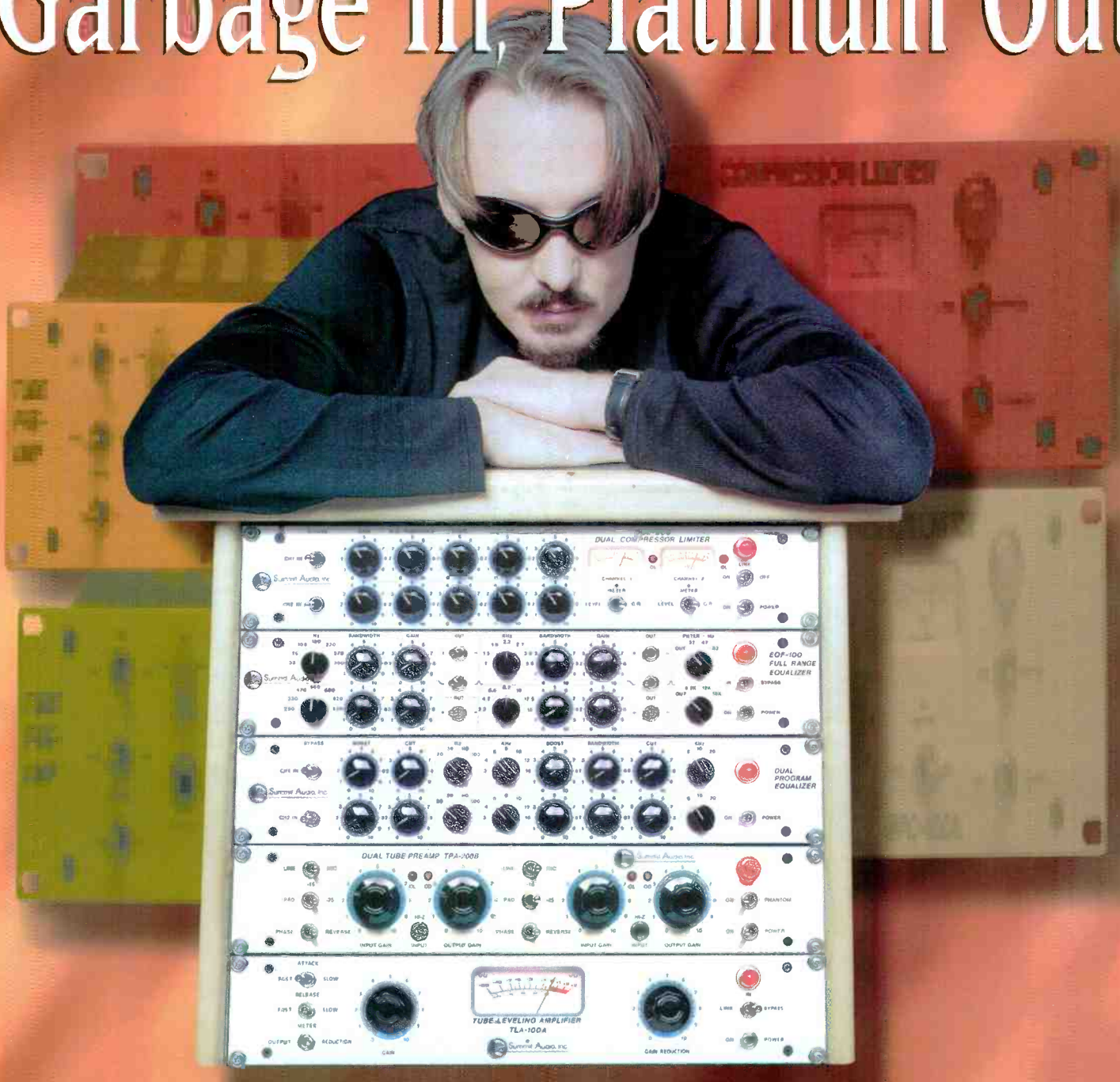
Garbage In, Platinum Out



Summit Audio Success Stories

Butch Vig, engineer, producer, co-owner of Smart Studios and the drummer for Garbage, relies on Summit gear for all his work. Vig engineered the group's latest platinum album, "Garbage," nominated for three Grammys this year, as well as producing albums for Smashing Pumpkins, Nirvana, Soul Asylum and Sonic Youth.

"Whether I'm working at Smart Studios or I'm on the road touring, I always use Summit tube gear. I particularly like using the DCL-200 Compressor Limiter for tracking vocals. It colors the sound very subtly, while retaining its warmth and transparency. Often I will compress a vocal performance quite a bit. This allows me to place it exactly in the mix while maintaining a lot of presence and natural dynamics without sounding too loud. This works especially well when the mix is very dense."

"Summit just keeps coming out with great gear. We can't wait to get our hands on the new MPC-100A Mic Pre-Amp/Comp-Limiter. It is a high quality and great sounding input device that will further enhance our music."

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READER RESPONSE No. 031

Summit Audio

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db Technologies

The DA924 has 24-bit resolution and will support sample rates of up to 96kHz. The manufacturer claims triple segmented architecture improves the accuracy of the ten most significant bits. DC offset is said to provide superior low level detail by keeping low level signals away from the most significant bit transitions

Jitter is reportedly eliminated in the incoming datastream by use of a DSP-controlled crystal oscillator and a short buffer memory for temporary storage of the incoming data.

db Technologies 681

Sony comp/expander

Sony has announced a dual channel compressor/expander which includes an MD limiter function designed to avoid high inputs to MD recorders. The SRP-L200 has upward and downward expanders, a harmonics/overdrive enhancer control, and variable knee control of compression. External key inputs and key-through outputs are provided along with 7-segment gain reduction metering and status indicators.

Sony 682

CLM Dynamics

Specifically designed for M/S recording, the DB400s has four mic channels with metering and limiting on each. Two pairs of M/S signals can be accommodated and the manufacturer says the unit also includes proprietary WHIP advanced stereo width management. SSM and dbx ICs are used in the design.

CLM Dynamics 683

ART processors

ART has introduced two sharply contrasting signal processors.

The first is the newest addition to the Vactrol Compressor line, the Pro VLA Vactrol/Tube Levelling Amplifier. It borrows from classic valve limiter technology in having electro-optical and tube electronics to deliver a "vintage" sound without added noise. This is intended to provide the fast, punchy and transparent characteristics of the "LA" type levellers and has an auto setting which according to ART behaves more like vintage stereo Neve modules, providing what it describes as a smooth, loud and fat sound.

At the other end of the technological spectrum is the Quadra/FX Processor, a digital multi-effects unit capable of processing four individual channels with separate effects. It uses two of ART's proprietary VLSI ASICs to provide a wide range of algorithms including reverbs (some in true stereo), delays, chorus, flange, tremolo and panning effects and pitch shifting. An exclusive ART programming aid is a MORE feature, which enables the user to enhance any program with more of the same at the touch of a button.

ART 684

TL Audio Crimson additions

TL Audio's Crimson range of processors has expanded to six units with the addition of the 3051 voice processor and the 3013 stereo 4-band parametric EQ. The 3051 combines a mic preamp, compression and equaliser, and also has a line input allowing it to process any source. Phantom power, gain control, phase reverse and low cut filtering are available on the preamp, while the compressor has fully variable threshold, ratio and gain make-up with switchable fast and slow modes. EQ is 4-band, with switchable shelving on high and low bands and two fully variable mid bands.

The 3013 is the solid state equivalent of the established EQ2 valve equaliser, with two channels of fully parametric EQ plus high and low pass filters and onboard mic preamps. Like the EQ2 it features line and instrument inputs, and a stereo mode where both channels are controlled by one set of knobs.

TL Audio 685

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AMID a number of 'test discs', one has emerged as the preferred choice for professional and amateur users alike. Whether you're making a practical assessment of a studio control room, balancing a sound reinforcement rig, putting a piece of outboard gear through its paces or simply demonstrating equipment, Sound Check offers a comprehensive set of test and reference signals along with a variety of audio and programme sources to suit most requirements.

Following closely in the footfalls of the original and popular Sound Check test CD, Sound Check 2 refines a winning formula and adds even more reference material. The pedigree of the disc itself matches that of its authors: test signals have been sourced from a B&K Type 1049 Sine-Noise Generator, individual instrumental sounds are all purpose recorded for Sound Check, musical extracts cover a broad range of styles from Decca classical material to pop and mastering has taken place at London's famous Abbey Road studios. Authors Alan Parsons and Stephen Court have experience and reputations to match drawn from their years in the recording and live music industries.

Available in two versions, Sound Check even offers the means to interpret your system's performance. If you have access to spectrum analysis equipment, you won't need Sound Check's built-in Audio Response Analyser —you'll settle for the single disc version. Alternatively, Sound Check comes in a double jewel case with integral battery-operated analyser allowing quick and easy measurements to be made.

Either way, the definitive test and demonstrations CD just got better.

Low-cost Drawmer MX30

Drawmer has debuted a low-priced gated compressor limiter called the MX30. The 2-channel 1u processor incorporates some proprietary audio circuits from the company's more expensive boxes and each channel has a variable threshold gate with Programme Adaptive circuitry. This continually optimises such parameters as attack, hold, ratio and release and is followed by a variable threshold, variable ratio soft-knee compressor with fully automatic attack and release and an output section with variable gain and threshold zero overshoot limiting.

The unit can work in dual channel or stereo modes in which Channel 1 controls become the master. Connectors are provided on balanced XLRs and unbalanced jacks.

Drawmer 686

AMS 1081 channel amp reborn

The first AMS Neve VX console, at Right Track in New York, has been fitted with a Direct to Fader Input facility on the Channel Section of the input module, providing the capability to bypass the entire front end of the console and allowing users who want a sound different from the VX to use 24 of the classic 1081 Channel Amplifiers. Alternatively, the signal can be applied directly to the fader with minimum signal path and switching.

The Fader Direct Input is controlled by a bank of switches in the Monitor section of the console. There is a Safe switch for each bank of 12 modules to prevent accidental changeovers mid-track. All channel modules in the console are fitted with the Direct to Fader input. The control switches are arranged in banks of 12, as are the channel buckets. The input switching can be controlled as an event by Encore automation.

The 1081 Channel Amplifier is among the most highly regarded microphone/line amplifier-equalisers ever designed and meet the demand for audiophile Class A/B analogue circuitry, these units have been manufactured to the original specification, even using transformers created by the original manufacturer.

AMS Neve 687

Studer digital

Studer has announced that the Super-ADC 22-bit upgrade kit for the D19 MicValve Valve Dignified Preamp is now being delivered. The valve sound of the unit is not the sound of a single particular valve design, but can be varied to achieve a high degree of individuality using the front panel controls.

Owing to the modular design of the standard 20-bit AD stage, the Super-ADC module can be plugged in and the unit automatically recognises it while the original AD converter remains in full operation.

Studer 688

Leitch Glue covers AES interface

Three new products join Leitch's Digital Glue range, and their dedicated AES/EBU interfaces have given them the name AES Glue. New converters comprise the ADC-6880, a 20-bit ADC with up to four separate outputs, and its complement, the DAC-6880. Both come in balanced and unbalanced versions and up to ten modules can be accommodated in Leitch's 2u 6800 and 7000 Series frames, together with any necessary digital video converters.

Synchronisation of multiple AES/EBU devices is the job of the DAR 6880, an AES reference and tone generator module. This uses the Digital Audio Reference Signal (DARS) standard to provide synchronisation and other utilities, generating a DARS word clock, DARS Silence and DARS Tone. It can be used to reference a complete system or for test and alignment of digital equipment.

Leitch 689

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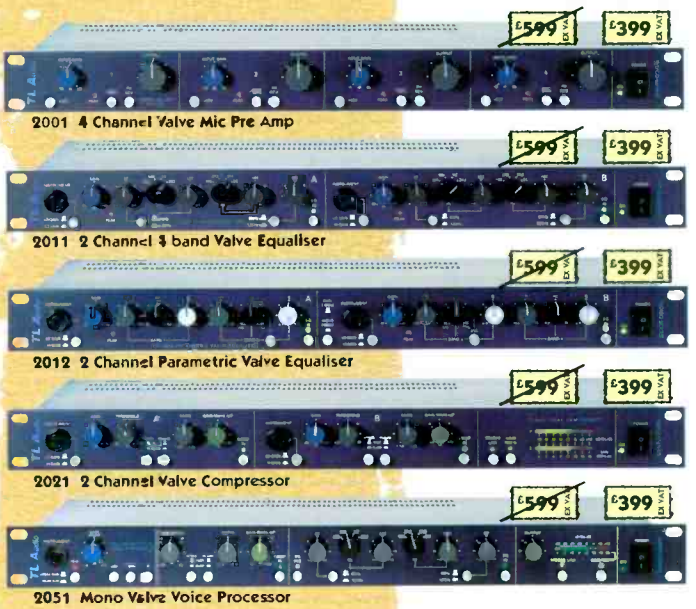

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Symetrix 628

An upgrade of the 528E voice processor, the 628 digital voice processor combines a mic preamp, 20-bit AD converter, de-esser, downward expander/gate, compressor/limiter and parametric EQ in 1u. Users can store 117 presets and access 11 factory presets. AES/EBU or SPDIF outputs are switch selectable.

Symetrix 690

Symetrix 562E

The company has also released the 562E expander/gate which employs AutoWindowing as a means of better controlling the envelope parameters. It also has high and low key filters and a side chain feature that moves the statistical energy centre of the gated signal forward to ellminate clicks that can be created with ultra-fast attack times.

Symetrix 691

DOD

Three more equalisers have been introduced. The SR430Q is a dual channel 15-band 2/3-octave unit. The SR431Q is a mono 31-band 1/3-octave device. The SR831Q is also a mono 31-band 1/3-octave equaliser but in a larger casing.

DOD 692

GP SoundPals

Five new products in the digital, modular SoundPals range are a no-frills, 4-channel mixer (DMIX-41), a 2-channel fader (DFADE-2), 20-bit DA and AD converters (DAC-20 and ADC-20), and a 20-bit mic preamp (DMIC-20) with a built-in 20-bit AD.
Several SoundPals can be configured to perform a variety of functions and are claimed to provide affordable processing to those who can forego a console-based interface. Shipping is expected in the third quarter this year.

Graham Patten Systems 693

Symetrix 606 delay unit

Symetrix has launched its first foray into effects processing with the 606 Delay FX Machine. Designed to couple vintage controls with state-of-the-art features, the 606 has many more knobs than is usual for a modern effects box, allowing live function adjustments without scrolling menus. In layout it resembles a classic DDL, with controls for delay time (up to 2.6 seconds depending on the mode), feedback and modulation for each of two independent delay lines. These can be used separately, ganged together in stereo or placed in series for a variety of effects, and further parameters allow control over diffusion, filtering with modulation and room simulation. Six separate modulation sources can be used to control almost any parameter in the unit, and real-time MIDI control is provided of all parameters including MIDI clock delay sync.

Symetrix 694

PreSonus dynamics processors

PreSonus' Blue Max compressor/limiter adopts a novel approach to the simplification of the compression process. It has full manual adjustment available when required, but also features 15 "smart" presets for various sources including vocal, percussion, fretted instruments and keyboards, as well as limiting presets and a special compression effect. Connections are provided for sidechain access, stereo link to a second Blue Max, and a direct high-gain instrument input.

It is joined by the less colourfully-named ACP-2, a 2-channel, stereo compressor/limiter and gate with full manual operation and an auto time constant override. High-cut filters are fitted to the gates for frequency-conscious action and gate key inputs are provided as well as compressor sidechain access.

PreSonus 695

LA Millennium

Comprising the GCX2 gated compressor, EQX2 Dual 3-band parametric equaliser, MLX2 dual microphone-line preamplifier with DI input and MPX1 microphone processor, LA Audio's affordable Millennium range is now shipping.

The MPX1 is a single-channel processor designed for one-step processing of vocal or solo instruments and combines a mic/line preamplifier with DI input, noise reduction, a 4-mode autocompressor and equaliser in 1u.

The EQX2 a dual channel 3-band parametric equaliser, which can also be configured as a mono 6-band unit, and offers variable frequency and 15dB cut and boost. Each band has variable Q and each channel is also equipped with a high-pass filter.

The MLX2 is a dual-channel mic preamp which caters for line level and instrument connection.

SCV 696

Digitech

An update of the Studio Quad signal processor, the V2 adds new effects modules and 80 new programs. The programs have been rearranged for easier location and the IO facilities have been improved. A software upgrade is available to owners of the earlier unit. Designed for live or studio applications, the Vocalist Workstation offers four-voice vocal harmonies, as well as a Gender Bender function which can mimic male or female voices

Digitech 697

SPL saturation

Complementing its digital red products, SPL's Machinehead digital processor is claimed to simulate the tape saturation effects of analogue tape machines. The sonic effect is said to increase loudness, power and warmth. Intended for use with solo instruments or complete mixes, controls are provided for input and output gain, drive and HF damping. IOs are AES/EBU and SPDIF with wordclock, MIDI control and a computer interface.

SPL 698

Shure thing

Combining feedback reduction with a programmable equaliser, the Shure DFR11EQ is a half rack unit with a 24-bit signal path and 20-bit converters. The sampling rate is 48kHz.

The feedback reduction circuitry automatically identifies offending frequencies and activates one of ten 1/10-octave adaptive notch filters. In the equalisation section there are 30 bands of 1/3-octave constant Q controls, plus adjustable filters.

Shure 699

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Sabine

Improved versions of the single and dual channel Feedback Exterminators have been introduced. The devices work by detecting resonating frequencies and applying a 1/10th-octave adaptive digital filter to them.

The FBX-Solo620 has increased headroom, switchable input/output levels and simplified connector configuration.

The FBX-2020 has 20-bit resolution and includes Clipguard which allows input signals of 27dB before clipping. Setup time is said to be reduced to less than a minute while gain before feedback has almost doubled compared to earlier models.

Sabine 700

P & G PP10 software

P&G's PP10 Audio Multiprocessor has a new software package. Following along the lines of the previous Pythagoras packages with their selected range of processes, and especially the Studio Suite aimed specifically at production applications, the Mastering Suite comprises a selection of 25 processes chosen to be particularly useful for mastering. To this end it includes a range of narrow band compressors/expanders as well as full-band soft knee, firm knee and kneeless compressors and expanders, five parametric EQs, a Warmth EQ, various types of filter, a soft clipper, micro delay, dither, link, Clone and noise shaping.

P&G 701

Summit

The MPC-100 mic pre/compressor/limiter accommodates those looking for a high quality channel strip to tape or disk by offering a high quality mic input, a high impedance input for instruments or a line input that drive the unit's first valve stage. This section is followed by a new valve compressor/limiter with fast attack times. The dynamics section has variable threshold and release controls plus attack and release presets. A switchable VU meter reads input, output and gain reduction.

Capable of "clean to effect" valve sounds, the unit has an input pad, a stepped attenuator and clip indicator with support for XLR and standard jack connectors. The instrument level input has a loading control for impedance matching and tonal adjustment.

The device is stereo linkable to all Summit Audio dynamics units.

Summit 706

More Greens

Aiming at the semi-professional market for the first time, Focusrite has launched the Green 4 two channel compressor limiter and the Green 5 Channel Strip.

The Green 4's compressors have threshold, attack, release, auto-release, ratio, make-up gain, soft and hard knee action, as well as a stereo link and a limiter with threshold, release and look-ahead. HP and LP filters are also provided.

The Channel Strip offers a mic/line preamp with equalisation and compression. The equalisation section offers HP and LP filters which can also be switched into the compressor side chain, as well as high and low shelving circuits coupled with two parametric mids.

The compression section is coupled with a gate/expander which offers threshold, fast attack, release and key input.

Focusrite 702

Orban Optimod

Orban's latest AM Optimod processor is the first to be implemented fully digitally. The 9200 is priced lower than comparable analogue units, but brings the advantages of digital operation to the familiar process that increases signal reach and impact.

Eight factory presets provide processing tailored to music formats from classical to hard rock, as well as to news/talk and sports programming. Parameter adjustment has been simplified by the introduction of a single "less-more" control, and presets may be switched to synchronise with transmission times and special events. Remote operation is available either from a standard remote control or via modem, using the Windows-based PC software included with each unit. All-digital signal chains are catered for by an optional AES/EBU IO module. While the 9200 is mono only, the companion 9100 is available for stations broadcasting C-QUAM stereo.

Orban 707

Aphex FM Processor

Aphex' Model 2020 FM Pro digitally-controlled FM audio processor is fully programmable with the ability to be remote controlled and automated and is modular. The unit offers analogue stereo inputs and outputs, Aphex's patented Frequency Discriminate Leveller, multiband compressor, bass processor, peak limiter and a digital remote control.

It uses patented technology from other Aphex products, including selectable DVG, Easyrider compression and the Peak Accelerated Compression (PAC) algorithm, in addition to six patents that are pending on new technology designed specifically for the FM Pro.

The device has three optional module add-ons: a digital IO allowing the unit to interface with digital broadcast signals; a pre-emphasis processor module with a patent pending pre-emphasis filter for "spreading" the pre-emphasis; and a Digicoder stereo generator add-on developed using Aphex's patented Digicoder type PPDM stereo generator. Other patents are currently awaiting confirmation on a "post cross-over" multiband technique designed for the multiband compressor, a bass interactive that reduces intermod distortion in the peak limiter, and a bass clipper in the bass processor for cancelling distortion.

The FM Pro comes with 16 user-programmable read-write presets, allowing manual or automated recall, and eight read-only presets designed for a variety of radio programme formats that can be used straight out of the box. The front panel gives access to simple menu driven controls; RS232 connection enables users to control and monitor parameters from anywhere on a PC.

Aphex 703

BSS Opals

BSS has addressed affordable processing with the Opal DPR422 dual compressor and de-esser and DPR522 dual noise gate. Each channel on the former has a variable ratio compressor with the company's progressive knee characteristic. Fully variable controls are provided for threshold, gain makeup, attack and release with a switchable auto setting for attack and release constants. Channels can be stereo linked. De-essing can be performed on broadband or HF only.

The dual noise gate is stereo linkable and has key filter with width control, key listen and duck. It incorporates Auto Dynamic Enhancement (ADE) to boost leading edge information plus fully variable threshold, range, attack, hold and release and a manual gate open switches.

BSS 704

Digitech

Fitted with two channels containing 12AX7A valves, the VCS-1 combines compression, de-essing, noise gating and peak limiting in a 2u package.

The circuitry uses VCAs and RMS detectors as well as a high voltage Class A valve circuit.

The compressor section has adjustable controls for threshold, ratio, attack and release, as well as switchable hand and soft knee characteristics. There is also an auto switch for programme-dependent operation.

There are variable threshold controls for the downward expander type noise gate, the de-esser and the brick-wall limiter. Each channel is also equipped with a large illuminated VU meter.

Digitech 705

tc has DBMax

The Danish company is addressing the broadcast market with its DBMax Broadcast Maximizer. Following the style of the M2000 and the Finalizer, the DBMax offers a selection of appropriate processing functions in a 1u box with control screen and multiple meters. Included are EQ, stereo adjustment, automatic gain controller, and 3-band compressor, limiter and expander. All can be used simultaneously, and setup is helped by a wide selection of factory presets and a Wizard function for providing a starting configuration in response to a few questions. TC sees the unit as being valuable on-air and in production, producing a louder and punchier programme and allowing monitoring of the end result as the audience will receive it.

tc Electronic 708

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The 606 Delay F/x Machine: Instrumental Inspiration.

When does a delay box become crucial to your sound? When it crosses boundaries to become an instrument. The 606 offers all the sound possibilities you could want, controlled by the twist of a knob. Play your creations, change them, and evolve them live.

Our inspiration for the 606 came from the classic digital delays of the seventies: Lexicon's PCM42 and Prime Time - easy to use and great sounding. But then we took it much further.

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Feed your inspiration through two separate delay sections of 24 bit processing power. This truly exceptional box hides too many more tools to explain here (we had to draw up a map to chart them all), so call us for the full details.

The 606 Delay F/x Machine: There's more to music than scrolling through menus.

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READER RESPONSE No. 038

Sony MD

For sound creation, music editing and announcement broadcasting, the SRP-MD1 MiniDisc deck uses Wide Bit Stream technology and has divide, move, combine and undo editing functions. A parallel remote and wired Sony Control-S is provided along with optical digital input with built in sampling rate converter.

Sony 709

Fostex D15

Fostex has added a new DAT recorder to its range, improving on the D10 with the addition of several new features which make it an affordable chase-lock-capable DAT recorder. The D15 now has an optional external sync card, giving full chase synchronisation, and an RS422 card adding 9-pin control. It has a new graphical user interface, multiple reference levels and cue times.

Fostex 710

Studer MO

The D424 MO 2-track recorder is now available with Software V1.1. New features include timecode chase, 16-24-bit recording, ISO Standard Disks, non-destructive editing, workstation compatibility with SADiE DAWs, a desktop controller and a CD transfer option.

Studer 715

TDK MDs

The MD Studio range of MDs has been designed for professional sound and broadcast studio applications and the company claims that its media has the added safety margin required for editing operations and repeated recording and playback and the frequent writing, playback and overwriting of U-TOC data.

TDK 716

TDK CD-Rs

TDK's CD-R Studio blanks have been designed for optimum performance during 1x recording but can also be used for double or quadruple speed recording.

The blanks have low block error rate over a wide range of write laser power which the company claims solves compatibility problems. The discs boast a light fastness of more than three times that specified in the Orange Book.

TDK 717

Tascam dual DAT recorder

Designed to meet a number of recording needs, the DA-302 Dual DAT recorder has two totally independent transports in a single 3u device. It has individual and common analogue IOs for the two decks, on phono connectors. In addition, there are separate SPDIF IOs. Output is selectable between SPDIF and AES/EBU.

Configurations include both decks recording the same programme, decks recording separate programmes and deck one recording digitally while deck two plays out to another digital device.

Normal and high-speed digital dubbing is supported, with the ability to dub from any point on the master tape (Append dubbing). Multiple unit duplication, with continuous record and playback between decks, is also possible.

The DA-302 offers playback at three sample rates, with recording at 44.1kHz and 32kHz. The display includes error rate indication, running time and input signal peak hold.

Tascam 711

360 Systems

Building on the DigiCart/II, the DigiCart/II Plus enhances storage capabilities and offers removable media options and combines a hard disk recorder, a mini audio workstation and a digital cart machine in one package.

Recordings can be stored on internal or removable Zip disks. Three sizes of hard drive are offered with a maximum of 8, 16 or 24 hours recording in AC-2 mode.

DSP editing functions include nondestructive fade in and outs and edited segments can be combined to create event sequences stored as linear stacks. 360 Systems' D-Net file transfer system is included for transferral of audio files between machines or Instant Replay machines. Transfers include audio information, cut titles and index number data.

360 Systems 714

OptoMedia

There are three models of the Falcon CD-to-CD copier: the Falcon 100, with one quad-speed CD-R drive; the Falcon 200, with two drives; and the Falcon 600 with six drives.

The process starts with a master CD-R, data from which is loaded onto the integral hard disk.

Also available is the Falcon 600 Master/Slave option. This enables any computer capable of driving a single Yamaha quad-speed CD recorder to drive six units at once. This is achieved by the use of an additional memory cache and a SCSI controller chip for each drive, so that the computer sees up to six drives as only one device.

The Kestral desktop CD-R duplicator is fitted with a magazine which holds and automatically loads discs. Kestrel can duplicate 12 CD-Rs in less than four hours.

For larger applications, the freestanding Hawk holds up to 36 CD-Rs, which are fed to a single Yamaha CD-R drive. It is possible to drive up to two Hawks from a single Falcon or to configure larger systems using the Falcon 600 Master/Slave option.

Optomedia 718

HHB CD-R

Having gone into manufacture with DAT machines and recording media, HHB has introduced a CD-R machine. Rackmounting, the CDR800 has a variety of analogue IOs, AES/EBU digital input, and optical and coaxial IOs. The device has an on-board sample rate converter with automatic index conversion from DAT and a synchronous dubbing mode for digital transfers from CD. Vibration of the disc is minimised during recording by a Stable Platter Mechanism which supports the disc from below.

HHB 712

ASC MD Report

The MD-Report! kit has been upgraded in line with the release of the new Sony MZ-R30 portable MiniDisc recorder. Mic/line inputs and outputs are now balanced, while the range of powering options has been increased to include lead-acid rechargeable battery, dry cells and AC mains supply.

The built-in loudspeaker is a more powerful design and there is dual level control for the speaker and headphone feeds.

ASC 713

Otari DAT

An improved version of the established DTR-8 DAT recorder, the DTR-8S adds the ability to monitor source without a tape in the unit.

Balanced analogue IO is +4dB, switchable -10dB. Digital IO is in AES/EBU and SPDIF. In search mode, the machine uses TOC information on the tape to locate at up to 300 times normal play speed. Three sampling rates are available from the front panel.

Also included: an hour meter to monitor usage, rackmount adapters, wireless remote and parallel remote control capabilities.

Otari 719

More from Denon

Denon Professional has introduced a new CD player and MiniDisc player/recorder both of which include large internally illuminated operation buttons, comprehensive synchronisation, SMPTE and a jog/shuttle wheel.

The DN-M1050R MiniDisc features undo edit which undoes two editing operations, front panel keyboard socket (PS2), 20 'hot starts' option, varipitch, sample rate converter option, RS232C/422A and parallel ports, and Sony protocol and word sync control options. It also has ATRAC version 4.0 and auto level record start which can be tagged on the end of an incoming line feed for syndicated programmes.

Features of the DN-C680 CD player include instant start of 0.01 seconds, index search, bargraph display of playout position, SRC option, programme play, enhanced display, varipitch, balanced/unbalanced digital and analogue outputs, serial and parallel ports, Sony protocol and word sync control options.

Denon 720

New Sony PCM

A new addition to the PCM-7000 series of DAT recorders, the PCM-7040 replaces the PCM-7030 and PCM-7050 models. It is a 4-head, timecode read/write recorder designed as a cost-effective unit for broadcasters, post-production houses and music recording studios.

The timecode capabilities of the PCM-7040 include SMPTE/EBU and film formats, with two chase synchronisation modes. A variety of search and locate functions are included. The recorder also supports Sony's Interactive Status Reporting, which enables essential functions to be monitored for operational efficiency.

In addition to memory start, RS-232C interface and edit memory, there is a Start ID level sync function, which automatically writes a start ID when the audio signal reaches a predefined level.

The Sony MDS-B5 MD cart recorder is a recent introduction which offers high speed duplication and multi-access memory hot start. It can be used with a dedicated remote or PC interface.

Sony 721

Auditronics CD Errormonitor

Auditronics, which already produces products for checking errors on 1630 and DAT tapes, has introduced the CD Errormonitor for doing the same job with CDs. It can check for all kinds of errors, both correctable and uncorrectable, including BLER, BERL, E32, NV and Mutes. It also reads details of other information for each track, such as time, length, emphasis, ISRC and copy status, and can produce reports and graphs on a PC.

Auditronics 722

Philips

The new CDD2600 CD-R drive is said to be the first to achieve 2X write and 6X read speeds. It is also plug and play compatible with Windows 95 and Windows NT platforms. Formats including CD-Audio, CD-ROM and Video-CD are supported.
Another facet of the CDD2600 is the incorporation of the ROPC feature recommended in the Orange book. This helps to compensate for variations between discs and fingerprints on the disc surface.

Philips 723

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DN-M1050R MiniDisc Recorder/Player

DN-C680 CD Player

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READER RESPONSE No. 039

Shortcut interfaces with Gentner

360 Systems and Gentner Communications have announced the interface of the former's Shortcut personal audio editor to the latter's TS612 multiline on-air telephone system. On-air hosts will now be able to activate the recording functions of Shortcut from the TS612 system. Shortcut's Instant record feature captures the incoming telephone audio and records it directly. The combination is said to be ideal in music and talk radio where talent creates finished promos from calls that come in while a song or commercial is playing. Shortcut is a 2-channel digital editor optimised for quick editing of speech, music, call-in clips, news, talk radio, promos and spots. It features cut, copy, insert and erase editing using dedicated buttons, multiple clipboards and high quality scrubbing.

360 Systems 725

KAM

Two new single CD players are aimed at DJ, hire company and installer applications. The KCD400 is intended for semi-professional use but includes pitchbend, varispeed, intro play and frame accurate search in a rackmounting unit.

Lamba 726

HHB offers Data MiniDisc

HHB's ever-growing Media Products section is now supporting the emerging digital 4-track market with the MDD140 Data MiniDisc.

Personal recorders are already appearing from Sony, Tascam and Yamaha, all using the MiniDisc format, and HHB's disc has been developed specifically for professional audio use, claiming excellence in the key areas of carrier to noise ratio and block error rates.

HHB 724

Sony MD

The MDS-B5/6P Professional MiniDisc Recorder/Player is a candidate for TV production with a half rack size, simple cart-type operation, 74 minutes of stereo audio or 148 minutes of mono on a low-cost disc. Instantaneous track access, RS-232C remote control port and the ability to use a standard IBM compatible QWERTY keyboard connection for access to track titling and instant track starts, as well as headphone monitoring output and a dial for track selection, cueing and editing, are further features.

Sony 727

CD Architect

Reading and writing Red Book audio to CD-R is now possible directly from Sound Forge 4.0. CD Architect provides extensive support for PQ editing including track times, sub-indices, ISRC codes and printed cue sheets for CD mastering.

A multifile playlist previews the CD in real-time while CD transport controls simulate audio playback of the CD. Transitions like inserting silence or crossfading between files can be added and a test burn mode monitors for underruns without actually burning the CD and eliminates expensive misfires.

Sonic Foundry 728

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Gambit Series EQ1 Parametric Digital Equalizer.

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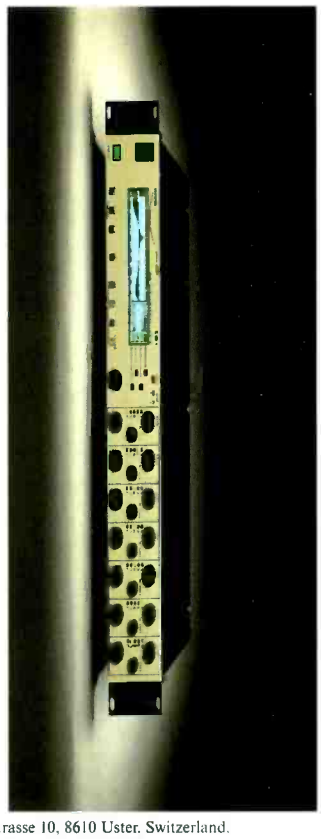
Hugh Robjohns in "Audio Media magazine".



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Weiss Engineering Ltd., Florastrasse 10, 8610 Uster, Switzerland.
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READER RESPONSE No. 040

What's new in Pro Audio 3.

will be published in November 1997 and will feature new equipment, updates and enhancements from PLASA London, IBC Amsterdam, AES New York, SATIS Paris and VISION AND AUDIO London.

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The CDR800 uses a wide range of readily available CD-R media which, in most cases, now costs less than a 60 minute DAT tape. But most important of all, the HHB CDR800 is all you need to produce your work on a truly universal digital medium that just about everybody has the facility to replay.

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