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High-End 18 Hot

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200 Sizzling New Audio & Video Components

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How Super Is Super Beta?



Very few companies selling car stereos are real *audio* companies. With 75 years of experience reproducing sound, Denon simply wishes to point out the level of their home audio technology present in the new DC-series of car audio equipment.

For example, the only audio components — home or auto — offering the level of circuit sophistication found on the new Denon Car Audio DCA-3250 Power Amplifier are Denon's own top-of-the-line receiver and separates.

Similarly, the Dynamic Range Expansion circuitry found on Denon's new Car Audio DCR-7600 AM/FM Stereo Tuner/Cassette Deck otherwise can be found only on Denon's DE-70 Dynamic Equalizer.

The differences between Denon car and Denon home audio equipment will become apparent the moment you sit behind the wheel. To build car audio for people who love good sound as much as fine cars, Denon created a very limited, ultra-high quality range of car audio components, specifically engineered to become part of the automobile. Controls fall to hand and information is displayed with the *driver* clearly in mind.

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DENON

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Finally, car audio as good as your car.





HIGH FIDELITY.

AUDIO & VIDEO

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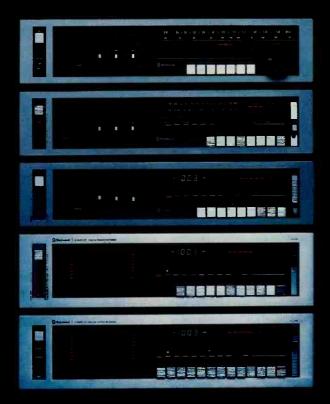
Cover Photo: Steven Dolce





"Sherwood products offer excellent performance at very reasonable prices."

Leonard Feldman, Audio Magazine



The occasion of Mr. Feldman's comment was his review of our \$2680-CP top-of-the-line receiver. His statement was sparked by the fact that, while quite affordable, the S2680-CP, like all Sherwood receivers, is designed and built with the care, precision and innovation which have become Sherwood trademarks.

A tradition of affordable quality. More than three decades ago Sherwood was founded on this philosophy: Through innovation, make quality audio equipment more affordable. That philosophy has been nurtured throughout Sherwood's history and is the foundation of our newest line of receivers

We never cut corners on sound. All five Sherwood receivers deliver true high-fidelity performance. Even our budget-priced \$2610-CP sounds better than many separate components. And the entire group is laced with features that can make significant differences in your listening enjoyment. Ultra-low-bass EQ, multi-deck dubbing, auto-scan digital tuning and discrete phono-preanip circuitry are standard on several

Sherwood models, yet missing from many other brands, regardless of price.

Certified Performance. Sherwood is the only manufacturer to test and certify the performance of each individual receiver. On the outside of every carton you will find a certificate showing the measurement details of the power amp, phono preamp and FM tuner sections of each receiver. These are not just the rated spees; these are the actual measured performance data of the individual unit, so you know exactly what you're buying.

Find out what the experts say. Get the whole story on why Sherwood receivers-in Mr. Feldman's words---"...offer excellent performance at very reasonable prices!

To get your own copy of his review of the \$2680-CP and to find out just how much quality and innovation you can afford, visif your nearest Sherwood audio specialist today. To find him, call (800) 841-1412 during west coast business hours.





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EDITOR'S



A

William Tynan

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A new appreciation for high-end audio

by

Early each January, the Nevada desert springs to life with what has become one of the largest trade shows in the world: the Consumer Electronics Show. Almost 100,000 manufacturers, distributors, exhibitors, dealers, press representatives, and the like were there this year. A decade ago, the show was shoehorned into a single hotel, Chicago's Hilton. Now, in a substantially more friendly winter clime, it sprawls throughout the Las Vegas Convention Center, the adjacent Las Vegas Hilton, two other major hotels, several parking lots, and a host of individual hotel suites scattered throughout the city.

CES is a trade-only exposition whose prime purpose is to showcase new products to those who will distribute and sell them. A not-so-secondary mission is to gain exposure in trade and consumer media so that appetites on both sides of the cash register will be whetted when the products reach dealers' shelves. Our task at HIGH FIDELITY is to sort out the facts from the fluff and to provide a meaningful perspective on the significance of the new audio and video components.

Literally thousands of models are introduced at CES, and space limits our coverage to only a portion of these. Much of what we see is in prototype; some items will never reach production, often simply because of a lack of dealer enthusiasm. Though we shy away from reporting on prototypes, we do spend a good deal of time at CES talking with the small, independent "high-end" manufacturers, which over the years have proved a steady source of novel approaches to improving music reproduction. True, many of the ideas never emerge as products, and many out-of-theordinary developments wilt for lack of sustained interest. But others are surviving; some have even been picked up by other manufacturers.

For example, Nelson Pass's Stasis amplifier design, which has been the heart of the Threshold line, is seen this year also in Nakamichi's new electronics. And Larry Schotz's tuner noise-reduction circuit, which first appeared in NAD's line, is now found in tuners from half a dozen companies. So while we may arch our skeptic's eyebrow when we first see a \$1,400 tube pre-preamplifier or a special speaker cable that sells for \$200 per meter, time has taught us that only it has the answers.

One trend is clear from this winter's CES: Manufacturers are paying increasing attention to the market staked out by high-end companies. The emphasis is on highquality, high-performance components, which are being hurried to market in new prestige lines. As our cover declares, high-end is hot. Complete coverage of new product introductions begins on page 32, with a special video report starting on page 14. The equipment included is what we judge will be available at about the time you read this. Prices are included, but only as a guide, since they often are adjusted up or down between CES and actual sale and, of course, may be discounted.

4



Introducing a slight improvement on perfection. The new Technics Compact Disc Players.

Technics compact disc players. And the compact disc. Together they've given you what no conventional audio system can: the perfection of musical reality. Instead of the conventional stylus, Technics compact disc players use lasers and computers. So there's none of the noise. None of the distortion. And none of the wear and tear that affects ordinary records.

With Technics, what you hear is not just a reproduction of a performance, but a re-creation of it: perfection.

But occasionally even the musical perfection of a compact disc can be marred by fingerprints, dust or scratches. So the new Technics SL-PZ compact disc player has improvements like an advanced error correction system. This system has been designed to



PAGE Compensate for those imperfections. To help ensure that the sound you hear is bigital audio still completely flawless.

You also get sophisticated, corvenient controls for accurate, rapid response to your commands: 15-step Random Access Programming so you can play any selection. In any order. Auto Music Scan lets you sample the first few seconds of each song. Automatically. Full information fluorescent displays et you keep track of tracks, playing time and other player functions.

And all of this can be controlled from across the room with Technics wireless, infrared remote control.

So enjoy an improvement on perfection. With the full range of Technics compact disc players. Including the SL-P2, SL-P3 and very affordable SL-P1

The digital revolution continues at Technics. Perfectly.



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CD PACKAGING

I would be interested in your opinion of the record manufacturers' decision to encode only one side of the new Compact Discs. I assume this is purely a marketing decision designed to sell twice as many of the premium-priced discs and that there are no technical barriers.

G. R. Paterson Evanston, Ill.

Actually, the problem is technical. At present, the only way to make a double-sided CD would be to make two separate discs and glue them together, back to back. If anything, this might raise manufacturing costs, and it certainly would increase the reject rate. Besides, where would the label go?—Ed.

As you know, some Compact Discs are made from digital master tapes, others from analog tapes. Unfortunately, record manufacturers don't seem to label their packages accordingly. When I buy a CD, I would really like to know which variety I'm getting. A way around the problem would be for record companies to label discs made from analog recordings Type A and those from digital tapes Type D. This would enhance sales by alleviating consumer confusion and would give people a better understanding of what they are buying. Thus, everyone would benefit.

Douglas J. DeGroote

Altoona, Pa.

Such a system already has been adopted, but compliance is voluntary and thus far rather slow in coming. It is based on a three-letter code. The first indicates whether the original recording was analog or digital; the second, whether the mixdown was done on an analog or a digital recorder; and the third, whether the disc itself is analog or digital. Thus, a digitally recorded and mixed LP would be labeled DDA, whereas a CD made from an analog mix of an analog recording would be labeled AAD. We have adopted your much less cumbersome system for the reviews in our classical music section. Because almost all pop recordings are still analog and the information is very hard to obtain, we are not yet coding them in our reviews.—Ed.

"MERE" REVIEWS: MOOR OR LESS?

To paraphrase a line from Paul Moor's review of Russell Sherman [February]: Who is Paul Moor and what does he want? It seems to me that a magazine as important as HIGH FIDELITY might have the resources to find out who Russell Sherman is and tell us a little about him. I don't know who he is either, but I've certainly heard the name before. Moor complains about Sherman's program notes on the album cover. So, *don't* hire Sherman to write reviews for HIGH FIDELI-TY. But what about the performances? All I could pull out of Moor's comments was, "Well, other versions are probably better."

About the seemingly ridiculous precision Bartók writes in his scores, read what Bartók himself wrote as a footnote to the performers: "Timings, noted from an actual

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on top of another.

Unmatched FM Stereo/AM Stereo reception and video control makes them fantastic. X-Balanced circuitry makes them phenomenal. Sansui's 130 watt S-X1130 and 100 watt S-X1100 Quartz PLL Audio/Video receivers are so far advanced, they even have a special decoder that lets you receive broadcasts of all AM stereo systems. What's more, their unique X-Balanced circuitry cancels out external distortion and decisively eliminates IHM, for the purest all-around listening pleasure.

But the advantages don't stop there. Both receivers are complete Audio/Video control centers that are radically different—and significantly more versatile—than any others on the market. The S-X1130 delivers all the highly advanced audio and video performance of the S-X1100, with the added bonus of sharpness and fader controls for enhanced video art functions. And both units offer additional audio dexterity with "multidimension" for expanded stereo or simulated stereo, plus sound mixing capabilities. For more brilliant, innovative ideas, check out our full line of superior receivers. You'll know why we're first, the second you hear us. There's more worth hearing and sociar from Sansui. Write: Consumer Service

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Terry Marlell Faye & Terry Martell Salt Lake City, Utah

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And, exclusively on Compact Disc, a superb 70-minute compilation of eleven magnificent arias:

performance, are given for sections of movements and, at the end of each movement, for the whole thereof. It is not suggested that the durations should be exactly the same at each performance; both these and the metronomic indications are suggested only as a guide for the executants." I believe the paragraph Moor devoted to the issue of Bartók's timing indications [in his review of the Concerto for Orchestra, February] greatly distorted the composer's intentions.

Finally, I know of no composer alive who is completely unavare of the value of the performing artists who bring their music to life. To throw anyone but the composer himself into the bin of "mere interpreters" is not only an insult to the performers but to the composer as well. Perhaps Moor, the mere reviewer [of Zubin Mehta's recording of Brahms's Symphony No. 3, February], feels that Brahms would be happier with Moor's conducting the exact tempos from the score than with Mehta's attempt to use his own creative powers to make a recording that differs from the rest. I can appreciate criticism of "distressing violations" of tempo, but let's keep generalized insults to "mere interpreters" within the mind of the reviewer, okay? Kelly J. Richardson

Logan, Utah

I read with interest a review by Paul Moor of a Chopin recording by Russell Sherman on Compact Disc. In the review, Mr. Moor refers to the notes accompanying the recording as silly and pretentious. (Does Mr. Moor review album notes or records?) The notes may well be as Mr. Moor describes them. I haven't read them. But a few more adjectives, including "pompous," "smug," and "dull," should be combined with the others to describe many of the classical CD reviews by Mr. Moor and his associates in your magazine.

Instead of allowing these precious gasbags to go on for paragraphs attempting to impress readers with how much they think they know, you would be doing everyone a greater service by providing straight-to-thepoint reviews of many, many more of the CDs that come on the market each month. By that I mean going a step beyond what one can find in the SCHWANN catalog: Briefly rate each recording for musicality, musicianship, and technical quality-and tell readers (Continued on page 13)

ENTERTIE NEW Stone Age

Every great once in a while a new material is discovered of such significance that it changes the way we live. In the same sense that the Iron Age displaced the original Stone Age, new substances recently have been developed of such importance that they already are being described as "21st Century" materials. The materials, called Fine Ceramics, are not to be confused with Ming vases or rare pottery. Rather, they are a bold new set of materials possessing far greater rigidity, durability, thermal stability, and anti-resonance properties than other materials known to man.

Science has barely begun to reap the potential offered by Fine Ceramics. Diesel engines using high-temperature Fine Ceramics for critical components have yielded 30% greater efficiency. The biological compatibility of ceramics within the body have led to their acceptance by the medical community for orthopedic bone replacements and major dental work. The technology of Fine Ceramics has produced gem-quality sapphires, rubies and emeralds which are identical to natural stones in every way, except that they have no flaws.

It should come as no surprise, then, that Fine Ceramics has been predicted to become the major growth industry of the high technology future. But you may be surprised to learn which Company presently is the world leader in Fine Ceramics. That same Company was selected by a leading Japanese business journal as being the Number One Company in all of Japan in terms of technology, growth potential and profitability. Number One. Over every car, TV or other Japanese manufacturer there is. That Company is Kyocera.

Kyocera, a contraction of Kyoto Ceramics, is a Corporation whose combined digital, electronics and materials technology has produced many industry best-sellers in the fields of computers and communications (which they have built for companies you know well).

Kyocera's latest challenge is the application of its exclusive expertise to the field of high fidelity sound reproduction. Embodied in a totally innovative, strikingly different line of no-compromise components proudly bearing the Company's name, Kyocera will show the high fidelity community just how much a brand new way of thinking can accomplish.

Welcome to The New Stone Age.

KYOCERA APPLIES I TECHNOLOGY TO IMPR PLAYER PERFORMANC

Begin with the most advanced digital technology.

To demonstrate to the listening world the importance of Fine Ceramics technology, Kyocera first built a Compact Disc player incorporating <u>all</u> of the most advanced CD technology. For example, Kyocera's Compact Disc players feature separate, independent D/A converters for both the right and left channels to preserve phase coherency and for superior channel separation. They also use a 16-bit microprocessor with quadruple over-sampling and digital filters to optimize phase and group delay characteristics. Then, to prevent digital noise from interfering with the musical signal, Kyocera's Compact Disc players employ independent power circuits for both the digital and analog sections.

Incorporate the most advanced audio technology.

The audio sections of Kyocera's Compact Disc players employ DC amplifier systems in which all parts are directly coupled (capacitorless) — from the D/A converter at one end to the output terminals at the other.

OPEN/CLOSE

Then, LC (Linear-Crystal) OFC (Oxygen Free Copper) material is used (DA-910) for signal circuit wiring with the smoothest electron flow. Naturally, only the most carefully selected, hi-spec parts are used in Kyocera CD players, and, wherevef possible, circuit design has been reduced to a bare minimum. For example, a specially designed shorting type muting relay eliminates "power on" noise, yet remains outside the signal path. And, conventional volume controls have been eliminated in favor of a switchable output to further eliminate possible noise.

Then add Kyocera's Fine Ceramics technology.

In the DA-910, Kyocera's Fine Ceramics engineering has been applied to eliminate a principle impediment to accurate compact disc performance – resonance. With digital tracks spaced only 1.6 microns apart, even the j ti

W GENERATION VE COMPACT DISC

slightest hint of vibration can create tracking errors, which can significantly degrade sound quality. Thus, Kyocera's Ceramic Compound Resin (CCR) is specified for the chassis base of the DA-910—because of its fast vibration damping characteristics and extremely high rigidity.

The CCR base isolates critical circuitry from harmful external vibrations (mechanical and acoustic feedback) as well as from internal excitations created by the power transformer. Anti-

resonance design has become well accepted by the very finest audio manufacturers for sound reasons. Audio circuitry handling very low level signals can actually



Ceramic Compound Resin 444 (CCR) Base Chassis



Fine Ceramic Linear (FCL) Module

module to further isolate it from vibration, to avoid thermal drift and to protect it from pulsive electronic noise created by digital circuitry.

Kyocera's final step in eliminating resonance from Compact Disc players consists of over-sized, adjustable feet to provide further isolation and "he firmest support for the players themselves. To minimize vibration, the DA-910 employs a diecast zinc pick-up mechanism.

Kyocera advances sound and user performance.

By combining the latest audio and the most advanced digital technologies with proprietary Fine Ceramics expertise, Kyocera was able to produce Compact Disc players widely regarded as the finestsounding available — with the clarity, smoothness, inner detail and imaging of the finest audiophile components. Kyocera's vast digital experience also has enabled

Kyocera's vast digital experience also has enabled the company to pay equal attention to sound quality and operational ease. Thus, programming and play functions are extensive, yet perfectly simple.



vibration or shock into electrical signals of their own. The elimination of this phenomena, known as the "Microphonic Effect," is the principle reason for all heavy duty, anti-resonance audio component construction.

The critically important analog circuitry handling the D/A converted signals is directly mounted on the CCR chassis. As an ultimate measure in the DA-910 this circuitry is mounted inside a Fine Ceramic Linear (FCL)

DA-810/910 Compact Disc Players.

Kyocera's DA-810 was not designed as a step-down model In any way; rather the DA-910 is a step-up for those seeking the ultimate in anti-resonance construction and the convenience of remote control operation.

the convenience of remote control operation. The DA-810 features all of Kyocera's advanced digital circuitry, including dual D/A converters with oversampling and dig tal filtration plus Kyocera's "purist" audio design, including direct coupling, a DC-servo amplifier, "twin mono" construction, separate digital and analog sections, carefully selected high-spec parts and the simplest possible signal path circuit design. Kyocera's anti-resonance construction for the DA-810

Kyocera's anti-resonance construction for the DA-810 includes a special alloy transport mechanism, heat sink



KYOCERA DA-910 Specifications

Frequency response: Signal-to-noise ratio: Dynamic lange: Phase response: Harmonic distortion: Wow and flutter:

Channel səparation: Output level/Impedance: AC power requirement: Power consumption: Dimensions:

Weight:

 $5Hz - 20kHz (\pm 0.5dB)$ More than 95dB (I kHz) More than 95dB (I kHz) 20kHz 80 degree Less than 0.005% (I kHz, 0dB) Unmeasurable (dependent on precision of crystal oscillator) More than 90dB (I kHz) 5V, 2V, 0.77V (3 points)/I k ohms AC 120V/60Hz 33W 430 (W) × 140 (H) × 330 (D)mm ($7^{"} \times 5$ -1/2" × 13") 9.5 kg (20 lbs. 15 oz.) and top cover, plus an anti-resonance coating applied to all delicate analog circuitry. The DA-810 was designed bearing in mind that

The DA-810 was designed bearing in mind that anyone buying <u>any</u> Kyocera product is unwilling to compromise.

Finer than the finest.

Those who have followed the development of the Compact Disc will remember that Kyocera's DA-01 was one of the most highly acclaimed of all the first generation Compact Disc players. Rather than simply repackage this initial success more cheaply, Kyocera added the benefits of Fine Ceramics technology to produce what realistically can be described as the finest Compact Disc players available today.



KYOCERA DA-810 Specifications

Frequency response: Signal-to-noise ratio: Dynamic range: Phase response: Harmonic distortion: Wow and flutter:

Channel separation: Output level/Impedance: AC power requirement: Power consumption: Dimensions:

Weight:

Mications $5Hz - 20kHz (\pm 0.5dB)$ More than 90dB [I kHz) More than 90dB [I kHz) 20kHz 80 degree Less than 0.005% (I kHz, 0dB) Unmeasurable (cependent on precision of crystal oscillator) More than 90dB [I kHz) 4V, 2V, 0.77V (3 points)/I k ohms AC 120V/60Hz 33W 460 (W) × 145 (H) × 311 (D)mm (18-1/8" × 4-1/2" × 12-5/8") 8.5 kg (18 lbs. 12 oz.)





INTRODUCING THE HOME DECK FOR THE ROAD. IT EVEN GOES INTO REVERSE AUTOMATICALLY.

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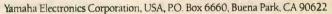


Press this button to automatically compensate for the acoustic variance in most cars.

Happily, there's a quick, simple, effective remedy. The car EQ button on our new K-600 cassette deck. Push it in and record. The typical frequency response characteristics of your car are automatically compensated for. So the bass and midrange sound full and natural. Without boominess. And the highs come through loud and clear.

It's also uniquely easy to make recordings on the K-600. Use its Auto Fade Out and Auto Reverse functions, and you won't have to worry about ending Side One in the middle of a song. You'll get smooth, natural fade-outs (and fade-ins) in both directions. Automatically.

So test drive the K-600 at your Yamaha dealer. It's one home cassette deck that can add to your driving pleasure.



(Continued from page 8)

if it is actually digital or something the record company has dragged out of the archives.

In short, I would like to see less prattle and more factual information on classical CDs being made available to the buyer. I hope you'll soon start furnishing it.

James Moffat

Minneapolis, Minn.

Paul Moor replies: At my estate, I take the long view, reaffirmed almost infinitely throughout artistic history, that the gift of creation looms larger and more substantial-by far-than the gift of mere interpretation. Marcel Dupré once opined that Pablo Casals justified the application of the term "genius" to a mere interpreter. I agree; I would even apply it to half a handful of other almost supernaturally gifted interpreters. Even so, the names of Casals and Furtwängler and Toscanini and many another will, as time inexorably passes, dissolve almost into oblivion, while the printed scores that provided their vehicles will remain as vibrant, vital, and viable as ever.

The Three B's, for instance, survive, immortal; the blanched, anonymous bones of even their greatest earlier interpreters litter the musicological strand. On that basis, I have as little patience with the presumptuous, self-serving tinkerings of the narcissistic musical interpreter as I do with those of the narcissistic actor. When a creative genius takes the pains to set down his wishes as precisely as Bartók did, I contend that the conscientious, genuinely musical interpreter, already in debt to him for the mere existence of the score, further owes him the moral obligation to reproduce it as faithfully as possible in accord with its creator's conception. I write this, incidentally, as a mere occasional interpreter: I have never even attempted to compose. And as for that word "mere," a quick glance at Webster's Unabridged or the Oxford English Dictionary will enlighten Kelly Richardson as to its true, precise, in-noway-insulting meaning.

I review, altogether, what the record buyer can expect to take away in his hand in exchange for paying out his moneyand, in some instances, I feel constrained to help him save that money. If the record company shirks its duty to tell us about its artists, I shall continue to abuse it until it mends its ways.

James Moffat's letter refers four times to CD reviews, whereas I, to date, have written exclusively about LPs. Can he perhaps have confused me with my pushy, selfish editor, Theodore W. Libbey, Jr.? [To correct a few of Mr. Moffat's other misconceptions: We always indicate whether a CD is an analog or digital original, we insist on going more than a step beyond what can be learned from the SCHWANN catalog, and we believe that readers are entitled to more than "factual information" when it comes to recordings under review. Specifically, we believe they are entitled to informed opinions.—Ed.]

RUSSIAN EXCHANGE

Anyone wishing to exchange jazz or popular records with one of our readers in Leningrad should contact our MUSICAL AMERI-CA editor, Shirley Fleming, for further information.

Edited

11

The CES Video Picture

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The progress being made in home video technology is startling. Those of us who became accustomed in the '70s to the notion of television as a mature industry, where changes came at a leisurely pace, must now confront a field virtually exploding with new ideas and techniques. Happily, there's one place every year where you can spot the latest video trends and developments: the Consumer Electronics Show. And though our special report on new audio and audio-video gear introduced at the Winter CES gets the lion's share of attention in this issue (see pages 32-51), video wins pride of place with Robert Angus's overview of the season's newest video wunderkinds.-Ed

CAMCORDERS

Trying to make sense of the exploding camcorder market is difficult at best. A year ago, the market was dominated by Sony's Betamovie system for the simple reason that it had no competition. Now, however, there are nearly two dozen models in four distinct (and incompatible) formats to choose from. (See "Ultimate Portables," February.) And despite the infighting that has taken place in the past several months between the makers of VHS-C. Beta, and 8mm units, it's unlikely that any one format will disappear. Indeed, manufacturers seem so sure that portable video will capture the public's imagination that they are also renewing

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their efforts in portable video separates (ultracompact cameras and lightweight recorders).

The newest addition to the camcorder scene is Omnimovie, a 7 1/4-pound unit designed to accommodate a standard VHS cassette for up to 160 minutes of recording. Developed by Panasonic, the system's secret weapon could be a battery that the company says can provide power for more than 75 minutes of operation-more than twice the time of today's batteries. Quasar, General Electric, and Magnavox will join Panasonic in offering Omnimovie models, which are expected to cost about \$1.600.

The Beta group's answer is a 51/2-pound ultracompact Betamovie camcorder that uses a CCD semiconductor pickup in place of a tube. Aside from the savings in weight this affords, Sony says the CCD results in a more rugged camera with a brighter, more detailed picture. The unit is expected to appear on dealers' shelves this summer. Price is not yet available.

A CCD pickup also figures prominently in Polaroid's 8mm camcorder (\$1,650). And if the idea of 8mm cassettes strikes vour fancy, this year you'll be able to assemble a whole system built around 8mm separates. Canon is taking a gamble with an 8mm system consisting of a \$1,000 camera, a \$900 recorder, and a \$300 tuner/timer. Sanyo is also entering these unknown waters with an 8mm portable deck and camera (about \$2,000 for the complete system). To keep up with the anticipated

Peter

Dobbin

demand for blank 8mm cassettes, which were available previously only from the hardware manufacturers, TDK becomes the first major tape maker to offer its own 8mm metal-particle cassettes in 30and 90-minute lengths. And the first prerecorded 8mm cassettes have appeared: two X-rated titles from Cal-Vista.

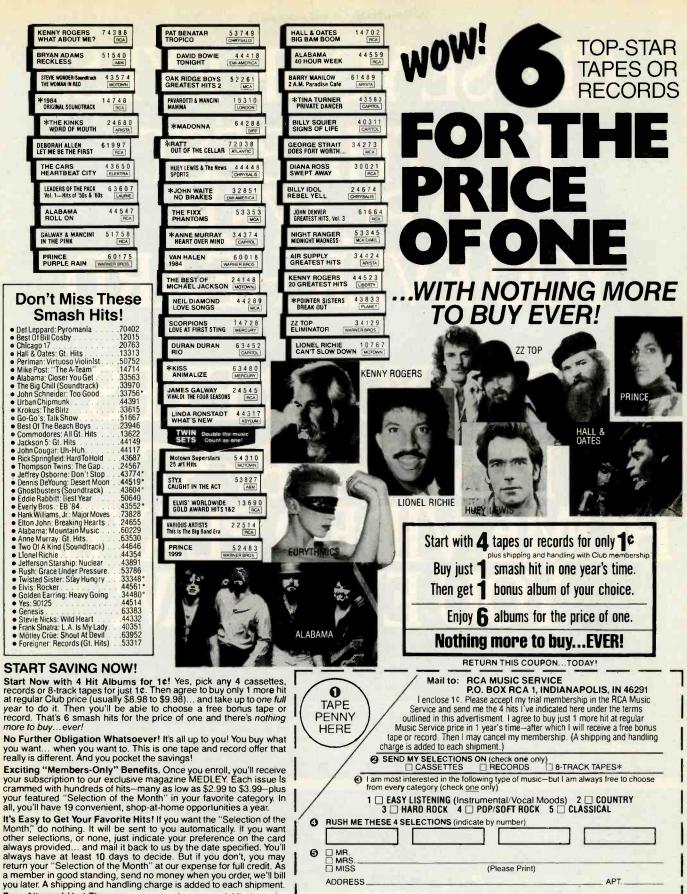
Proving that the VHS-C format is still very much alive, Zenith bows in this spring with the VM-6000 camcorder. Even the Koreans seem interested in the format. Samsung showed a VHS-C prototype, and indications are good that it or some other Korean or Taiwanese manufacturer will have a model by the end of the year, probably for less than \$1,500.

(Continued on page 18)

Anasonic's VHS Manimovie

PORTABLES PROLIFERATE

With the introduction at the CES of two new portable video setups-Panasonic's Omnimovie camcorder and Canon's 8mm separates system-the choice in portable formats grows still larger. (With one-piece 8mm camcorders, VHS-C camcorders, separate VHS-C recorders, Betamovie camcorders, and standard Beta and VHS portable recorders, eight different choices are now available.) At 7 1/4 pounds, Omnimovie is the heaviest of the camcorders, but it has the distinction of using standard VHS cassettes for as much as 160 minutes of recording with a T-160 tape. Canon's 8mm separates consist of an ultraminiature deck, an autofocus camera, and a tuner/timer. Maximum recording time with 8mm systems is 90 minutes.



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conventional laser videodiscs with analog sound. And it'll play the newgeneration laser videodiscs with digital sound. It is clearly the most versatile audio/video system yet devised.

CLD-900 will

tally. It will play

Given all this versatility, it's easy to assume we've made some kind of compromise. How could one player possibly be the best at all these things? Better, in fact, than if it did one thing alone?

Believe it or not, the new Pioneer CLD-900 LaserDisc[™] brand videodisc player is better at everything. Without any question. And for a very simple reason.

The precision and sensitivity required to make a great LaserDisc player is far

greater than what's required to make a CD player. (The laser beam itself must focus

20-25% more accurately on an LV disc than on a CD disc.)

Because of this precision, the CD portion of our new combo player offers superb specs: a frequency response of 5 Hz-20 KHz, an S/N ratio and dynamic range of 96 dB, and a separation of 94 dB.

And it comes as no surprise that, by adding digital sound to the laser picture, LV sound is, as Video Magazine reports, "the best available in a home video-plus audio system."

As everyone knows, a CD disc is physically very different from an LV disc. So how do you create a player that reads both so well? That wasn't easy.

First, we gave our new CLD-900 two distinct motors: one for CD, another higher-torque motor for LV. (We could have made a player with one motor and a lot of gears, but that would have been a compromise.) And we mounted these motors in an aluminum frame



The 12" Standard Videodisc



Music Videodisc.



The Compact Audiodisc

6 separate servos. (CD players have at best 3 or 4.) We even added a separate servo to compensate for warped discs, something that no CD player has ever had.

Since stability is of such consequence in a laser system, we gave our player the largest, most stable clamping system yet devised. Substantially larger than the clamping system on any CD.

And to ensure that none of this quality is lost, we built our player with unprecedented quality. As an example, we employ oxygen-free copper cables in the circuitry itself. As well as gold-plated connectors.

For all its technical advances, the CLD-900 is childishly simple to use. One remote control controls both CD and LV

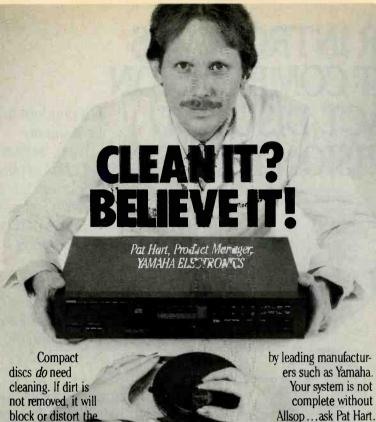
functions. And sensors in the system automatically set the player for either LV or CD discs. All you do is put the disc on the tray, slide it in, and press "Play." As Video Magazine put it, "It could become simpler only by accepting voice commands..."

The Pioneer CLD-900 costs more than CD players. It costs more than conventional laservideodisc players. But since it's clearly the best at everything, shouldn't it?

Video for those who really care about audio.

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MULTICHANNEL SOUND

One of the things that never ceases to amaze me about the consumer electronics industry is the speed with which manufacturers respond to new developments. It was barely a year ago, for instance, that the FCC approved the BTSC (Zenith/DBX) system for broadcasting multichannel TV sound, and already virtually every television manufacturer has premium sets equipped with a multichannel TV sound (MTS) decoder. At the moment, there are only 11 stations actually broadcasting an MTS signal, but that number is expected to exceed 100 by the end of the year.

If you already own a perfectly good television receiver, you may be able to adapt it to receive MTS broadcasts with one of the several add-on decoders marketed by Panasonic, Sanyo, Sony, Zenith, and Hitachi, to name but a few. Such units cost from \$100 to \$150 and are intended to be jacked into the MPX output on the back of modern receivers; adapting an older TV set to receive stereo broadcasts, if possible, involves the assistance of a technician.

SUPER BETA

What Beta Hi-Fi did for VCR sound quality, Super Beta is supposed to do for picture quality. The concept is simple: Take a standard video signal and during recording shift the luminance carrier up by 800 kHz to increase the video bandwidth. This yields crisper pictures with sharper detail.

At the moment, Super Beta is in its infancy-more of an idea than a product. It was demonstrated at CES by Sony, Sanyo, NEC, and Toshiba-members of the Beta Group (which also includes Aiwa, Pioneer, and Teknika). Using prototype VCRs and high-resolution video monitors, Super Beta recordings were compared side by side with regular Beta versions. In most demonstrations, observers rated the Super Beta recordings clearly superior.

Super Beta is said to be totally compatible with conventional Beta, i.e., recordings made in either format will reproduce on the other without problems, but this direct compatibility was not part of the demonstrations.

The Super Beta news had hardly cooled before Panasonic announced that a "Super VHS" version could appear as early as this summer. One Panasonic official claimed that Sony had leased-not originated-the "Su-

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Supreme Extremes with TDK



The classic problem with recording classical music is faithfully reproducing an enormous spectrum of sounds. Some audio cassettes give you improved highs. Some, improved lows. Others, improved in-betweens.

Only one cassette can offer you the best of everything. TDK SA-X. It's one of our Pro Reference Series of audio cassettes designed to produce unmatched performance for every style of music.

Surpassing all other conventional high bias cassettes in its class, SA-X handles strong signals without distortion or saturation, thanks to its superwide dynamic range and higher MOL. ©1984 TDK Electronics Corp. With an exclusive dual coating of Super Avilyn particles, SA-X orchestrates optimum performance at all frequency levels. From rich, solid bass, to mellow cello, to the peaks of a piccolo, it reproduces the crispest, clearest, purest audio pleasure.

And to assure a standing ovation play after play, our specially-engineered Laboratory Standard mechanism provides a smoother tape transport and better tape-to-head contact for total reliability and troublefree performance.

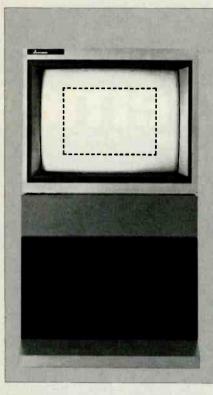
You'll also get incredible performance from our other three TDK Pro Reference cassettes: MA-R metal, HX-S metal particle high-bias, and AD-X Avilyn-based normal bias.

Each is designed to deliver pure listening pleasure and long-time reliability...backed by our Lifetime Warranty.

Maximize the performance of your musical library. Pick up TDK Pro Reference cassettes today.

We go to extremes to improve your listening pleasure.





THE TITANIC OF TUBES

Our expectation of the practical limit of Dicture-tube size took a dramatic unturn at the CES with the introduction by Mitsubishi of a monitor/receiver equipped with a 35-inch (diagonal) screen. In comparison with a 25-inch tube (inset here as a dotted outline), the sheer size of the new CRT, which weighs more than 100 pounds all by itself, makes a dramatic Impression, We also were impressed with the ploture quality. Again in comparison to a 25incher, the megatube's image seemed just as sharp with little if any of the additional graininess we expected. But novelty has its price. Mitsubishi plans to charge about \$3,000 for the set. which also is equipped with a broadcast-stereo decoder and extensive input/output connections.

per" technology, implying that his company had done the same.

As for production versions of Super Beta VCRs, the first are due out sometime late this summer and will be top-of-the-line models. No one seemed certain, however, whether these first decks would also incorporate Beta Hi-Fi.

DIGITAL TV, HDTV, AND HIGH RESOLUTION

A number of manufacturers are offering digital TV monitor/receivers—Toshiba, Sony, Mitsubishi, and Panasonic—but picture quality isn't the focus of the technology. Rather, it is being used for special effects, such as picture-within-a-picture (whereby you can view one channel while monitoring a second video source in a small separate area on the same screen).

Lines of resolution could be this year's version of the audio amplifier wattage race of a decade ago. At this point, however, improvements in resolution are mostly the re-

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The Shure V15 Type ☑-MR—no other component can bring so much sound out of your system for so little money. A combination of the revolutionary Micro-Ridge Tip and Shure's extraordinary Beryllium Stylus Shank, this cartridge has redefined the upper limits of high-frequency trackability.



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From time to time, we receive letters from readers inquiring about the availability of a VCR capable of playing tapes recorded in the PAL or SECAM format, as well as the U.S.-standard NTSC format. The machines that we know capable of replaying all three video formats do not, however, convert the PAL or SECAM signals to NTSC at their outputs, which means that you must use a modified video monitor for viewing. Not so the new Image Translator (\$795) from Instant Replay, which creates a standard NTSC output when playing PAL or SECAM tapes. The machine is a modified General Electric VHS Hi-Fi deck, complete with multi-event programmability, a cable-ready tuner, and a video sharpness control. Unfortunately, the deck cannot reproduce SECAM recordings in color.

sult of advanced circuitry and the use of comb filters. Typical TV receivers are rated at about 240 to 260 lines of horizontal resolution (see "Basically Speaking," January). The new high-resolution monitors from companies such as Proton, NAD, Sanyo, Sony, RCA, and Sylvania are rated at more than 300 lines for off-the-air programming.

Strictly speaking, high-definition TV (HDTV) refers to a system with approximately double the standard number of scanning lines and with a more rectangular picture (a wider aspect ratio). The closest to HDTV that I saw was Sony's system, where digital technology was used to interpolate a second set of horizontal scanning lines between the original set, thus increasing apparent sharpness.

SIGNAL DISTRIBUTION

One consequence of the proliferation of home video componentry is the need for signal distribution: If you have a satellite receiver, VCR, videodisc player, and so forth set up in one room but want to watch a TV set in another, what do you do? At least three companies are offering reasonably priced signal distribution systems that could solve the problem.

One approach, the Rabbit, is manufactured by Envision Systems. It consists of a tiny transmitter that attaches to the audio and video outputs of any video component and sends a combined signal through the electrical wiring of your house to a receiver located at the remote TV set. Cost for a basic transmitter/receiver set is \$99; additional receivers are \$30.

The Videocaster from Quantec International is a transmit-only device that connects to the RF output of a source such as a VCR or satellite receiver and transmits the signal over the air on channel 3 or 4 to any TV receiver within a 40-foot radius.

The most sophisticated of these systems is Videolink's MRTV. It feeds signals to several sets, and its infrared remote control enables you to choose among sources from a remote location. Up to four video sources and three TV receivers can be hooked into the system.

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HIGH FIDELITY TEST REPORTS P.O. BOX 11120, CHURCH STREET STATION NEW YORK, N.Y. 10249 This was my first look at this new product category, and while my interest certainly was piqued, I came away with several questions. In the next few months, I hope to report on picture quality, possible signal radiation problems (with a neighbor's TV set, for example), and what position the FCC will take on this category as a whole.

SATELLITE ANTENNAS

Receiving equipment for satellite TV signals is losing some of its basement workshop look and moving more into the mainstream of home entertainment gear in terms of features, cosmetics, and even price. Some standard features that were once high-priced options include remote control antenna-orientation, stereo receivers, and remote control source-selection. Other noteworthy developments include a basic system for \$1,345 (from Channel Master), a 4 1/2-foot antenna dish with performance comparable to older 8-foot-diameter versions, and the disappearance of the hand-crank rotator on the rear of the dish.

Certainly one of the most exciting developments is the new generation of stereo receivers. For example, the Mark 2 from Luxor has Dolby B, a 2:1 audio expander, a built-in stereo processor, and wireless remote control. And Panasonic became the first major Japanese company to dip its toe in the water, offering a single model.

CD GRAPHICS

This new product category may well turn out to be a case of technology in search of a market. Many of the latest generation of Compact Disc players include on their rear panels a subcode port. Interface devices, which connect between these ports and a video monitor or a TV set, will be available by the end of the year from at least three manufacturers: Sony, Philips, and Technics. At about the same time, three of the world's largest record companies-CBS/Sony in Japan, Polygram in Europe, and Warner-Elektra-Atlantic in the U.S. -could market discs containing both music and graphics. Graphic content might be line-by-line translations of opera librettos in conjunction with the music; recording information, such as typically is found on record jackets and liner notes; and still photos of the performer (s). The best. guess on the price of an adapter is about \$150.



With all the hoopla in the business press about the drastic price cutting that would ensue when Korean-made VCRs finally landed on these shores, the unveiling of the Korean decks at the CES left many people wondering what all the fuss was really about. Sure, they're cheaper than "comparable" Japanese-made VCRs, but the jury is still out on the issue of quality. How cheap are they? Samsung's top-of-the-line VT-23OT (shown here), a four-head design with 8-event/14-day programmability and wireless remote control, has a suggested retail price of \$600. The least expensive model in the line goes for \$400. (Subtract about 30 percent to get the typical discount price.) A great value, however, must be judged on performance as well as price, and it remains to be seen whether the decks can live up to the high standards set by the best Japanese manufacturers.

A/V SYSTEMS AND PROCESSORS

What started out two years ago as a trickle of audio-video components has turned into a flood. Most prominent this year is the arrival of the total audio-video rack system. Essentially, these are one-brand systems with such video components as a large (25-inch-plus) video monitor, a VHS or Beta Hi-Fi VCR, and—in some cases—the ability to decode stereo TV transmissions.

Multiplying almost as fast as audio-video systems are video control centers, switchers, and signal processors. Typical of the processors is one from Akai that lets you vary the color, enhance and stabilize the video signal, reduce noise via DNR circuitry, or synthesize stereo sound. The AVC-500 from Denon includes a stereo synthesizer, a fiveband audio equalizer, a video enhancement control, and switching for three video and four audio program sources.

Taking aim at the growing satellite TV market, Showtime Video Ventures has introduced a number of accessories, including an audio-video processor that incorporates a satellite video signal distribution amplifier, a stereo audio distribution amp, and a special color processor for compensating for some of the nonstandard transmission problems encountered with satellite TV.

And there you have it: a fast-paced look at the fast-paced field of home video.

Robert Angus

SYSTEMS & SOLUTIONS Keeping the Warps Away

LPs may not be "smart," as technological devices are judged these days, but their vinyl does have a memory. The plastic medium which, by definition, can change its shape not only "remembers" what shape it's supposed to have but to some extent can return to it after being deformed. From a music lover's point of view, this is both good and bad: good because some warps induced by bad storage conditions may go away, bad because warps caused by manufacturing defects won't.

An LP's memory isn't elephantine. Warped vinyl may resume something approaching its original shape without remembering every detail to perfection. That's why you're better off trying to prevent warps than trying to cure them.

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The first rule in preventing warps is to keep the records (in their sleeves and inner liners) stored as flat as possible, which means keeping them next to something flat. Most people keep their records together, which means storing one next to a flat, rigid surface, the second next to the first, and so on. This works fine as long as they're lined up with each other. That's why most experts recommend that you not lay the stack horizontally! Your records may align beautifully with their neighbors when you've just tidied up, but knock the stack even slightly askew and pressure will be distributed une evenly.

Standing the records vertically—on edge—automatically aligns each with its neighbor fairly well, even if you don't take much care in inserting and removing them. It also prevents the excessive pressures that can build up when a horizontal stack grows too tall. (An LP's thick "edge bead" supports



NOVABEAM TV MAKES GOING OUT TO THE MOVIES A THING OF THE PAST.

When was the last time you really enjoyed going out to a movie theater? Remember the lines? The junk food? And we'll bet you never shared a bottle of bubbly while crammed in those tiny seats.

But the lure of the big screen still got you there, didn't it? That's because, as Henry Kloss felt, ''strong visual experiences are made to seem trivial when viewed on a tiny screen.'' It's why he began developing high quality large screen TV over 15 years ago.

Now you can bring the theater experience home with Novabeam[®] television. The truly theater-sized picture makes your favorite movies and sporting events come alive right in your living room. Not only because of picture size, although there are 5', $6\frac{1}{2}'$, 10' and 15' versions to choose from. But because the picture quality is so life-like. It's what *Video Review* magazine called "by far the most impressive projection TV we have ever seen."

But nothing we can say here compares to seeing the excitement of Novabeam television for yourself in a proper demonstration.

For complete information (including specific installation details on over 20 Novabeam variations) and the name of your nearest Novabeam dealer, call 1-800-343-1155 (in Massachusetts call collect 1-617-577-1000). Or write Kloss Video Corporation, 640 Memorial Drive, Cambridge, MA 02139



most of the weight.)

With vertical storage, it's important to use flat surfaces as side supports. Wire racks can dig miniature ditches in your discs; filigreed bookends can create still more havoc. And even if you've got a filing case with flat, vertical surfaces for the records to rest against, you must be careful not to pack them too loosely (they will sag and warp) or too tightly (creating the same problems as pile storage).

Like most things, record storage is a matter of common sense. Whenever you put records away, stop a moment and look at how and where they're stored and then ask yourself whether you'd feel comfortable in comparable quarters.

Robert Long

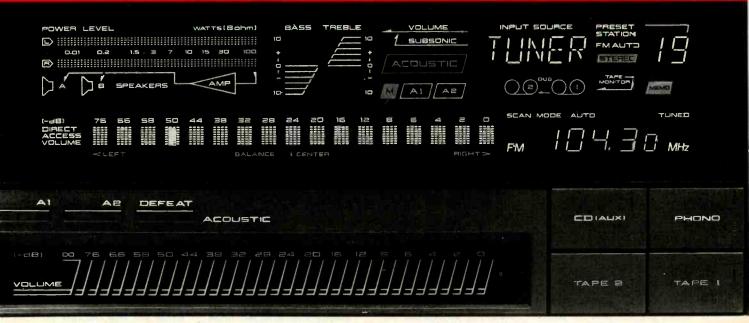
A Dubbing Dilemma

Though it wasn't displayed-or even hinted at-during the CES, we recently learned that Sharp Electronics is manufacturing a double-well VCR similar in concept to dual-transport audio cassette decks. The VC-5W2OE is designed to make it easy to dub selected material from one VHS tape to another; it also has the ability to play back a tape while recording a broadcast. Sounds to us like such a versatile machine would win many admirers in this country, yet it's uncertain whether the deck will ever be introduced here. The reason is simple: Any mention of the word "copying" in the copyright-conscious U.S. video market, and the motion picture industry gets ready to do battle. Though the Supreme Court's decision last year in the Disney/Universal vs. Sony case affirmed the legality of recording broadcasts for private viewing, Sharp may feel that a dual-transport VCR raises issues not covered in the decision. At present, the VC-5W2OE is being sold only in the Middle East.

COMING NEXT MONTH:

Our coverage of the WCES new product picture concludes with an in-depth look at the latest crop of car stereo goodies.

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This isn't just another pretty face. It's a masterpiece of electronic sophistication and technical wizardry.

One look at its dazzling FL display gives you instant verification of station frequency, memory program number, output and input source, Acoustic Memory settings and virtually every other AA-A45 receiver operating function.

You'll find AKAI innovations like Direct Access Volume Control. Just one of many computer-controlled functions, it responds with instantaneous volume settings at the touch of a bar. A special safety circuit automatically prevents abrupt volume increases and resulting performance problems.

Tuning is also at your fingertips, thanks to 20 Station Random Pre-Set Memory. An advanced tuner section that incorporates quartz frequency synthesis for continuous, drift-free reception.

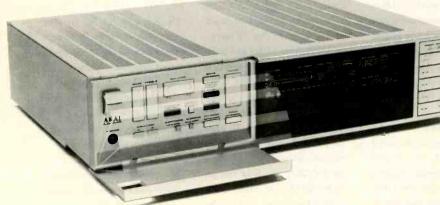
There's even a Zero-Drive circuit that eliminates distortion and negative feedback. A Dual Pole DC Servo Circuit for greater signal resolution and musical fidelity. And an MC head amp with Moving Coil Cartridge compatibility.

But the thing you'll really love about the AA-A45 is its reasonable price.

Because while a lot of companies

can design a receiver that an audio buff would love, AKAI's also designed one that you can afford. For more information on AKAI's full line of receivers, write to AKAI America, Ltd., P.O. Box 6010, Compton, CA 90024.







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EASY PIECES

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Please explain the difference between a table-model VCR and a portable one.

Pedro Evangelista Huntington, N.Y.

As far as internal functioning goes, there's no essential difference. A table model includes transport, tuner, switching, and so on in a single chassis. A portable separates the tuner from the transport, which includes a DC power supply system. When you want to record with a camera, you can take the portable's transport section only, for minimum weight. A tabletop model can be used with a camera, but only within a cord's length of it and of the household AC supply. Tabletop and portable models often are called, respectively, onepiece and two-piece VCRs.

LITTLE-SCREEN, BIG SOUND

I've read that when a Dolby Stereo movie is transferred to tape, the surround-sound information stays with it and can be extracted by using appropriate equipment. If I tape such a movie off cable, would that tape also have the surround sound?

Will

Willowick, Ohio

Yes—provided that the original stereo sound remains substantially unprocessed throughout the chain. If it is mixed to mono at any point, the difference information (that is, the left signal minus the right one, which is the key to ambience recovery) is lost. At present, most cable systems are incapable of preserving the stereo sound and, therefore, the surround effect. The principal exceptions are systems that simulcast on FM the stereo movie sondtracks from HBO and similar services.

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HI-FI AM?

I'm considering buying a Yamaha R-100 or JVC RX-500B as the new receiver for my system, but now that AM stations are beginning to turn to stereo, I'm unsure whether to wait until I find an interesting model with stereo AM reception built in. Is AM capable of producing sound quality comparable to that of FM, or is it just a question of separating the channels without improving them?

Steven E. Pfenninger New Castle, Ind.

Definitely the latter. In fact, stereo AM (like stereo FM) is likely to suffer more from noise and distortion than its mono counterpart. And so far, few AM stations have converted to stereo. To what extent this is due to apathy over its potential and not just dither over which stereo system to use (of the four accepted for AM by the Federal Communications Commission) is hard to tell. But barring a dramatic change in its fortunes, stereo AM is shaping up as a revolution that didn't happen.

FADING HIGHS

I've always used high-quality cassettes (TDK SA, Maxell UDXL-II, and metal), cleaned the heads and rollers of my Akai CS-F33R regularly, and demagnetized it periodically. But several of my old tapes have an annoying habit of fading in and out at high frequencies. The fading persists when I play them on other decks. What causes this?

Chuck Telothe New York, N.Y.

Most likely, the tape is skewing considerably, and in a way inconsistent with its behavior when the recording was made. This is most likely to happen if you record on one deck and play back on another or if a guide or other drive part in the recording deck has been knocked out of alignment. Incorrect hold-back tension on the supply-side hub (no economic pun intended) can contribute to the problem-or, if it's severe enough to stretch the tape, even cause it. I'd begin by having the deck checked out by a competent technician for these factors.

HEAR THE PICTURE?

I want to go for an advanced audio-video system, but not just yet. My present setup works well enough except for the sound from my TV set, which is lousy. I had a Pioneer TVX-9500 TV-audio tuner hooked to an outdoor antenna (the TV receiver works from cable) and feeding an NAD amplifer and two AR speakers. The sound could have been better, and a thunderstorm last summer melted down the Pioneer and the NAD. I see Radio Shack and Technics are coming out with audio tuners for TV. They say they can be hooked up to cable, which would be fine. Would their sound make

Robert Long

good use of a Hi-Fi VCR, if I get one?

Eugene Jakszta Lowell, Mass.

They may be significantly more sensitive than the Pioneer, which our report (December 1978) found disappointing in this respect. But the hang-up may be getting stereo via the cable. If the stations you're interested in broadcast in stereo and can be picked up by an antenna, that might prove more satisfactory. Even if you can't get stereo, you may find that the received audio bandwidth is wider than a conventional VCR can capture accurately, and for this reason alone, you might prefer a Hi-Fi model. But beware of expecting too much too soon from TV sound. Broadcasters' audio habits are improving all the time, but they still have a long way to go-even by AM-radio standards, in some respects.

X-RAY ERASURE

Will X-ray customs inspection ruin prerecorded tapes? Mark J. Lawrence APO San Francisco, Calif.

The X-rays won't, but the magnetic fields of transformers or other coils in the X-ray equipment conceivably could. It's my understanding, however, that the equipment is designed with this in mind and that fields strong enough to be worrisome are unlikely.

We regret that the volume of reader mail is too great for us to answer all questions individually.

A few words for those who haven't experienced Sony's new Compact Disc Player.

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Listen to it.

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What You Can (and Can't) Hear

As you've no doubt noticed by now, this issue is devoted primarily to our coverage of the Winter Consumer Electronics Show, CES is an exciting event for us, but it also is very hard work. A week of 10-hour days, walking convention-hall aisles and hotel corridors, shouting above the din of subwoofers blasting out Telarc's Time Warp at thermonuclear levels, is enough to make even a hardened audiophile plead for mercy. But sometimes the most difficult part of the job is keeping a straight face while somebody bends your ear with a notion so preposterous that it's surprising he doesn't turn beet red in embarrassment just listening to himself. I'll never forget the "crossoverless" two-way loudspeaker, the little box that transfers the signal from amplifier to speakers by means of "a force unknown in this industry," or the bigger box that's supposed to increase your amplifier's power while eliminating the need to supply it with electricity.

These are extreme examples, but there are other ideas lurking on the fringes of respectability that are harder to dismiss out of hand. That doesn't mean that they're necessarily true-just that they deserve a measure of serious consideration. By "serious," however, we mean skeptical and scientific. It does no one any good to accept uncritically the claims of mysterious sonic differences between amplifiers, Compact Disc players, and the like when there is such a large mass of carefully accumulated evidence that they don't exist,

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provided certain criteria are met.

by

For instance, controlled double-blind listening tests have proved time after time that amplifiers with adequately low noise and distortion, precisely matched gains, and identical frequency responses into the loudspeakers used for auditioning sound the same as long as they are not driven into clipping. Yet one continues to read poetic accounts of amps and preamps that are alleged to sound clearer, more three-dimensional, or less "grungy" than other presumably decent components with impeccable technical credentials

When evaluating such claims, you should apply two basic tests: Is it plausible, given what we know about how the world works, and is there any supporting evidence from properly designed listening trials? Note the emphasis. Just plugging the thing in and listening is not good enough. As much as we all want not to believe it, everyone is very susceptible to the power of suggestion, subconscious desires, unacknowledged prejudices, and the fear (at least among audiophiles) of being exposed as a tin-eared philistine. I know, because I've been there. A golden-eared guru may be able to describe an amplifier's "sound" in great detail until he is deprived of the knowledge of what product he is listening to. Then, he almost always will fail to score better than a series of coin-flips when asked to pick between it and another amp switched at random. (See "The Great Ego Crunchers: Equalized, Double-Blind Tests,"

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March 1980.) If the claim passes both tests, it almost certainly is true. If it *fails* both, the shoe is on the other foot: You can dismiss it without a qualm. A split decision means that you should suspend final judgment pending further investigation.

Having had occasion to ponder many of the current and ongoing audio controversies abroad in the world, I thought I would take this opportunity to share my opinions on them (as I already have, above, regarding the sonic contributions of amplifiers). You don't have to accept all-or even any-of them, but I hope they at least provide food for thought. My plan of attack is to move from the abstract to the very particular, starting with some general characteristics, such as frequency response and distortion, before getting down to the real nitty gritty of vacuum tubes, turntable mats, cables, digital audio, diffraction, and so forth in the next column or two.

Distortion

If there's enough of it, you'll hear it. The question is, how much is enough? The answer depends on a variety of factors, including the characteristics of the distortion and the nature of the input signal (see "Basically Speaking," February). As a rule of thumb, though, you can assume that several-percent distortion will pass unnoticed on most music. This is one reason why 3-percent distortion is such a commonly used reference in tape and tape-deck testing. And you can be certain that you're not going to hear anything less than 0.1 percent on any kind of

Michael

Riggs

music. This is why we don't even bother to report distortion figures below 0.01 percent. It is true that much smaller amounts of distortion can be heard on certain special test signals, but these in no way resemble music. Also, be wary of "newly discovered" forms of distortion. Usually the only thing really new is the name.

Frequency Response

This is a real biggy. Even very small changes in frequency response can be audible, particularly if they extend over an octave or more. The most critical range is between 50 Hz and 10 kHz. Below 30 Hz and above 15 kHz, there's not much reason to worry about what happens, as long as the response isn't rising. (Ideally, it should start to fall off below 20 Hz and above 20 kHz.)

It's curious that many of the most vociferously goldeneared tend to downplay the importance of frequency response. This may be partly due to the fact that small response anomalies sometimes affect the apparent transparency of the sound or the depth of the stereo image, rather than the tonal balance. Another possible reason is that frequency response is too easy to fiddle with. You don't have to come up with an exotic circuit to make a response change: All you need is (horrors!) a good equalizer. For a complete explanation of what frequency response is and how it's expressed, see "Basically Speaking," November 1981.

Next month, a few more general observations and a start on particulars.

A few words for those who have.

INTRODUCING THE THIRD GENERATION CD PLAYER THAT'S LIGHT YEARS AHEAD OF THE COMPETITION.

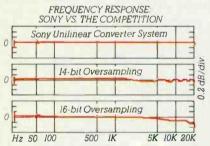
After listening to one of Sony's new third generation component CD players, you begin to realize you're hearing something not possible in any first, or even second generation player.

It's a whole new level of technological achievement not merely designed for those who appreciate great specs, but those who appreciate great music, as well.

A RESPONSE CURVE THAT ISN'T A CURVE.

All CD players are endowed with a much flatter response curve than any turntable or tape deck is capable of reproducing. Unfortunately most are also endowed with a conventional converter/filter system. Which tends to cause high frequency irregularities.

However, take the response curve of Sony's new CDP-302 (the one that's flat as a board).



As you can see, it's far more uniform than the one found in conventional models. What this should tell you is that when you listen to even the most intricate piece of music, you'll be hearing precisely what the musicians recorded. Nothing more. And nothing less.

YOU CAN'T BEAT OUR CLOCK.

Perhaps the most interesting "little" feat of engineering is Sony's new Unilinear Converter System. Its high-speed, digital-to-analog converter works by virtue of a "master clock." Using this single clock dramatically

reduces intermodulation distortion common to "multiclock" converter systems.

When you combine all this with

NOISE SPECTRUM COMPARISON div. 16-bit Oversampling IOdB/ 50K 100K Hz H div. Sony Unilinear Converter System IOdB/ 50K 100K H_2

our new, highresolution digital filter, it results in something even the most ardent audiophile will find no fault with: incredibly flat response, remarkable

phase linearity and the conspicuous absence of spurious noise caused by conventional oversampling.

Of course, you'll need a master's degree in engineering to fully understand all the intricacies of our new Unilinear Converter. But you certainly don't need one to appreciate it.

> A NEW CHIP OFF THE OLD BLOCK.

The heart of our new CD player is a thing of beauty. This awardwinning microchip governs nine different functions usually requiring multiple chips in conventional players. But more importantly, 0 it simplifies the signal path and improves reliability.

CHANGE TRACKS AT THE SPEED OF LIGHT.

Sony has done away with the lumbering geardriven tracking mechan-

ism, and instead, created a whole It uses a compact laser optic assembly that's one-third the size of typical units. And its linear, noncogging motor allows the laser to move

faster and more precisely.

If you're wondering what speed has to do with these mechanisms. we'd like to remind you of the fact that it takes some CD players up to

15 seconds to go from the first to the last track on a disc. But with ours, you can go from track 1 to 99 in less than a second.



SONY LINEAR MOTOR TRACKING SYSTEM

FEATURES WORTH HEARING MORE ABOUT.

Not all of these advances are audible to the naked ear.

Both of our new CD players come complete with Sony's Remote Commander[®] unit which provides direct access to up to 99 tracks or subcoded selections. In addition. both have Automatic Music Sensor.™ high-speed search and three-way repeat. (The CDP-302 shown here also allows for programmability of up to 16 of your favorite songs.)

We'd also be remiss in not telling you about our built-in subcode port. Which in the not-too-distant future you can make good use of when CDs are integrated with graphic information.

By now, you're beginning to get the idea that the new line of Sony

> CD players not only sound remarkable, they are.

> > So having heard and read just about all there is to hear and read about

them, we suggest there's only one new Linear Motor Tracking System. thing left to do. Go to your Sony hi-fi dealer and purchase one.

Of course, there's no rush. It will take our competition at least one or two generations to catch up.

> © 1985 Sony Corporation of America. Sony and Remote Commander are registered trademarks of Sony Corporation. Automatic Music Sensor and The Leader in Digital Audio are trade marks of Sony Corporation of America. Model CDP-102 also available.





OPTIC ASSEMBLY

SONY MINIATURIZED LASER

It dramatically broadens FM reception. And completely eliminates tape noise. The Supreme Elite car audio system. Only from Panasonic.

This car audio system automatically helps prevent fading of weak FM stations. Stops interference from unwarted stations. And even goes beyond reducing tape noise. To totally eliminating it.

Ordinary car stereos can take you just so far before they let the FM signal fade. But Panasor ic Supreme El te gives you Hypertuner So your music comes in longer and stronger than with ordinary car stereo.

Panasonic goes on to give you FM Optimizer circuitry. To further enhance tringe area reception. Impulse Noise Quieting reduces interference caused by other traffic. There's even electronic tuning with automatic seek/scan. To automatically lock in stations.

High performance on the highway.

For your tapes, Panasonic gives you Dolby* and dbx.® To not only reduce tape noise, but eliminate it. Completely.

The cassette deck section also gives you autoreverse and locking fast-forward/rewind. So you can keep your hands on the steering wheel. Instead of on the dashboard.

So why buy an ordinary car stereo system? When you can buy a Panasonic that broadens FM reception and eliminates tape noise.

just slightly ahead of our time.



*Colby is a trademark of Colby Laboratories. Ødbx is a registered trademark of dbx, Inc.

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The Nemesis Known as Noise

Today's car stereo systems are capable of truly superb sound. Yet I'm constantly amazed when I ride in other people's cars at what they accept. Most of the time, the music is intertwined with some type of noise—tape hiss, multipath interference, electrical clicks and pops, and the like—that they take as a universal shortcoming of mobile music systems. Simply, they are misinformed. Let's tackle these particular noise problems one at a time.

Noisy FM reception usually results from multipath interference, which occurs when a signal is received simultaneously from a direct and a reflected source, or from a stereo signal that is fluctuating in strength, causing a "picket fence" pattern of noise or rapid shifts between stereo and mono reception. Ironically, the better your front end, the more noticeable some types of noise may be. Inexpensive models, such as those customarily supplied as standard equipment on new cars, lessen noise by rolling off high frequencies, where the most audible part of the noise spectrum lies. Unfortunately, such bandlimiting means less treble. There are several more musically attractive solutions.

First, choose a front end

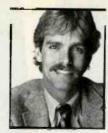
Jay Taylor, our guest "Autophile" columnist, is a freelance writer specializing in car stereo.

that gives you a choice of stereo or mono reception. By switching manually to mono, you won't have to endure the irritating swish-swish sound and collapsing stereo image that occurs every time the signal strength drops below the threshold necessary for automatic activation of the stereo decoder. Alternatively, you can choose a model that incorporates some form of high-blend circuit. Marketed under a variety of names, such circuits gradually reduce stereo separation as signal level drops, moving between mono and stereo on a continuum, thereby avoiding noise problems at the transition point.

by

Multipath is more complex. Here you're trying to sort out the best signal at a given moment to eliminate picket-fencing (a thu-thu-thu sound). The most dramatic countermeasures offered to date use dual antennas, with the front end selecting the better signal at any given instant. (The system used in Sony's XR-100 is called Diversity Reception; in Clarion's Audia DXT-1000, it is called FM Diversity.) This method does work, but it doesn't come cheaply.

Avoiding tape hiss is really quite simple, provided your tapes were recorded properly for minimum noise. Just buy a front end with a tape deck section that includes the noise reduction system you use for taping at home: Dolby B, Dolby C, or DBX. (For good results, your home and car tape noise reduction systems must be the same.) Despite what some people argue, noise reduction in a car is well worth the slight additional cost.



Electrical system noise is the most complex to deal with, but it's not even worth thinking about until you have a problem. In other words, don't spend a lot of money on various chokes and filters (which may degrade sound quality to some degree) in anticipation of problems that may not occur. If, however, you find that every time you rev the engine, your car stereo sounds like an acoustic tachometer, or that the click-click of the turn signals and windshield wipers is echoed by the speakers, then it's time to take action. Happily, most interference is directly related to faulty ground connections, which you should be able to remedy.

Virtually every metal portion of your car is potentially a good ground (Corvettes are the exception, being constructed primarily of fiberglass), so find a bolt that is solidly connected and free from paint or rust. Ground the radio with either the attached ground wire, which is always black, or with the included grounding strap by attaching it to the radio chassis. (Be careful not to ground a negative speaker lead, which may also be black.) Chances are the interference will vanish.

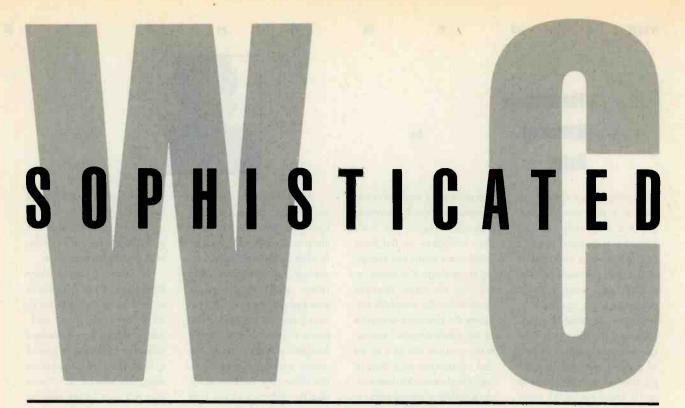
Systems using separate amplifiers, particularly large high-power models mounted in the trunk, require special attention. If a solid ground at both the radio and amplifier fails to work, try running a heavy wire (say, 12-gauge) from the dash to the trunk. Grounding the amp in the same place as the front end

Jay Taylor

is important. Also make sure that the patch cords leading back to the amp don't pass near potential sources of interference, such as the alternator.

If you've grounded everything properly and still have interference, try adding in-line filter chokes to the power leads. Available from your autosound retailer or an electronics specialty shop, they are rated for the maximum amount of current they will pass before blowing. So it's important to get the right "size" for your front end or amplifier. (A typical in-dash receiver requires about 3 amps, a high-power model about 5 amps. A very high output amplifier can draw as much as 15 amps.) Splice them into the power leads as close to the units as possible, because interference can reenter the line if the distance between the chassis and the choke is too great. Component setups require a choke at both the radio and the amplifier for effective suppression.

These modifications should either eliminate interference problems or at least reduce them to an acceptable level. If not, you can try an old installer's trick: Shield the radio with several layers of aluminum foil, being careful not to wrap it so tightly that it causes overheating. If that doesn't work, it's time to get some professional assistance.



The hi-fi story for '85 is quality, as manufacturers roll out the season's new audio products.

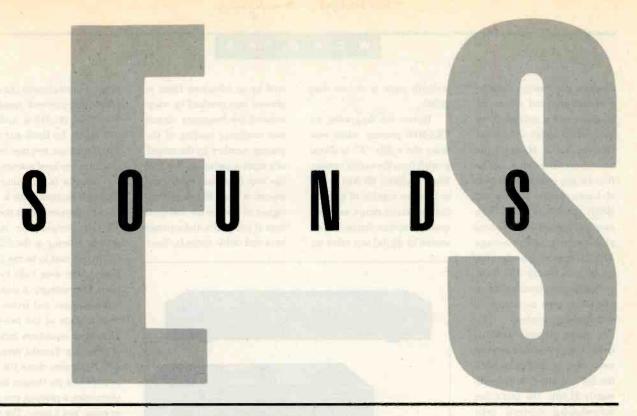
he cross-fertilization of audio and video and the success of Compact Discs seem to be creating a new audience for high fidelity products-an audience that demands quality and is willing to pay a premium price for equipment capable of living up to the potential of the new media. That was the message at the Winter Consumer Electronics Show, where audio once again proved itself to be the heart of the burgeoning home entertainment industry.

And that's good news for audiophiles. With many

manufacturers now actively courting the quality-conscious shopper, you'll find fewer gimmicks and more attention to detail in this year's crop of electronics, Compact Disc players, cassette decks, turntables, and loudspeakers. Of course, video products also played a large role at this WCES, and we've devoted most of this month's "Currents" column (page 14) to the latest trends in this field.

Though our WCES coverage aims to be as comprehensive as possible, our three stalwart reporters—

Peter Dobbin, Robert Long. and E. Brad Meyer-readily admit that the four-day show did not leave sufficient time for them to wander into every booth and display space. But not to worry: Anything missed in this 12-page report will be covered in upcoming issues, and our test reports during the next several months will document the performance of many of the most intriguing new pieces of audio and video gear. And stay tuned to HIGH FIDELITY next month for the lowdown on the WCES carstereo scene.



ELECTRONICS Preamplifiers

The quest for perfection in audio is an all-consuming task for those small specialist companies involved in the design of preamps and power amps, and we've come to expect a fair number of exotic hand-crafted separates to be on display at every CES. Audio Research continues to promote the cause of tubes over transistors and this year has come up with a tubed pre-preamp, the MCP-33 (\$1,395). It is described by its manufacturer as a champion in "musicality, staging, focus, and dynamics." Less costly and yet capable of interfacing with a broad range of moving-coil pickups is Monster Cable's Alpha Plus prepreamp (\$375). Engineered by Demian Martin, designer of the Spectral preamp, the Alpha Plus has five front-panel pushbuttons that enable you to choose the resistive loading for the pickup at hand.

The Mod Squad (whose name

describes a portion of its business: modifying other manufacturers' equipment for higher performance) has its own preamp this year, the Phoenix. The \$2,500 unit uses solidstate devices called TFETs, which the company says combine the advantages of transistors and tubes. A dual-mono design, the Phoenix even has separate volume controls for each channel. Another dualmono preamp, the Motif FCD-7 from M. Berns Industries, is not content with just separate volume controls: This \$3,500 model also asks you to switch sources separately for each channel.

From Canada comes the Morrison Pre-1A preamp (\$895). Said to have a bandwidth in excess of 400 kHz, the unit accommodates four sources and has a separate power supply. The Sierra preamp, from Nevada-based Paracass Corporation, is a high-spec unit constructed with great attention to the quality of its internal components. The company proudly details its use of Wonder Caps for coupling capacitors, 1-percent-tolerance metal-film



W C E S '8 5

resistors, silver switch contacts, a custom-designed volume attenuator, and a mil-spec fiberglass circuit board with platedthrough holes. Many of the same internal goodies can be found in two new preamps from McLaren Audio: Models 602 (\$850) and 402 (\$1,250). Both have moving-coil and fixed-coil phono inputs and two-stage **RIAA** equalization circuits, while the Model 402 adds switchable tone controls and an additional tape monitor loop with dubbing switches.

Among the more mainline audio companies introducing new preamps, McIntosh leads the list with the C-30 (approximately \$1,650). The unit's five tone-shaping controls echo McIntosh's traditional concern that a preamp provide the kinds of controls necessary to "repair" below-par recordings. The unit is also particularly flexible in the number of sources it will accommodate: In addition to the usual phono, tuner, and tape inputs, the back panel has jacks for a CD player, a videodisc player, and a VCR. McIntosh also has a remote-control system on tap for the summer. The CR-5 will consist of a hand-held controller and a base station. which takes over most of the functions of a preamp (except for balance and tone contouring, which are handled through an outboard preamp via a processor loop). Preliminary information states that the CR-5 will enable you to select from five inputs, control the volume in three listening areas simultaneously, change stations on a tuner, and control a tape recorder (provided the deck is capable of remote control). In addition, a timer in the base station lets you set the system for unattended turn-on and turn-off. McIntosh has not yet fixed a price for the CR-5 system, but a representative stated that it will probably come in at less than \$2,000.

Denon has upgraded its PRA-2000 preamp, which now bears the suffix "Z" to distinguish it from the earlier version. The PRA-2000Z (\$1,300) is said to be more capable of meeting the "dynamic-range and frequency-response demands" presented by digital and other auered by an infrasonic filter, to prevent tape overload by warpinduced low-frequency signals and nonlinear loading of the preamp circuitry by the recorder's input impedances. The 1155 has both fixed- and moving-coil inputs, a bass EQ circuit designed to restore the rolled-off bass of many LPs, and separate bass and treble controls. Tand-



Both NEC's A-10 Mk. II integrated amp (center) and Nakamichi's CA-5 preamp (top) omit tone controls—a favorite target of some audiophiles. And with its B-2X power amp (bottom), Yamaha once again proves that high-spec electronics can look as good as they sound.



diophile program material. NAD's newest preamp is the Model 1155 (\$298), an attractive no-frills design characterized by lots of attention to detail. The unit is equipped with separate source and tape-out selectors, making it possible to record one program while listening to another. In addition, each of the unit's two tape outputs is buffberg's new TCA-3008A preamp (\$795) represents a complete redesign of the company's earlier 3002A, now discontinued. According to a Tandberg representative, the new model has lower noise, better RF rejection, less phase shift, and faster transient response. And Canton, the German loudspeaker company, has come up with a preamp designed to complement the company's self-powered speakers. The ECP-1 (\$1,500) is outfitted with inputs for fixed- and moving-coil pickups, two tape decks, and three line-level sources.

Yamaha is pursuing the high-end shopper with a new line of separates it calls the Audiophile Series. The initial preamp offering is the C-2X, a \$1,300 unit said to be the finest preamplifier ever built by Yamaha. Interestingly, it uses conventional bass and treble controls in place of the two-band parametric equalizers included in other top Yamaha preamps. And Nakamichi chose the CES to introduce its Dragon line of electronics: a preamp, two power amps, and a tuner. The CA-5 preamp (\$595) is a minimalist's delight: In Nakamichi's words, it "offers only those features essential for true high fidelity performance-an output level control, a balance control, an input selector, and a three-position tape monitor." The preamp will accommodate two tape decks, three high-level sources, and a phonograph equipped with either a moving- or fixed-coil pickup.

Power Amplifiers

Though its preamp is bound to win admirers, Nakamichi sees its power amps as providing the real cachet in the line. Both the PA-7 and PA-5 use Stasis circuitry developed by Nelson Pass of Threshold Corporation. Stasis amplifiers produce very low distortion but use no overall negative feedback to control circuit nonlinearities. This neat trick is accomplished by the use of two output stages connected in parallel: a low-power, highquality voltage amp and a highcurrent bootstrap amp. Because the output impedance of the voltage amplifier is much lower than that of the current boot

I didn't buy my car stereo backwards. Why should you?

My car stereo dealer told me if you want clean clear accurate sound--choose your speakers first. Because if the speakers can't handle it, you won't hear it. No motter what kind of sound your receiver pulls in.

Then he told me: Jensen.®

If you want to hear it the way they played it, choose Jensen speakers first. Jensen invented car speakers in the first place. And they're a leader today. Simply because they know how to deliver the goods.

Naturally I got a Jensen receiver to go with my Jensen speakers. Great team, designed to play best together. Makes sense. Makes great sound, too. I want to near it all. With Jensen, I do.

JENSEN When you want it al.

strap, it determines the voltage across the load while generating only the small amount of power necessary to compensate for the errors of the high-current bootstrap stage. The result is not only low distortion but also uniform output impedance across the audio band and very high current capability. The PA-7 (\$1,495) has a rated output of 200 watts (23 dBW) per channel and is said to be capable of supplying as much as 16 amps of current continuously into lowimpedance loads. The PA-5 (\$850) is rated at 100 watts (20 dBW) per side and can pump out 9 amps.

Down the hall from Nakamichi, the Threshold Corporation displayed a prototype of Nelson Pass's latest creation: a pure Class A mono power amp. Rated at 150 watts (213/4 dBW) per side, a pair of amps is expected to sell for about \$7,000. Also displaying mono amps were Audio Research Corporation (ARC) and Quicksilver Audio, both using tubes instead of transistors. A 100-watter, the ARC-100 sells for \$5,000 per pair; the Quicksilver Mono Amp, at 60 watts (173/4 dBW), seems a relative bargain at just \$1,200 per pair. The highestpower mono amp on display was Tandberg's TPA-3009A, a solidstate design rated at 180 watts (221/2 dBW) and selling for about \$2,000 per pair.

Yamaha's new power amp, the B-2X, is billed as the best ever from this prestigious Japanese manufacturer. The \$1,500 stereo amp (170 watts per side) is said to produce Class A performance without the size and heat generation of conventional Class A designs. It is also one of the handsomest amplifiers we've ever seen. McIntosh's new MC-752 is the company's first separate amp to eschew transformers in favor of a direct-coupled output stage. Capable of pumping out 75 watts (183/4 dBW) per side into 8-ohm loads (100 into 4 ohms), the MC-752 is expected to cost about \$900. A far more modest amp from McIntosh is the tiny MC-202, a 20-watt (13-dBW) stereo amp intended for use in the company's multiroom remote-control setup.

NAD, a company that has carved a niche for itself based on innovative, high-value products, proudly displayed the Model 2200 Power Tracker amplifier (\$448). Designed to respond with ease to musical peaks, the amp is said to have 6 dB of dynamic headroom. Thus, while it meets FTC standards with a continuous power rating of 100 watts (20 dBW), it is capable of momentary outputs of 400 watts (26 dBW) into 8 ohms and 500 watts (27 dBW) into 2 ohms. Adcom's latest is the GFA-555 (\$550), a high-current design with a rated power output of 200 watts (23 dBW) into 8 ohms. And this spring, the David Hafler Company will ship a new medium-power amp, the DH-120 (62 watts per side, \$320). An especially nice feature of the amp is a built-in stereo ambience-recovery circuit and outputs for a set of back speakers that can be operated simultaneously with the main speakers.

Rotel, a Japanese company that vanished from these shores a couple of years ago, is back this year. The new Rotel has a full line of gear, ranging from power amps to cassette decks, all designed in England and imported to the U.S. by the distributor of B&W loudspeakers. The Rotel RB-880 power amp (\$499) is billed as a no-nonsense design with "rather incredible energy reserves" and a power output of 100 watts (20 dBW) per side. Parasound's first power amplifier fits in with the company's dedication to high-quality, lowcost audio. The PA-2120 is rated at 120 watts ($20\frac{3}{4}$ dBW) per side and costs just \$400.

Integrated Amplifiers

Integrated-amp introductions are fairly abundant this year, with several notable new designs. Proton, for instance, says its Model 540 integrated amp has more than 9 dB of dynamic headroom into 8-ohm loads. This means that the amp, which has an FTC rating of just 40 watts (16 dBW) per side, can pump out about 360 watts in response to musical transients. The handsomely styled unit has provision for two tape decks, a separate record-out selector, bidirectional dubbing switches, and inputs for three high-level sources plus phono. Pioneer is once again courting the highend buyer with a new lineup it calls the Elite Series. The A-88X integrated amp has all the controls and switches anyone could ever want plus one that enables you to bypass several of them for a "completely unadulterated signal path." The \$700 unit has a rated power output of 115 watts (201/2 dBW). If you can stand 3/4 dB less output (a completely negligible amount), Pioneer's A-77X will save you \$200 off the cost of the top model.

Kenwood adds two new integrated amps to its Basic Series this spring. Both use something called Super Dynamic Linear Drive, an amplifier topology with two output stages operating in tandem, fed by lowand high-voltage power supplies. The net effect is said to be lots of dynamic headroom. Also new is a refinement of Kenwood's Sigma Drive concept, which maximizes the amp's damping factor by bringing the speaker cables into the feedback loop. The new Sigma Drive Type B circuit does not require additional cable connections between the amp and the speakhost of operating conveniences can be found in the KA-1100SD (150 watts, \$705) and the KA-880SD (100 watts, \$355). Harman Kardon is pulling out all the stops with four new integrated amps: the 20-watt PM-625 (\$195), the 40-watt PM-645 (\$275), the 60-watt PM-665 (\$450), and the 100-watt PM-665 (\$650). These are classic Harman Kardon designs with lots of muscle under the hood.

ers. All these features plus a

And finally, NEC enters the world of high-end audio with what appears to be a finely designed integrated model, the \$600 A-10 Mk. II. Built around something the company calls a Reserve II power supply, the amp is spec'd at power outputs of 60 watts (173/ dBW) into 8 ohms and 120 (203/ dBW) into 4 ohms. The unit's design also reflects the concern of some Japanese audiophiles about the possible ill effects of mechanical resonances on the sound of an amplifier, so it has a 3/8-inchthick steel chassis with crossbraced supports.

Tuners

Among the several tuners introduced at this WCES, one stands out both for its price (about \$3,000) and for the tantalizing glimpses its manufacturer, McIntosh, has given of its performance. Scheduled for introduction this summer, the MR-81 is said to contain complex signal-processing circuits designed to provide maximum dimensionality and stereo-image stability regardless of interference. The same circuits are also used in what a company representative describes as "a sensational AM section" to create synthesized stereo from mono broadcasts. Preliminary FM specifications are fairly extraordinary: In the "super narrow" IF filter position, adjacent- and alternate-

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channel selectivity are 50 and 90 dB, respectively.

Schotz noise reduction circuitry, a dynamic high-blend that "listens" to broadcasts and reduces separation when highfrequency program content cannot effectively mask the noise in a weak broadcast, is finding more adherents this year. Crown's FM Three (\$795), Proton's Model 440 (\$270), and Nakamichi's ST-7 (expected price: \$595) all use Larry Schotz's innovative circuit, which is said to afford a substantial improvement in effective stereo sensitivity. NAD's Schotz-equipped tuner made its debut at last year's CES.

Yamaha's T-2X tuner completes the initial electronics lineup in the company's Audiophile Series. It is said to be similar in design to the T-80 tuner (test report, January), but with better noise and distortion figures. The T-80's useful fine-tuning control, which enables you to zero-in on hard-to-receive stations by mistuning slightly, is retained in the new model. A similar fine-tuning control is also used in Apt's first tuner, the T-1 (about \$550). Pioneer's bow to the high-end shopper includes an Elite Series tuner, the F-99X (\$325). The new unit has a second-generation version of the company's Direct Digital Decoder for lower distortion and noise. Kenwood claims to have incorporated a completely redesigned MOS-FET front end into its new KT-880 (\$235). The result, it says, is a frequencysynthesis tuner "superior to virtually any analog tuner."

Magnum Electronics's FT-101 tuner—its prototype shown at the last CES—is finally available. Equipped with separate center-channel, multipath, and signal-strength meters, the \$429 device has the kind of flexibility many users miss in modern designs. PS Audio and Kinergetics have also added tuners to their lines. Each claims hitherto unobtainable sonic performance, and Kinergetics includes its proprietary hysteresis-correction network to remedy "electronic friction" in the broadcasting studio. And Harman Kardon completes its tuner lineup with the TU-905, a \$185 model with an analog tuning scale. Model 900 (\$600) use Carver's noise reducing FM circuits and have power amp sections rated at 200 watts (23 dBW) and 100 watts (20 dBW), respectively. The top model comes with a remote control and is equipped with a Sonic Hologram Generator for enhanced stereo imaging. NAD's latest receiver, the Model 7130, is said to have more



surprises for the future.

Sony's multimode outboard D/A converter, the DAS-702ES, and Compact Disc player with digital outputs, the CDP-650ESD (below, atop the converter), point to the day when audio systems will have to accommodate several digital sources. Meanwhile, companies like Marantz, with its CD-64 (top), continue to popularize the CD format with inexpensive players.



Receivers

Bob Carver's CES press conferences are always eagerly awaited, but the "boy wonder" was fogbound in the Seattle airport and couldn't attend the unveiling of his two new receivers, which bracket the current model in price and features. The Model 2000 (\$1,500) and the power, better FM performance, and more features than the earlier Model 7120, yet it carries the same \$348 price. The 30-watt unit has 3 dB of dynamic headroom, and its FM section is equipped with Larry Schotz's noise reduction circuit.

McIntosh has not yet figured out a price for its new Model 4200 receiver, but a preliminary spec sheet describes its signal-lock-loop tuner section as quieter than conventional phase-lock designs. The receiver's volume control is said to have a 1-dB channel-to-channel accuracy throughout its range, and five separate tone-shaping controls afford the same level of flexibility as found in the company's separate preamps. Pioneer is filling out the lower reaches of its line with four new receivers ranging in price from \$270 to \$150. Nikko's three new receivers are rated at 65 watts (18 dBW), 48 watts (163/4 dBW), and 35 watts (151/2 dBW). Akai's addition to the low end of its receiver line is the \$170 AA-A1, a 35-watter with an analog tuning scale. And Hitachi has equipped its HTA-70F receiver (\$580) with just about every feature an aspiring audiophile might want. The 70-watt (181/2-dBW) unit comes loaded with a seven-band graphic equalizer and matching spectrum analyzer display, plus two tape loops.

Peter Dobbin

COMPACT DISC PLAYERS

As codevelopers of the Compact Disc system, Philips and Sony are in a privileged position when it comes to devising new applications for the technology they pioneered. Two years ago, in a symposium I attended at Philips's headquarters in the Netherlands, the company's researchers described the possibility of an audio system in which digital processing would be used to perform equalization, compression, expansion, and noise reduction. Making such a system practical would mean keeping the output from Compact Disc players, satellite receivers, and PCM tape recorders in the digital domain for as long as possible, converting it to

analog at a central digital-to-analog (D/A) processor directly upstream from the amplifier. At the time, such an approach seemed interesting, if a bit farfetched. But technology advances swiftly, and Sony startled everyone at the WCES with its introduction of an outboard D/A converter and "companion" CD player equipped with digital outputs.

Alas, though interesting and perhaps prophetic, the DAS-702ES converter (price not available) seems premature as a consumer item. The device can handle four sampling frequencies: 32 kHz, the international broadcasting standard; 44.056 kHz, the standard for 14-bit consumer processors; 44.1 kHz, the standard for 16-bit consumer processors, as well as the Compact Disc; and 48 kHz, the professional recording standard. The company claims that the DAS-702ES is capable of extracting better sound from the digital bit stream than is possible with the D/A converter built into an "all-in-one" CD playera rather meager argument considering the sonic excellence of today's players.

Though it is equipped with a digital output, Sony's new flagship player, the CDP-650ESD (price not available), also has an integral D/A converter, making it amenable to standard use. And with this generation of players-which includes the CDP-520ES (\$600). the CDP-302 (\$550; tested in this issue), and the CDP-102 (\$450)-Sony has come up with a 16-bit D/A converter that uses two-toone oversampling and digital filtration in concert with gentle, low-phase-shift analog output filters. All of the new players are equipped with subcode outputs that will eventually enable you to relay CD-encoded graphics to your television set. (So far. however, manufacturers have

been mum on when interfaces to join a CD player and a TV set will be available, as have been software companies on their plans for graphics-encoded discs.) And finally, a linear-motor tracking mechanism in the players provides incredibly rapid track access.

In terms of user convenience, the new Sony players stack up as follows: The CDP-102 is the plain Jane in the line, lacking programmability; the CDP-302 adds 16-band randomaccess programmability; the 520ES, part of Sony's high-end ES line, is identical to the 302 in conveniences, but it uses higher-spec internal components; and the flagship 650ESD adds a front-panel keypad to augment the remote's numeric keys and a nifty little function called Shuffle Play that randomizes band selection during play.

Kenwood's latest is the DP-1100 Mk. II (\$635), a 16-band programmable model with a 24function remote and threespeed audible cueing. Carver's first CD player has the benefits of built-in "digital time lens" circuitry. Also available in a separate component, the Carver invention adjusts the spectral and L-R content of CDs, improving the balance and ambience of poorly recorded discs. Using two-to-one oversampling and a 16-bit D/A converter, the Carver player (\$650) has 16band programmability. Yamaha replaces its discontinued CD-X1 with the \$400 CD-X2, which is capable of memorizing a nineband programmed sequence. McIntosh's first CD player, the MCD-7000 (\$1,400), uses the Philips chip set (14-bit D/A converters with four-to-one oversampling) and offers 20-band programmability plus remote control.

Pioneer says its new P-DX700 (\$540) has improved error detection and correction circuits. It is equipped with a loop memory function and ten-band random-access programmability. Akai offers a ten-band memory and remote control in its \$600 CD-A7T. Hitachi's answer for the budget shopper is the DA-4000, a \$400 nonprogrammable model. Priced similarly, Marantz's CD-64 gives you 20band programmability.

Peter Dobbin

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Technics has announced another home digital processor. The NV-T160 (\$800) is designed to make use of the slowest VHS speed (EP), reducing tape cost below that of metal audio cassettes (let alone open-reel tapes). There is provision for connections to two VCRs and for dubbing between them.

Among new equalizers, the ADC SS-415X (\$430) can memorize four curves. A backup power supply ensures that the memory will remain when the power is off. The 12 bands per channel include 16 Hz and 32 kHz, both beyond the range of most graphic equalizers and useful as steep filters-for rumble and ultrasonics, respectively. Rocker switches step the controls up or down in 2-dB increments to a maximum of ±12 dB. Two tape decks can be connected to the SS-415X, which can equalize the recording feed and provide full monitoring and dubbing in either direction.

Parasound's EQ-250 (\$240) has separate stepping controls for ten bands in each channel. There are two ranks of steppers: one for boost and one for cut in each band. The unit offers monitoring for two decks, EQ switching for the recording feed, and unidirectional dubbing. The new Labo Series from Nikko includes a 30-band equalizer, the rackmountable EQ-35, designed primarily for commercial sound and other professional applications. Vector Research's VQ-130 (\$300) has ten bands per channel, individually adjustable to ± 12 dB, and includes a pink-noise generator and a calibration microphone. The VQ-110 (\$110) dispenses with the generator and mike.

Sci-Coustics is marketing several versions of its IMX stereo-image enhancer, each selling for less than \$100. The Model 200 is smaller than the original 100; the Model 250 adds stereo simulation for use with mono TV broadcasts. The remaining units, 300 and 350, are similar but intended for the car. Fosgate has a new processor for recovering ambient information in regular stereo recordings or decoding Dolby Stereo video sound. The Model 3601 (\$550, plus \$75 for an optional remote control) is said to be redesigned specifically for its intended uses, eliminating circuitry originally developed for erstwhile quadriphonic systems. Meanwhile, the previously announced Audionics SD-2 Dolby Stereo surround processor (\$359) is finally in production.

We don't encounter many new electronic crossovers these days, but Nikko's Labo Series includes one. The D-403 offers a choice of 21 turnover frequencies. It is rack-mountable and can be set up for two-way stereo or three-way mono use.

Two component-mating devices come from Soundcraftsmen. The \$89 AutoBridge AB-1 is a bridging adapter that processes the input signal so that two typical stereo amplifiers can be run as a stereo pair of mono amplifiers with much greater output. The \$39 Power Coupler PC-1 takes the output of a stereo receiver or integrated amplifier and mates it to the input of a high-power separate amplifier to upgrade the dynamic range of the stereo system.

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Monster Cable checks in with two Soundex products, and though they're not really signal processors-at least not in the electronic sense-this roundup wouldn't be complete without a mention of them. The Acoustic Window (\$695) consists of a pair of cylinders six feet high and ten inches in diameter that act as resonance dampers when placed in adjacent corners of the listening room. The object is to keep the sound from becoming boxy. and Monster Cable says that the dampers don't inhibit the reproduction of lows in the program signal. The Acoustic Imager (\$280 to \$330) is a sound panel designed to go behind and between your speakers to damp early reflections from this area, which otherwise tend to compromise stereo imaging. The panel is available in a variety of sizes and finishes

Audio-Video

Partly because of its newness, the growing integration of audio and video systems is calling a good many products into being. Akai, for instance, introduced four models in this category. The simplest is the DI-V5 (\$160), which selects audio mode and level for five inputs. The PS-V20U (\$350) combines a video enhancer using a joystick for color corrections with a mike mixer and stereo synthesizer. The SS-V5 (\$200) and SS-V20 (\$650) are audio-video selectors. The first model handles three VCRs, including dubbing, and two other devices; the "big brother" adds another source, can feed two monitors, and has its own built-in 41/2-inch color monitor and stereo speakers.

Denon's AVC-500 (\$375) comprises an audio-video switcher and an audio processor. The latter can simulate stereo from mono audio and apply phase processing to either genuine or simulated stereo to recover or synthesize hall ambience. The built-in five-band graphic equalizer responds to program dynamics: If you boost highs for improved intelligibility, it will turn itself off in the absence of audio signals so that it won't exaggerate background hiss.

For \$150, Pioneer offers the VS-60, an audio-video monitor-

Panasonic combines a cablecompatible TV tuner with a switching center in the \$499 TU-1014. Its TUG-3010S (\$149) is a decoding adapter for receiving stereo or bilingual audio on appropriately equipped Panasonic TV sets, but it also includes video recorder switching. The Technics SH-4090 also follows that pattern.



SS-415X (top), now share the spotlight with electronic stereo-image enhancers, such as the Sci-Coustics Model 200 (center), and at least one electronic crossover: Nikko's Labo Series Model D-403 (bottom).



ing/dubbing control center equipped to simulate stereo or filter hiss with DNR (if necessary). The GC Electronics Model 32-3220 switcher will handle as many as six RF inputs. Carter-Craft's TV Stereo Sound Simulator Model 60-302 (\$20) has highand low-level inputs, an output level adjustment, and a switchable noise filter.

Hooker-uppers

Monster Cable has introduced several new high-tech interconnect cables. Among them is a hookup for mating Compact Disc players to stereo systems: the Interlink CD, one of the company's "bandwidth balanced" products designed by Bruce Brisson. Said to be capable of counteracting any number of alleged digital deficiencies, the cable costs \$3 per foot; finished sets range from half-meter pairs (\$40) to 20-foot pairs (\$150). Athena Audio's Polyphasors, also designed by Brisson, are passive terminating networks intended to correct conductor-caused time and phase errors. They're available in three versions, keyed to three common signal levels: phono cartridge, line level, and speaker.

QED, which also makes a variety of high-performance cables, has added the UHSS-4 switcher. It routes four speaker pairs through a low-loss network, using series/parallel connections for appropriate impedance matching no matter how many pairs are live. The CD-S selects between two line-level sources so that you can add a CD player to a preamp or receiver that has no inputs to spare.

Russound's DB-8 high-power sound distribution system has level controls for multiple speakers. Price depends on the number and type of modules in a specific system. The HP-3 speaker selector will do the chore on a much simpler basis, without level controls, for \$100 (\$110 with walnut sides). Capable of handling up to 250 watts, it controls as many as four stereo pairs, keeping impedances appropriate for typical amps-even models that won't accept commonground hookups. The FP-24 patchbay (\$180) can be bought rack-mountable or freestanding and accepts as many as 24 pinjack pairs on the back panel, feeding corresponding frontpanel miniature phone-jack pairs for patchcord interconnection. If that won't handle all of your system's inputs and outputs, multiple patchbays can be stacked.

Niles Audio also has a covey of new switchers. The SVC-4 (\$280) handles four speaker pairs and two amplifiers (including bridged amps) via autotrans-

formers. Rack-mount ears are available; so is a model for two speaker pairs, the \$140 SVC-2. Then there's the MSA-1 (\$499), which accommodates as many as ten speaker pairs and presents the same load to the amplifier regardless of the pair in use. A 200-Hz tone helps you fine-tune the balance adjustments for precise comparisons (as in an audio store) or just fine sound (as in elaborate multiroom home systems). The PS-1 phono switcher (\$45) can choose between two pickups going to the same preamp or between preamps for a single pickup. With the APX-1 (\$55) you can select any of four sources going to a single highlevel input. And the TSB-3 (\$75) has rotary switching for recording, dubbing, and playback of three tape decks working off a single preamp (or receiver) tape loop.

Robert Long

T A P E E Q U I P M E N T Cassette Decks

As usual, all the new high fidelity tape equipment for home use is designed for Compact Cassettes and includes Dolby B noise reduction. The "new wave" of microcassette equipment seems to have spent its energy without materially eroding the older format's bastion. In fact, the Compact Cassette appears to be triumphant for virtually all home music and entertainment applications; the microcassette remains preeminent in portable dictation and is attracting attention for datastorage.

Many of the new models are announced in two stylings: black and silver. That doesn't always mean that both will actually be available. Sometimes a company makes prototypes both ways to test the waters but produces only limited quantities (or none) of the less popular version. If you're adamant about such matters, inquire of your dealer. If nothing else, that will help him learn what styles his customers prefer, and he can then order accordingly.

Technics's professional line has a new cassette deck: the \$480 RS-B85, with phase-comprofessional version of the TCD-3014 that we reviewed last August; also available are a playback-only model (TCD-911, \$1,795) and one designed for computer control (TCCR-530, \$1,195). (Included, too, in the professional line are the ¼-inch open-reel decks of the TD-50 Series.) Meanwhile, the TCD-3014A (\$1,450) refines the real-



Kenwood's KX-780 (center), a three-header with monitoring, is all business. Aiwa's AD-R450 (top) offers autoreverse convenience and bias fine-adjust keyed to popular tape formulations. And Pioneer's CT-Z99W (bottom) combines high-speed dubbing with many studiolike features, including a fader and a seven-band equalizer.



pensating circuitry, Linear Feedback to minimize harmonic distortion, and both DBX and Dolby C noise reduction. It is designed for both demanding home recording and professional applications. Tandberg's newly formed professional division offers the TCD-900 Series. The TCD-910 Master Cassette Recorder (\$1,995) is essentially a time counter, motor design, power supply, and headphone amplifier of the original.

Teac has added three reversing decks. The R-666X (\$459) and R-555 (\$360) offer Real Time Reverse, which claims nearly imperceptible music loss, for bidirectional recording as well as playback. Both have a variety of convenience features and Dolby C noise reduction; the 666X adds DBX and a repeat mode. The \$299 twohead R-300, with Dolby B only, offers bidirectional playback. The company also has added a dual-transport deck: the \$399 W-440C, with double-speed dubbing, continuous two-transport playback, Dolby C, and mike-input mixing.

NAD has announced production (at \$348) of an innovative model whose prototype we reported on last fall. Now called Model 6155, it incorporates a playback EQ adjustment ahead of the Dolby circuit for optimum response with or without noise reduction. The system, developed jointly by NAD and Dolby Laboratories, is called Play Trim. Parasound has added to its component line the CD-400, a \$230 Dolby C deck with wideband audio circuitry. And Bang & Olufsen has designed the Beocord 2000 (\$450) to work with the remote control system of the Beomaster 3000 receiver.

In our February issue, we reviewed the Vector VCX-650, which has a built-in five-band recording equalizer. It actually is the flagship model (at \$500) of three introduced officially in January. The other two are the \$380 VCX-450, with bidirectional recording and playback, and the \$230 VCX-250. Both offer music search and Dolby C. Proton's Model 740 (\$240), with Dolby C and DBX, is a two-head deck with memory repeat.

The latest in Akai's GX Series is GX-A5X (\$260); also new is the HX-A3X (\$230). Both offer DBX and Dolby C. Aiwa continues its series of quick-reverse models with the AD-R450 (\$250), a two-head deck with bidirectional recording and Dolby C. Kenwood has added two \$355 models. The KX-780 is a highperformance three-head design with continuous bias adjustment; the KX-790R offers bidi-

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But, if you're on cable, your cable company is rebroadcasting UHF over unused VHF channels. So with the Cable Controller tuner, you'll get it all. TOTAL RANDOM ACCESS TUNING

TOTAL RANDOM ACCESS TUNING The wireless infrared remote hand controller does it all. It switches both

the TV and the Controller on and off and selects your channels. **And**, look at this. You can select your favorite channels (up to 6) and store them in a special section.

Then just touch the special 'RCL' Recall Button and you'll be able to sequence through only your favorite channels. This is especially convenient if you like to flip through movie channels during commercials on regular TV.

For the other channels, you'll enjoy total random access tuning. You can go directly from channel 2 to 28. Or you can step tune one channel at a time.

Once you've set your own TV to channel 3, you can just forget it. Any fine tuning is handled from the wireless infrared remote handset. And you'll have crystal controlled frequency phase lock loop synthesizer tuning for the finest picture.

You'll see the number of the station that you have selected displayed on the command base. And, you can tune channels either from the remote or the base.

Color tints, volume, brightness and contrast are all controlled by whatever method you now use.

INSTALLATION

Nothing to it. All cable systems use 75 ohm round cable. Simply unscrew the end from your TV and screw it into the Controller base input.



Then screw in an identical cable (included) between the Cable Controller and your TV. Finally, plug your TV's AC plug into the Controller and the Controller's AC plug into the wall.

WHAT IT IS

The Cable Controller is actually a very sophisticated, all electronic VHF TV tuner/receiver. It's really like a TV set without a picture tube.

Since it's all electronic, you won't be getting snow from dirty tuning contacts and loss of fine tuning as the set ages.

The Controller tunes all the possible stations that your cable can broadcast, something that would be very expensive to build into standard TVs, because not all TVs are going to be used on cable.



GREAT FOR VIDEO RECORDERS Now you can record off cable. With the Cable Controller hooked to your video recorder you can open the world of cable to your video recorder too.

Cable ready video recorders that don't even tune in 60 channels can cost hun-

dreds of dollars extra. You can feed both your TV and video recorder. Or, you can separate them so that you can easily watch one thing and record another.

WHAT IT ISN'T

It isn't one of the infamous 'black boxes' you might have read about that illegally decode various 'Pay TV' channels. On cable, most of the programming isn't scrambled, it's just found outside the tuning range of the average TV.

So, if there is a Pay TV channel that is scrambled, or is only unscrambled on one TV in your house, the Controller is not made and should not be used to tune it in without paying.

Actually 'Cable Ready' TVs and video recorders do basically the same thing as the Cable Controller, but cable tuning is usually an added on feature that often doesn't cover as many channels.

The Cable Controller is made and backed by a standard limited warranty from Universal Security Instruments Inc.

TRY THE WORLD OF CABLE RISK FREE

Relax up to 20 feet away. Change channels, adjust the fine tuning or turn your set on or off. Explore the vast number of cable channels available to you.

Try it risk free. If you aren't 100% satisfied, simply return it in its original box within 30 days for a refund.

To order your Universal 60 Channel Cable Controller with Wireless Infrared Remote Control, risk free with your credit card, call toll free or send your check for DAK's market breaking price of just **\$88** plus **\$5** for postage and handling. Order Number 4147. CA res add tax.

There's a whole new world of entertainment waiting for you just off your normal TV tuning range. With the Cable Controller, you can sit back in your favorite easy chair and tune in the world.



For credit card orders call 24 hours a day 7 days a week CALL TOLL-FREE. . . 1-800-325-0800 8200 Remmet Ave., Canoga Park, CA 91304

rectional recording and playback and a music-search/repeat system. Both are equipped with Dolby C.

Nikko's two additions are the ND-750, with quick-reverse bidirectional playback, music search, and Dolby C, and the ND-550, with cue and review. The recently reintroduced Rotel line includes a Dolby C deck, the RD-850. In addition to models for its Sound Creating and Progression IV "rack" systems, Pioneer has introduced five decks. The CT-A9X (\$800) and CT-A7X (\$500) are essentially two of its former top models (originally without the "X" suffix) moved into the new Elite Series. Brand new are the dualtransport CT-Z99W (\$500), with high-speed dubbing and built-in seven-band graphic equalizer, the CT-S22 (\$150), with Dolby C. and the CT-S11 (\$135).

Sansui also has added models for its Super Compo systems, as well as a stand-alone dual-transport deck. The latter is the \$500 D-W10, with two auto-reverse transports so that you can record continuously for as long as three hours (on C-90 cassettes) unattended-or indefinitely if you replace the cassette in one transport while the other is recording. Its features include high-speed dubbing, music search, mike mixing, and automatic or manual control of recording levels.

Sherwood has introduced four modestly priced models, ranging from the \$250 S-260R, with automatic-reverse playback, Dolby C, cue and review, and music search, down to the \$160 S-95, with Dolby C. Sharp has brought out two models at less than \$100: the \$90 RT-120 and \$80 RT-110; also new are the RT-320, with bidirectional playback, and the dual-transport RT-W600, with double-speed dubbing. Each includes Dolby C and costs \$150.

Audio Tape

Maxell has retired UD-a classic Type 1 ferric, and one of those on which early high-performance decks depended to achieve high fidelity status-replacing it with two formulations that make use of more-modern technology: UDS-I (a Type 1 ferric based on what the company calls a poreless Ferricrystal particle) and UDS-II (a Type 2 epitaxial ferricobalt). UDXL-I and UDXL-II also have been upgraded somewhat and renamed XL-I and XL-II, respectively. LN ferric, XL-IS and XL-IIS premium formulations, and MX Type 4 metal remain in the line.

Sony also has revamped its entire audio cassette line, with shells having superlarge viewing windows adopted for all formulations. They range from HF and HF-S ferrics through UCX and UCX-S "high-bias" (Type 2) tapes to Metal ES (Type 4). TDK has improved the particle in its SA tape but retains the same designation for it.

BASF has reshuffled its entire line. It has two ferrics: LH Extra I, which replaces Performance I as its least expensive formulation, and the new LH Maxima I. The two Type 2 chrome tapes are Chromdioxid Extra II, which is an improved Pro II Chrome, and the new, premium Chromdioxid Maxima II. All four are available in C-60 and C-90 lengths. Metal IV remains, but it will be sold only in the C-120 length.

Video Tape

Though there has been considerable tongue-wagging over the lack of progress in establishing the new 8mm video format, TDK's announcement that it will enter the field during the first quarter of this year is a major coup for the 8mm group. Both 30- and 90-minute lengths will be available, using TDK's newly developed Super Finavinx metal alloy particle. The company has also upgraded the formulation of its Extra High Grade Beta and VHS cassettes. Last year, it added HD Pro to the top of its ½-inch videocassette lineup, in addition to HS (High Standard, available only in the very popular T-120 and L-750 lengths) as a step above its standard Super Avilyn formulation.

Maxell's premium HGX Gold has been renamed HGX Gold Hi-Fi to reflect both a formulation upgrade and the expectation that it will be in demand for ultimate quality with Beta and VHS Hi-Fi equipment. Memtek has added Memorex Pro Hi-Fi. And Konika has reformulated and repackaged its $\frac{1}{2}$ -inch video line.

Tape Accessories

Among the many companies offering cassette storage devices, Pompano has introduced a broad line called Cassetter. It comprises home cabinets, models specifically designed for various types of vehicles (including planes and boats), and sizes for both audio and video cassettes. Prices range from \$40 to \$80. Audio cassettes are held in spring clips to keep them from rattling in moving vehicles. I was dismayed, however, to discover that the company evidently expects you to forgo the dust protection of individual cassette hoxes

Denon has effectively met such designs halfway, so to speak. Its CarryClip (designed to fit its own DX-Series cassettes, though they presumably will work with other brands) snaps over the open side of the cassette and into the hub openings, preventing both the formation of tape loops and the accumulation of dust—a neat idea where space is at a premium.

Audio-Technica has introduced a revamped line of Sound Guard maintenance productseverything from the Model 50300 Stylus Cleaning System (\$2.95) to Models 50400 and 50500 (VHS and Beta, respectively) Video Cleaning Cassette Systems (\$16.95 each). GC Electronics has one of the few devices that will erase and remove dust from home videotapes, which it does while rewinding them. The Model 32-3250 is designed for VHS tapes. (Sorry, Beta owners!)

There are many new or upgraded video-head cleaners around. Discwasher's version (\$19.95 for either VHS or Beta models) uses thinner tape than most-the same 1mm thickness as videotapes-to ensure that it won't trigger the sensitive trouble sensors in some portables and shut down the transport prematurely during cleaning. Nortronics also has a new one: VCR-130 (VHS) or VCR-135 (Beta), at \$29.95. IMS, which also offers Technaclean, has added Technatest video test tapes, with signals that will help you check out color or blackand-white video gear. Beta and VHS versions each cost \$29.95.

And while we're on the subject of recorded tapes-though these have nothing to do with maintenance as such-I must mention the Holophonic recordings that Alpine will be distributing this spring. They are based on the work of Hugo Zuccarelli, who postulates that we perceive ambient space and time effects as interference between what he calls the listener's "reference silence" and the sound itself. By experimenting with various low-level noise components in digital recordings, he believes he is able to simulate (or stimulate-I don't know which word is really more appropriate) the effect, which



the brain automatically interprets in a you-are-there sense on playback. The first tapes (which I haven't heard) are said to represent a dramatic improvement over conventional stereo, particularly when they're reproduced on less-than-audiophile gear. [The descriptions we've read of the technique suggest that its effect is achieved primarily through binaural recording. which is by no means new and was not invented by Zuccarelli, whose theories on hearing are dubious at best.-Ed.]

Don't confuse these Holophonic tapes with Carver's Sonic Holography Generator, by the way. Though Bob Carver has suggested that, ideally, recordings should be made with his technique in mind—and both Carver's and Alpine's techniques, on paper at least, suggest the spatial verisimilitude of binaural recordings—they appear to have little or nothing in common except the metaphor. *Robert Long*

RECORD-PLAYING EQUIPMENT Turntables and Arms

Acoustic Research is following up on the success of its highly regarded belt-drive turntable (reintroduced last year after an absence of more than ten years) with a high-end version called the ETL-1, part of the company's Research Series of components. The basic subchassis design is unchanged, but the new unit is larger and sexier-looking, thanks to its black pianolacquer finish and contrasting 7-pound zinc-alloy platter. Bearing materials are improved, and the suspension system now uses dual concentric springs and isolating feet. A crystal-controlled 12-volt synchronous motor provides reliable start-ups, and you don't have to remove

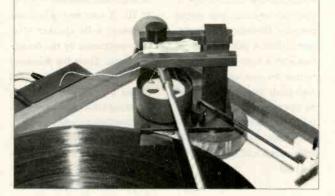
the platter to change speeds. The ETL-1 costs \$750 and is sold without a tonearm. A less expensive version of the "standard" AR turntable is also available. The EB-101 (\$295) uses a $4\frac{1}{4}$ -pound platter and comes with a static-balanced straighttube tonearm.

The Well-Tempered Lab is a company formed by William

arm is mounted on a platform that is suspended in a bath of silicone damping fluid by two lengths of nylon monofilament. The threads are twisted so that the weight of the arm tends to untwist them, providing an antiskating force whose magnitude is adjustable by a micrometer screw. (In the brochure, this mounting scheme is called a

soteric turntable technology is flourishing.

It's not inconceivable to combine the \$500 Well-Tempered Arm (bottom), which hangs from monofilament strings instead of resting on bearings, with AR's \$750 belt-drive table (top).



Firebaugh of Costa Mesa, California, to market a tonearm called, you guessed it, the Well-Tempered Arm. This novel design is said to eliminate resonances and rattles that can interfere with proper cartridge performance. The arm tube is filled with a "proprietary granulated material"—sand. And instead of riding on bearings, the "skewed bifilar convergent ligament suspension.") The Well-Tempered Arm sells for \$500; another \$350 will buy you the accompanying turntable, which is set into a sand-filled base.

The turntables on display at the Maplenoll Electronics suite looked similar to Wayne Coloney's air-bearing arm/turntable, and indeed they are. Maplenoll bought the rights to the now discontinued design and modified the arm bearing for increased reliability. The new mechanism is used in the Olympian line of turntables: the Athena (\$695), the Artemis (\$1,395), and the Apollo (\$2,695). All three use air-bearing platters and tonearms. The Apollo adds an automatic vacuum system to clamp the record to the platter.

A California company called Analog Excellence is now importing the full line of Micro Seiki turntables, including the high-end SZ-1T/SZ-1M. The turntable and the motor assembly are two entirely separate pieces, joined only by a thin drive belt. Both the 48-pound platter and the rotor of the drive motor ride on air bearings, and the same pump that supplies the compressed air also evacuates the air beneath the record. Total weight of the \$10,000 built-to-order system is 240 pounds. A smaller version-weighing in at a mere 100 pounds and equipped with an air bearing for the platter only-costs \$1,995.

At the low end of the price scale, Sherwood has four new models beginning at \$90. The top-of-the-line ST-910 (\$200) has a straight-line tracking (SLT) tonearm and front-panel controls. Scott's four new entries are capped by a \$230 model, also equipped with an SLT arm. Pioneer brings lateral tracking to all four of its new tables, which range from the programmable PL-L70 (\$240, including a lowmass P-Mount pickup) down to the 12-inch-square PL-X100 (\$130). Harman Kardon's latest is the T-30C, at \$195 the least expensive turntable in its line. Like other H/K models, the T-30C is a belt-drive design with a pivoted straight-tube arm. Dual also weighs in with a new lowend table. The \$200 Model 505-2 is equipped with a low-mass gimbal-suspension tonearm and

a pitch control with a range of ± 6 percent.

The success of Compact Disc players, most of which cost from \$300 to \$600, has had a strong impact on the market for mid-priced turntables, and consequently only a few new models were on display at the CES. Bang and Olufsen's three straight-line trackers range from \$340 to \$400. Two-the Beogram 5005 and 3000-are designed for use in the Beosystem 5000 and 3000, respectively, and can be operated with the systems' unified remote controls. B&O's TX-2 (\$340) is a stand-alone machine. The new Technics SL-MA1 (\$350) has programmable track selection, and its direct-drive motor is said to be capable of bringing the platter up to speed in less than one revolution.

Cartridges

Club deejays use an array of techniques that involve rapid starting, stopping, and momentary backward rotation of the record. Ortofon's OM Pro cartridge is made to stand up to such abuse; it has the same basic properties as the company's other OM pickups, but offers a special rugged spherical stylus and cantilever assembly. The new OM-30 Limited (\$275) is hand-selected from the top tenth of a percent of that model's production run. Denon's top moving-coil pickup, the DL-304 (\$395), is an upgraded version of the highly respected DL-303. It has a shortened, tapered cantilever coated with amorphous boron for greater rigidity. A thermally stable damping material is said to eliminate temperaturedependent response variations that afflict most cartridges. Stylus tip and coil bobbin are both smaller, and compliance is higher for a better match with lowmass arms.

line has two new moving-coil entries. The MK-440ML (\$600) is a high-end model with a Microline tip and a gold-plated beryllium cantilever; the MK-550e (\$100) has a nude elliptical stylus and a tapered cantilever. Stanton has formed a separate division to manufacture and market its new Epoch cartridges. The Epoch II Series consists of six lowmass (3.8-gram) fixed-coil models priced from \$250 (the HZ-9S) to \$95 (HZ-6E). Two are low-impedance moving-magnet designs: the LZ-9S (\$250) and LZ-8S (\$190). The top five models have sapphire-coated cantilevers that are said to provide the same strength as solid sapphire

at less cost.

Audio-Technica's Signet

Klipsch offers four new moving-coil cartridges, all made for the company in Japan. The MCZ-2 (\$215), MCZ-7 (\$325), MCZ-10 (\$375), and MCZ-110 (\$1,000) use line-contact styli and cantilevers made of aluminum alloy, boron, ruby, and diamond, respectively. And finally, to get the signal from your lowoutput moving-coil cartridge to your pre-preamp, you might consider Monster Cable's Supertail (\$35), a pair of 9-inch cables with a 5-pin DIN arm connector on one end and two high-grade female phono jacks on the other. Each cable contains two conductors within its shield, one said to be for high frequencies and the other for the bass.

E. Brad Meyer

LOUDSPEAKERS

Although the yearly business cycle leads large Japanese companies to introduce most of their new audio equipment at the Summer CES in June, American and British speaker makers introduce products all year, and they were out in force this January at the winter show.

Capitalizing on the growing appeal of small speakers to apartment dwellers, several companies chose the CES to trundle out their compact wares. ESS, for instance, incorporates the Heil tweeter in the Minimonitor, a compact system selling for \$129 each. The new small speaker from B&W is the two-way DM-100, expected to sell in this country for \$218 per pair. And designed for nearfield listening, Bose's Roommate system is now available without the integral power amplifiers as the Music Monitor for \$179 per pair. Its plastic case comes in several colors, and a water-resistant version is available for outdoor use.

Michael Wright, designer of the expensive Dayton-Wright full-range electrostatic system, introduced an all-cone two-way speaker in a compact cabinet, the LCM-1 (\$499 per pair). The speaker can also be mounted on the front of an auxiliary subwoofer module, the ICBM-1 (\$1,700 per pair), that reportedly extends bass response down to 16 Hz. A company called Just Speakers sells speaker kits, each designated by the designer's name. Their Jay Adamson CA-1 is a small two-way system selling for \$175 per pair. The matching CA-2 subwoofer modules are \$240 per pair.

Several designers attack the space problem with wallmounted speakers. The 16-inchsquare LS-60B (\$150 each) from Topper has a flat front that can serve as a mounting surface for a poster or photo. (The company also makes a system disguised as a small planter.) The cabinet of B&O's RL-60 (about \$500 per pair) is a tapered convex molding of ribbed plastic. This interestingly shaped speaker can be wall-mounted, or it can sit on the floor with the aid of a foldout brace or optional stands.

Sawafuji applies its pleated-diaphragm technology (dubbed Dynapleat) to several new models this spring, including a wallmounted speaker, the Mini-Frame (\$300 per pair). And Duntech, whose wall-mounted PCL-3 drew some favorable comments at last summer's CES, is now offering the PCL-5, a vertically mounted wall speaker with handsome beveled wood edges. The new system has two bass drivers instead of one, higher sensitivity (by 7 dB), and a higher price (\$1,675 per pair vs. \$850).

Notwithstanding picture frames and planter boxes, the prize for the most unusual looking speaker on display at the CES goes to the Omni-Sphere MDF from Wolcott Audio Research. A gently tapered woofer enclosure is topped by four bass/midrange drivers mounted on the sides of a shallow pyramid. Atop the bass enclosure is a glass globe, over which hovers a flying-saucerlike module containing a downward-firing dome tweeter. The glass globe doubles as a light fixture-and there's even a dimmer. The projected system price, depending on cabinet finish, is \$2,200 to \$2,400 per pair.

The increasing quality of video sound, whether from Hi-Fi VCRs, Laserdiscs, or upcoming stereo TV broadcasts, continues to accelerate the demand for video loudspeakers. Because space near the TV set is often at a premium, such speakers must be small. And if they are to go right next to the picture tube, the external magnetic fields they create must be controlled to prevent color smearing. Accordingly, most video speakers are shielded, which usually means that they contain an additional magnet assembly to reduce the external field.

A few quick checks with a pocket magnetometer revealed

that all systems being promoted as video speakers were properly shielded. Interestingly, one manufacturer (JBL) has declared the problem of external fields to be a nonissue, saying (correctly, in my view) that any speaker can be used to reproduce television sound if it is kept more than a foot away from the monitor.

Power amplifiers in TV receivers are modest, so many of the new video speakers are internally powered. Infinity's VM-1, whose cabinet height is adjustable to match any 19- to 25-inch monitor, uses an Emit tweeter and contains a 60-watt power amp. Also included are tone controls, stereo-synthesis and image-enhancement circuits, and a dynamic bass equalizer to prevent overload. NAD, an audio company that is broadening its line to include video products, will also be offering a powered video speaker, the PS-1 (\$248 per pair). In its current form, the Baby Advent speaker (\$200 per pair) is not shielded. but both shielded and internally powered versions will be ready soon. A new company called Alta also has speakers intended for video sound, though none of its models are designed to sit on the table alongside the TV set. Instead, the company has cooked up tall cylindrical enclosures less than a foot in diameter that take up a minimum of floor space.

Not all the action at CES was in small speakers, however. The \$725 Clements Audio Systems RT-7 uses a 7-inch ribbon driver crossed over at 1.9 kHz (24 dB/octave) to a single 8-inch woofer. The company also showed the larger RT-21 (\$1,200) and a miniature speaker with a ribbon tweeter, the Little D (\$595 per pair). Genesis has two new two-way passive-radiator systems: The Model 33 costs \$500 per pair; the Model 22, \$375. Speakerlab's Digital Audio Series ranges from the \$99 DAS-2 to the \$900 DAS-8. The latter is a three-way system with two midrange drivers and two woofers.

Klipsch's latest is the KG-4, a two-way vented system with a passive radiator and a hornloaded tweeter (\$520 per pair). Ohm Acoustics has a new modSaras, a California company now expanding to national distribution, has six speaker models ranging in price from \$550 to \$1,500 per pair. The speakers have an LED that lights at potentially damaging power input levels, though there is no protective circuitry to limit the input to the speakers. Acoustic Research replaces



el, the Walsh 3 (\$1,100 per pair). Smaller than the Walsh 4, the new speaker is said to have its big brother's bass response but not quite as much overall output. Rich Acoustics' new Monitor Serie's ranges from the \$160 3B to the \$550 three-way 9B and includes a large subwoofer with four 10-inch drivers (the B-4, \$1,200). its old line with the 8BX, 18BX, and 28BX (\$100, \$130, and \$195 each, respectively). The new models have ferrofluid-filled 1inch dome tweeters and highly damped woofer cones. AR is also introducing three Connoisseur Series speakers, the Model 19 (\$125), Model 20 (\$160), and Model 30 (\$230). A pedestal-type speaker stand designed to support a Model 19 or 20 costs \$50 a side.

Several interesting new high-end designs will also make their debut this spring. The Audire Image 1 (\$11,250 per pair) is a large flat-panel speaker with nine full-range ribbon elements per side. The system is quite smooth but extremely directional. A new electrostatic prototype, dubbed the XStatic, achieves wider dispersion with a smoothly curved panel. Heard in conjunction with the new sixdriver Entec subwoofer (\$10,800 per side), the XStatic's performance was impressive. At \$1,700 each, the latest version of Brian Cheney's 14-driver VMPS Tower was probably the least expensive of the new high-end models on display. Cheney played a world-class drum demo tape at his booth to prove that the new version had what it takes. Two smaller VMPS models are also available, the Super Tower/R (\$969 each) and the Tower II (\$599 each).

Rounding out this coverage, I finally had time at Winter CES to audition the \$42,000 Wilson Audio Modular Monitor (WAMM), a speaker that has become legendary for both its price and its performance. Each side has two tweeter modules with two drivers apiece, a nineelement Janszen electrostatic midrange array, and a woofer module with two KEF oval flat drivers, all suspended on an elaborate adjustable stand. Two vented subwoofers with a 20-Hz resonant frequency sit against the back wall. The bandwidth and imaging of this system, which I auditioned with my own master tapes, are truly astounding. [If you buy a WAMM, designer Dave Wilson arrives at your door with the boxes to set up the system and balance the sound. So make sure to have refreshments on hand.-Ed.]

E. Brad Meyer

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Report preparation supervised by Michael Riggs, Peter Dobbin, Robert Long, and Edward J. Foster. Laboratory data (unless otherwise indicated) is supplied by Diversified Science Laboratories. Dimensions: 17 1/4 by 3 1/4 inches (front), 13 3/4 inches deep plus clearance for connections. Price: \$995; optional rosewood side panels, \$50 per pair. Warranty: "limited," three years parts and labor, transferable. Manufacturer: Tandberg A/S, Norway; U.S. distributor: Tandberg of America, Inc., Labriola Court, Box 58, Armonk, N.Y. 10504.

Although it does directly replace the TPA-3003A (itself not all that old), Tandberg's TPA-3006A power amp represents more than the usual update-and-renumber approach to product design. The Norwegian company's engineers have developed a new circuit configuration that is said to maximize the potential of MOS FET output devices while eliminating what they see as the deficiencies of conventional methods, particularly the usual heavy reliance on negative feedback.

Feedback serves several functions in an amplifier. The main one is distortion reduction, but it also extends the frequency response, increases the damping factor, and permits the use of wider component tolerances in production—all powerful incentives to the designer. Feedback's dark side is that it must be applied carefully if the amplifier is to remain stable into all likely loudspeaker loads. But there are fairly straightforward, routinely applied solutions to this difficulty, such as rolling off the feedback at high frequencies and put-

RICHARD CHESTNUT

ting an isolation coil at the amplifier's output.

Unfortunately, these cures also tend to increase distortion and reduce damping factor at high frequencies, and if care is not taken in the design, they may make the amplifier's frequency response sensitive to loudspeaker impedance characteristics. Going beyond these considerations, Tandberg feels that feedback creates subtle, but nonetheless audible, distortions even as it is cleaning up the obvious ones. Thus, the hardest problem in designing the TPA-3006A was to obtain all the characteristics desirable in a high fidelity amplifier, including low distortion, without resorting to the most powerful engineering tool available for the purpose.

To do this, the designers used an inherently low-distortion circuit, constructed with carefully selected and matched components. These include expensive polystyrene and polypropylene capacitors, metal-film resistors, and MOS-FET output transistors. The MOS FETs are fed by a special high-current driver stage and are linearized by what Tandberg calls a voltage-comparator circuit, which uses feedforward to cancel distortion. The resulting design operates without feedback and without a stabilizing coil at the output.

Less radical, but more certainly valuable, is the TPA-3006A's use of a high-current output stage and power supply, providing the reserves necessary to handle difficult loudspeaker loads. Dominating the middle of the chassis is a large toroidal transformer feeding more than 30,000 microfarads (μ F) of filter capacitance. To each side is a row of four MOS FETs, mounted on massive chimney-style

heat sinks.

One of the main advantages of MOS FFTs as nower devices is that they do not exhibit the self-destructive thermal runaway to which bipolar transistors are prone when taxed beyond their current limits. This eliminates the need for voltage-clamp protection circuits, which can cause premature clipping and other sorts of misbehavior. MOS FETs can still overheat, however, so besides the large aluminum sinks, Tandberg provides logic circuitry that disconnects the output from the load if there is a short circuit or the amplifier becomes too hot. Another circuit maintains zero DC offset at the output terminals.

The TPA-3006A's elegant physical design matches that of other Tandberg electronics, and attractive rosewood end panels are available as an option. The black front panel's only features are a pushbutton power switch, a red pilot LED, and small, red clipping indicators for each channel (the only really useful type of power indicator, in our view). On the back panel is a power-supply switch for selecting between 110- and 220volt line current (50 or 60 Hz), pinjack inputs, and color-coded output binding posts. Despite their appearance, the output terminals do not accept banana plugs-only spade lugs or bared wire. We were pleased

to note that the holes in the posts are vertically aligned, making the latter option more convenient than often is the case. The inputs and outputs are quite close together, however, making connections rather cramped.

Diversified Science Laboratories confirmed Tandberg's claim of high current capability. The TPA-3006A delivered a full dB over its continuous-power spec into 8 ohms and a half dB over spec into 4 ohms. And on the dynamic power test, which more nearly approximates the demands of music reproduction, it pumped out an impressive 225 watts into 8 ohms, 315 watts into 4 ohms, and 375 watts into 2 ohms. The lab did have some difficulty making the 4-ohm continuous and 2-ohm dynamic power measurements, apparently because the amplifier tends to run very warm even at idle. When pushed too long at high power, it would shut itself down. This should not be a problem in normal use, however (and was not in our listening tests). The amp can be bridged for mono operation with a rated output of 410 watts (26 dBW) into 8 ohms, but we did not test it in this configuration.

Also impressive is the TPA-3006A's low distortion, especially for an amplifier that uses no feedback. Bandwidth is extremely wide, with the 3-dB-down point occurring be-

0 R Ŧ P 0 L С R E Equipment reports are based on laboratory measurements and controlled listening tests. Unless otherwise noted, test data and measurements are obtained by Diversified Science Laboratories. The choice of equipment to be tested rests with the editors of HIGH FIDELITY. Samples normally are supplied on loan from the manufacturer. Manufacturers are not permitted to read reports in advance of publication, and no report or portion thereof may be reproduced for any purpose or in any form without written permission of the publisher. All reports should be construed as applying to the specific samples tested. HIGH FIDELITY and Oiversified Science Laboratories assume no responsibility for product performance or quality.

RATED POWER

8-ohm load	21 3/4 dBW (15) watts)/channel
4-ohm load	23 3/4 dBW (23	5 watts)/channel
OUTPUT AT CLIPPING (at	1 kHz; both chan	nels driven)
8-ohm load	22 3/4 dBW (19) watts)/channel
4-ohm load	24 1/4 dBW (26	5 watts)/channel
DYNAMIC POWER (at 1 k	Hz)	
8-ohm load		23 1/2 dBW
4-ohm load		25 dBW
2-ohm load		25 3/4 dBV9
OYNAMIC HEADROOM	re rated power)	
8-ohm load		+ 1 3/4 dB
4-ohm load		+1 1/4 dB
HARMONIC DISTORTION	(THD; 20 Hz to 2	(0 kHz)
at 21 3/4 dBW (150 watts)	≤ 0.047%
at 0 dBW (1 watt)		< 0.01%
FREQUENCY RESPONSE		
	+ 0, - 1/4 dB,	< 10 Hz to 98 kH
	+ 0, -3 dB, <	10 Hz to 525 kHz
S/N RATIO (re 0 dBW; A		93 dB

,,	TO THE TO OLO MIL	
S/N RATIO (re 0 dBW; A-weighted)	93 dB	
SENSITIVITY (re 0 dBW)	98 mV	
INPUT IMPEDANCE	110k ohms	
DAMPING FACTOR (at 50 Hz; re 8 ohms)	250	
CHANNEL SEPARATION (at 1 kHz)	92 dB	



The Complete Computer

Here's a 50 character per second, plain paper, dot matrix printer that you can use with virtually any home or office personal computer. It's built really tough to withstand heavy use. It's really easy to use. And, it even prints graphics. **Price Slashed to \$129.**

By Drew Kaplan

Complete your computer. Now you can harness the full power of your computer. From writing letters to listing programs, your computer will be incredibly more useful.

It uses plain paper and it's super reliable. It prints both upper and lower case characters. And, if you aren't using a printer with your computer, read on.

LISTING/INDEXES/LETTERS AND MORE

Experience the thrill of actually writing your letters and reports on your computer. Now you'll be able to use all of your computer's word processing and correcting capabilities to really explore your creative talents.

It's easy. Some of the new word processing programs are so 'user friendly' that you can learn to use them in just about 10 minutes. Change a line, change a word, move a line. Just push a button.

Are data bases a four letter word? Not on your life. Now you can use your computer to organize all your telephone numbers, your stocks, stamps, and recipes.

If you're using your computer for business, you can have a complete, instantly accessible file for each customer by name, what they bought, when, etc.

A data base will let you find or organize and print out any information you want, however you want, whenever you want. There's no more complicated programming required. And, inexpensive data base programs are available at any computer store.

PERMANENT RECORD

If you have a modem, you're in for a treat. You can access encyclopedias, stock market reports, and much more. When you sign on a service like Com puServe or The Source, the world is quite literally at your finger tips.

With a printer, you can get a 'hard copy' of all the incoming information. You can get everything from SAT test simulations and IQ tests to loan amortization schedules.

AFRAID OF PROGRAMMING?

You don't need to know the first thing about programming to use this or any printer. But, if you've never typed in and run a program, here's the easiest one I know. Turn on your computer.

Commodore Owners, and Atari Owners, your computer, and most others will say 'Ready'. Just push Control and Reset on an Apple. Then type the following: 10 PRINT "DAK IS WONDERFUL" 20 GOTO 10 RUN

You should type a carriage return at the end of each line. Why not try this program now? Next time, I'll tell you how to get out of the program, and maybe even discuss peeks and pokes. If the program isn't running, type LPRINT instead of PRINT in line 10.

To you sophisticated programmers, think how easy your life will be when you can print out program lists that you can study at length.

And, you won't have to load a bunch of disks to find a program when you print out a menu for each of your disks.

LOOK AT ALL IT DOES

An ad in several August computer magazines listed a \$149 thermal printer (that needs expensive thermal paper) as the lowest priced printer in the U.S.

Imagine a 50 character per second, plain paper, full 80 column dot, matrix printer with a built-in standard Centronics Parallel Interface, slashed to just \$129.

This printer handles plain old cheap standard fanfold pin feed computer paper from 4.5" to 9.5" wide, with it's built-in adjustable tractor pin feed drive.

It's so powerful you can even use twopart forms for a carbon copy. Plus, there's an impact control for print darkness.

It understands and prints 116 upper and lower case characters, numerals and symbols. And that's not all.

You can even print Double Width characters. And, look at this. This printer has full graphic capabilities with 480 dot horizontal resolution and 63 dot per inch vertical resolution. So, you can print out your pictures, pie charts or graphs. It prints 10 characters to the inch, six lines to the inch. In short, it's going to make typewriters into dinosaurs. When hooked to your computer, you'll never have to retype anything again. If you find an error, just make the correction and let the computer retype your work for you.

The printer is made by C.ITOH/Leading Edge in Japan. It's built to really take heavy use. But in the unlikely event that it should need service, there are approximately 400 service centers nation wide.

It takes standard long life inked ribbon cassettes that are readily available nation-wide. This is a printer that will give you many years of continuous reliable service and enjoyment.

AND NOW THE BAD NEWS

If you're the president of a large company sending important business letters, you may want a \$1000 daisy wheel printer. But for most uses, dot matrix printers are incredibly faster, and there isn't any way to print out a graph or picture on a daisy wheel printer.

But, there are two things you need to know about this printer. First, it has about the dumbest name I've ever seen. It's built tough and rugged. So, they named it The Gorilla Banana Printer.

Second, like many dot matrix printers, the letters g, j, p, q, and y are level with the other letters. Each letter is completely and perfectly formed, but each sits level with the rest of the alphabet.

Upper case letters and symbols are unaffected. So, if you don't want letters that look like they were printed by a computer, this printer isn't for you.

But for most letters, term papers or reports, programming and all the data bases and information you'll get through a modem, this printer is perfect.

COMPATIBLE COMPUTERS

Any Computer with a standard Centronics parallel port, such as: Apple, Franklin, IBM PC, TRS80, Osborn, Atari, Commodore VIC 20, Commodore 64, Kaypro, and virtually any other personal computer. Plus, most briefcase portables. FEAR OF INTERFACES?

Your computer is smart. But, it doesn't know how to 'talk' to other devices. That's why you need an interface.

An interface isn't just a cable. It's actually an intelligent translator that lets your computer talk to other equipment.

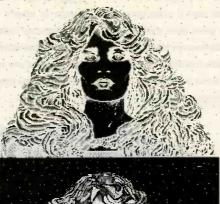
Usually the computer manufacturers don't include the various interfaces when you buy your computer, because they don't know if you'll ever add peripherals such as disk drives, printers or modems.

So, rather than sell you something you don't need, you don't buy an interface untill you add onto your computer.

There are two types of printer interfaces. The first allows you to do text word processing. For 99% of computer use, this is all that is needed. It translates all the possible letters and punctuation known as ASCII. This printer understands 116 characters and symbols.

A second type of interface also allows you to dump pictures or graphics from your screen or memory. This is more complicated because every dot must be told where to go. This interface, or 'driver program' as it is called, is available in two forms; built into an interface card, or as a program on a disk which you use in conjunction with any standard interface.

Either way, you'll have the printer operating in just a few minutes. And if you already have a printer, the same Centronics parallel interface and cable (about 85% of all printers are compatible) should work with this printer.





With this printer you can alter your graphics as you desire. You can print normal or reversed (both shown above, reduced to fit in this catalog) and you can even print double size.

WHY SO CHEAP

A new model will emerge soon with a different name. Leading Edge had just 28,000 of these remarkable printers which have been selling at discount for as little as \$199, left in stock.

DAK bought them all for cold hard cash. And now we're offering them to you for less than the original price we were quoted as wholesale.

The printer is approximately 16½" wide, 9" deep and 7" tall. It's backed by Leading Edge's standard limited warranty.

ADD PRINTING POWER TO

YOUR COMPUTER RISK FREE Now you can really make use of your computer. 50 characters per second printing on plain paper for just \$129. Wow!

Now you can print out your programs, your notes or your letters. If you're not 100% satisfied, simply return the printer and any accessories in their original boxes to DAK within 30 days for a refund.

To order your 50 Character Per Second Dot Matrix, Plain Paper Printer with a built-in Centronics Parallel Interface, risk free with your credit card, call toll free, or send your check for the breakthrough close-out price of just **\$129** plus **\$8** for postage and handling to DAK. Order No. 4101. CA res add 6% sales tax.

Special Note: If you need a serial printer for a computer, such as the TRS80 Color Computer, order the identical printer with a built-in Serial Interface for the same price. Use Order No. 4102.

The Printer comes packaged with a long life ribbon. Extra ribbons are available at computer stores. DAK has them for \$4 each (\$1 P&H) Order No. 4103.

Standard Centronics Interfaces for your computer are available at any computer store. This Printer has its receiving inter-

face built in. You simply need one, complete with its cable, to plug into your computer 'to send' information. Below are our favorites for 5 of the most popular computers.

For your Apple. We have Practical Peripherals' text interface for just \$49 (\$2 P&H) Order No. 9877. We have their graphics capable interface for just \$79 (\$2 P&H) Order No. 4104. If you already have a Centronics Parallel Interface, we have a graphics driver program on disk for just \$7 (\$1 P&H) Order No. 4105.

For your IBM PC, you don't need an interface. It's usually already built-in. But, you do need a cable. We have a cable, ready to connect this printer to your computer, for just **\$19** (**\$2** P&H) Order No. 9879. We have a graphics driver program on disk for just **\$7** (**\$1** P&H) Order No. 4106.

For your Atari 800, 800XL, 400, or 600XL, we have a text interface for just **\$69** (\$2 P&H) Order No. 9881. We have a graphics driver program on disk for just **\$7** (\$1 P&H) Order No. 4107.

For your Commodore VIC 20 or 64, we have a text interface for just \$39 (\$2 P&H) Order No. 9883. We have a Graphics Interface for just \$54 (\$2 P&H) Order No. 4108.

Special Bonus for Commodore 64 owners. We have a powerful word processing program with editing, including changing a line, a word, or moving a line. Once you've tried computer word processing, you'll never want to look at a typewriter again.

Plus, we have a super data base program that lets you use 8 fields of information on up to 200 subjects at a time. Then you can search for any part, sort alphabetically or numerically and print out an address book, a list of your stocks or anything you can imagine. They're both yours for just **\$5** (\$1 P&H) with purchase of the printer. Use Order No. 4122 for Disk, or Order No. 4123 for Cassette.

For most TRS 80 Computers, you don't need an interface, just a cable. For the Black and White Computers, we have a Parallel Cable for just \$18 (\$2 P&H) Order No. 9885. For the Color Computers we have a Serial Cable (you need the Serial Printer as well) for just \$18 (\$2 P&H) Order No. 4109.

For briefcase-type portables, the Centronics Interface is usually built-in. Just stop by any computer store. All Centronics Printers use the same cable at the printer end, but you'll need a cable that fits your particular computer's plug.

Get hard copy print-outs of your programs or your graphics. Turn your computer into a powerful word processor. Forget retyping ever again. For just \$129 you can make your computer complete.

Apple, Atari, IBM PC, Franklin, Commodore VIC 20 & 64, TRS80, Osborn, and Kaypro, are regestered trademarks of Apple computer, Atari Inc., International Business Machine Corp., Franklin Computer, Commodore Electronics Ltd., Radio Shack/Tandy, Osborn Corp. and Kapro respectively.



yond half a megahertz (MHz). Tandberg says that the back of the amplifier circuit board is copper-plated to form a ground-plane shield against RFI (radio-frequency interference) a good idea in an amp that's still going strong almost to the bottom of the amp's ability to drive loads that drop to very low impedances at high frequencies (a category that includes most electrostatic loudspeakers). The other measurements are uniformly excellent. Noise is very low, separation is much more than adequate, and the pletely neutral amplifier, adding no sonic imprint to the signals passing through it. We also find that it clips very gracefully—something that cannot be said of some otherwise fine models. This, together with its handsome design, superb construction,



AM radio band.

The TPA-3006A's damping factor is unusually high at low frequencies and is down only about 50 percent at 20 kHz, which is exceptionally good. This should enhance the input impedance is gratifyingly high. Our only caveat is that you should make sure the amplifier is kept well ventilated.

As one would expect from the lab data, the TPA-3006A is a com-

high power output, and ability to drive difficult loads, all at a quite reasonable price relative to the competition, makes the TPA-3006A a notably attractive amplifier in today's audiophile market.

REVOX B-285 RECEIVER

Main features: digital frequency-synthesis AM/FM tuner section with 29 station presets, frequency or alphanumeric station-ID display, LCD function display, individual sensitivity adjustments for each input, phono input capacitance adjustment, remote-control capability, and timer/computer interface port. Dimensions: 17 3/4 by 6 inches (front panel), 13 1/4 inches deep plus clearance for connections. Price: \$1,600; optional B-205 wireless remote control, \$125. Warranty: "limited," two years parts and labor. Manufacturer: Willi Studer AG, Switzerland; U.S. distributor: Revox Div., Studer Revox America, Inc., 1425 Elm Hill Pike, Nashville, Tenn. 37210.

nevox, whose products certainly aren't characterized by technological timidity, has come out with a whole line of components that are computerlike or even potentially computerinterfaceable in their control approach. The concept is not entirely new, but no other brand's line has yet been as thoroughgoing in applying the principle. The results are excitingly innovative, as witness the B-285 receiver.

Most of its front panel is covered with buttons of various sizes, shapes, and colors. Their throw is so short that they feel more like pressure-sensitive panels than conventional in / out pushbuttons—and with good reason. Most of them are digital flip-flops whose settings may be reversed automatically by some change elsewhere, either at the front panel itself or at the optional wireless remote control. Thus, it would make no sense for them to retain "in" or "out" positions.

Let's say, for example, that you've tuned to an AM station and you call up station Preset 17 (out of

the 29 available), which happens to be programmed for an FM station. Not only will this override your previous selection of the AM band, but it may also reverse the existing settings of the interstation-muting, mode (mono or stereo), and high-blend switches, all of whose preferred positions for the station are memorized along with its frequency. Sometimes the receiver's logic will prevent switch activation when you push a button. Let's say you've chosen Tape 2 as the source and are dubbing to Tape 1 but, by mistake, press the monitor for Tape 2 instead of Tape 1. Since you're already listening to Tape 2 (the source), nothing happens: The B-285's logic picks up the error and prevents it.

Like the B-252 preamp (test report, December 1984), the 285 enables you to adjust the sensitivity of each input individually. You also can set maximum allowable volume and the power-on volume, so that you

don't get blasted out of your chair even if you were running the amp wide open at the last sitting. For the latter, you have two options. You can adjust the VOLUME's up and down buttons for the level you want, then press VOLUME TOP and switch the receiver off. Or, with the receiver in STANDBY (to permit turn-on from the remote control, it doesn't turn all the way off unless you remove the power plug), you can press either volume button to awaken the volume indicator in the central LCD (liquid-crystal display) panel, which shows what the last setting was in dB below full output. If it looks too high (or low), you can tap the volume buttons to adjust it before firing up the receiver.

Along the top and bottom of the LCD panel are on/off indicators for the switching options: Tape Monitors 1 and 2, Speakers A and B, the mono mode, the FM high-blend, the phono preamp's infrasonic filter, loudness compensation, and a 20-dB output attenuation. In the lower left is a tuner signal-strength "meter," with indicators for muting-off and stereo reception just above it. To its right are graphic displays for the bass and treble control settings. When the loudness compensation is turned on-which defeats the tone controls, if they have been engaged, and is defeated in turn if you press TONE once again-the words "treble" and "bass" disappear, but the adjustment scales remain and show you how much bass boost the LOUDNESS action is providing at your chosen volume setting

At the ends of the display panel are two two-element indicators. The one at the left (the tuner side of the front panel) shows whether a station is correctly center-tuned; if it isn't, one of the elements disappears. The indicator on the right (amplifier) side of the LCD is for channel balance. (It tells you when the balance is adjusted away from the center—which turns on both elements—but not by how much.) Above these are, respectively, a readout of the preset number or tuning mode and a band indicator (AM or FM), and the volume indicator plus "kHz" or "MHz" when either is needed to complete a frequency readout in the center portion of the display.

This is the most fascinating part of the panel because it can be programmed to display (instead of the station frequency) any four-character alphanumeric designation you choose. You can put in call letters; you can call station "ROCK." another one "NEWS," another "24HR" or even "BLAH," if this helps you keep them straight: you can use abbreviations for their respective locations; whatever. If you get too fanciful, you can always push DISPLAY, and the frequencies will reappear

There are three tuning modes: the presets (including a stepper that scans all the programmed options), bidirectional seek, and manual which goes in tiny increments, so that you can deliberately detune stations, if necessary, for best reception. On the FM band, tuning proceeds in eight steps per channel (evidently 25 kHz at a time, although the display drops the final five or zero); AM tuning is in ten 1-kHz increments per channel.

The VOLUME has two "speeds" in each direction: 1 dB per tap on the inner edges of the two buttons, 3 dB per tap on the outer edges. Diversified Science Laboratories found that the actual volume steps closely approximate the nominal 1-dB increments in the top 10 dB of the adjustment range but grow a little larger at lower levels. But the control then starts missing a beat every third step (giving the same level for two successive steps), so that all the nominal settings are within a fraction of a dB of the actual volume attenuation down to -40 dB (as far as the lab carried the test)---a remarkable achievement.

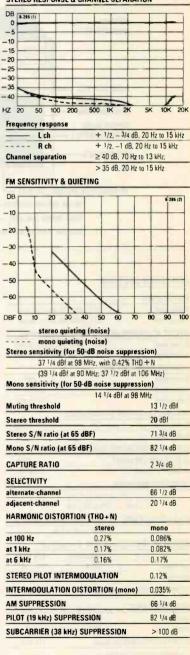
The loudness compensation follows current theory in that it affects only the bass response, adding a peak centered on about 40 Hz. At 12 dB below full output, the emphasis amounts to 3 dB; it continues to increase at lower volume settings, reaching +13 dB at 42 dB below full output. We like the effect. If you don't, you can't doctor it with the tone controls, which cannot be engaged at the same time as the LOUONESS. The BASS also has its maximum effect (some 13 dB of boost or cut at the extreme settings) at about 40 Hz; the TREBLE's greatest effect ($\pm 91/2$ dB) falls at about 15 kHz. The controls have beautiful actions, exerting virtually no influence on each other's side of 1 kHz.

The phono section (which can be ordered with a head amp for movingcoil cartridges) follows European practice in imposing a mild low-frequency rolloff, beginning at about 100 Hz and reaching -1 dB at 40 Hz. This attenuates warp-induced signals somewhat, but the switchable infrasonic filter, which almost triples the attenuation at 5 Hz, may be needed to tame severe problems. It, too, affects only the phono response and is so effective that we wonder why Revox didn't simply use it instead of the gentler fixed rolloff. The back-panel capacitance switch for matching fixed-coil cartridges offers nominal settings of 50, 150, and 450 picofarads (pF), which are very close to the values DSL actually measured.

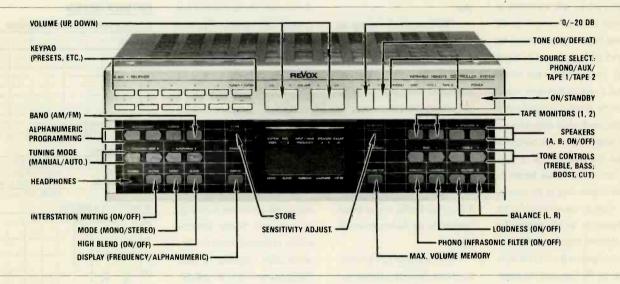
The sensitivity adjustments (which can be set individually, not only for each source, but also for each station preset, in case broadcasters in your area vary dramatically in modulation practices) necessarily influence S/N (signal-to-noise) ratios: More gain means more noise. All are set 12 dB below their maxima—approximately midway in the adjustment range—when the receiver comes from the factory. This delivers reasonable levels from typical sources, and DSL made all of its standard measurements with this setting.

FM TUNER SECTION

STEREO RESPONSE & CHANNEL SEPARATION



In round numbers, sensitivity varied by a factor of four to five in each direction when the lab tried the maximum and minimum settings, with more-than-satisfactory results. The minimum-gain position improved the phono S/N by 13/4 dB, that for the ly don't get listenably on anything but a good car radio or a multiband receiver. FM is very quiet, and sensitivity is about par for a top-notch receiver. Surprisingly, the capture ratio is just so-so—the only disappointing note anywhere in the lab data and one that balun transformer to 75 ohms, are supplied with the receiver. The FM antenna input resembles an unthreaded male F connector. (A regular female F jack would be preferable, to match standard U.S. RF-connector practice.) Revox provides an adapter



AMPLIFIER SECTION

RATED POWER

8-ohm load	18 1/2 dBW (70	watts)/channel
4-ohm load	19 ¹ /2 dBW (90	watts)/channel
OUTPUT AT CLIPPING (at	t 1 kHz; both chan	nels driven)
8-ohm load	20 1/4 dBW (105	watts)/channel
4-ohm load	21 1/2 dBW (140) watts)/channe
DYNAMIC POWER (at 1 k	(Hz)	
8-ohm load		22 dBW
4-ohm load		24 dBW
2-ohm load		20 1/4 dBW
DYNAMIC HEADROOM (re rated power}	
8-ohm load		+ 3 1/2 dB
4-ohm load		+ 4 1/2 dB
HARMONIC DISTORTION	(THD; 20 Hz to 2	0 kHz)
at 18 1/2 dBW (70 watts)		≤ 0.038%
at 0 dBW (1 watt)		< 0.01%
FREQUENCY RESPONSE		
+ 0 1/4 dB. 1	3 Hz to 25.1 kHz;	
+0, -3 dB. <	10 Hz to 99.4 kHz	
RIAA EQUALIZATION	+ 0, -3 dB, 21	Hz to 20 kHz;
	-14 1/2 dB at 5	H7
	~14 1/2 UD at 0	
SENSITIVITY & NOISE (r		-
SENSITIVITY & NOISE (I		nting)*
SENSITIVITY & NOISE (r aux input	e 0 dBW; A-weigl	nting)*
	e 0 dBW; A-weig sensitivity	nting)* S/N ratio
aux input	e O dBW; A-weig sensitivity 150 mV 1.45 mV	nting)* S/N ratio 91 1/2 dB
aux input phono input PHONO OVERLOAD (1-kł	e O dBW; A-weig sensitivity 150 mV 1.45 mV	nting)* S/N ratio 91 1/2 dB 79 3/4 dB
aux input phono input PHONO OVERLOAD (1-k) INPUT IMPEDANCE	re O dBW; A-weigt sensitivity 150 mV 1.45 mV 12 clipping)	nting)* S/N ratio 91 1/2 dB 79 3/4 dB
aux input phono input PHONO OVERLOAD (1-kł INPUT IMPEDANCE aux input	re O dBW; A-weigl sensitivity 150 mV 1.45 mV 4z clipping) 44.9k ohms	nting)* S/N ratio 91 1/2 dB 79 3/4 dB 210 mV
aux input phono input PHONO OVERLOAD (1-k) INPUT IMPEDANCE aux input phono input	re O dBW; A-weigl sensitivity 150 mV 1.45 mV tz clipping) 44.9k.ohms 48.2k.ohms; 70/	nting)* S/N ratio 91 1/2 dB 79 3/4 dB 210 mV 1170/440 pF
aux input phono input PHONO OVERLOAD (1-k) INPUT IMPEDANCE aux input phono input OUTPUT IMPEDANCE (to	re O dBW; A-weigl sensitivity 150 mV 1.45 mV 4z clipping) 44.9k ohms 48.2k ohms: 70 / o tape)	nting)* S/N ratio 91 1/2 dB 79 3/4 dB 210 mV '170/440 pF 725 ohms
aux input phono input PHONO OVERLOAD (1-k) INPUT IMPEDANCE aux input phono input	re O dBW; A-weigl sensitivity 150 mV 1.45 mV 4z clipping) 44.9k ohms 48.2k ohms: 70 / o tape)	nting)* S/N ratio 91 1/2 dB 79 3/4 dB 210 mV 1170/440 pF
aux input phono input PHONO OVERLOAD (1-k) INPUT IMPEDANCE aux input phono input OUTPUT IMPEDANCE (to	re 0 dBW; A-weigl sensitivity 150 mV 1.45 mV 4z clipping) 44.9k ohms 48.2k ohms 70 tape) 0 Hz)	nting)* S/N ratio 91 1/2 dB 79 3/4 dB 210 mV '170/440 pF 725 ohms

Values depend on adjustment of the sensitivity control, which was at the factory setting (-12 dB) for the measurements shown here; see fext.

aux input (actually labeled for a CD player) by 31/2 dB. The maximum settings cut the ratios to 67 and 85 dB, respectively, which isn't generous but should be adequate under most circumstances—if you happen to need the extra 12 dB of gain.

The amplifier section is rated for 4- as well as 8-ohm loads and handily exceeds both specs. Dynamic headroom is outstanding (although somewhat exaggerated by Revox's conservative continuous power rating), bringing the effective power on musical signals to the equivalent of 160 watts per side into 8 ohms and 250 watts into 4 ohms-very impressive for a receiver. Dynamic power into 2 ohms is considerably less (no doubt because of current limiting to protect the amp) but still, at the equivalent of 105 watts, more than most receivers can deliver into any load. Distortion is too low to be of any concern.

If the amplifier section is outstanding, the tuner is superb. Though we don't measure AM performance, the Revox brings in stations we usualmay be of little significance, depending on the reception conditions.

An AM loop antenna and a "floppy" FM dipole, made out of 300-ohm twinlead and including a that will accept bared coax or, via a built-in balun, twinlead. If you get FM signals from a cable system, you'll either have to remove the F connector (over the cable company's objections)

ABOUT THE dBW

We currently are expressing power in terms of dBW---meaning power in dB with a reference (0 dBW) of 1 watt. The conversion table will enable you to use the advantages of dBW in comparing these products to others for which you have no dBW figures.

WATTS	dBW	WATTS	dBW
1.0	0	32	15
1.25	1	40	16
1.6	2	50	17
2.0	3	63	18
2.5	4	80	19
3.2	5	100	20
4.0	6	125	21
5.0	7	160	22
6.3	8	200	23
8.0	9	250	24
10.0	10	320	25
12.5	11	400	26
16.0	12	500	27
20.0	13	630	28
25.0	14	800	29

or go through a balun to 300 ohms and back via the adapter's balun.

There-are no accessory AC outlets on the B-285, and it is not designed to be turned off altogether for long periods (as most timers will do), though it does have memory backup to see it through power outages. If you want to make automatically timed recordings with the B-285, a six-pin back-panel socket will accept a "serial link," as Revox calls it, to run the receiver from the company's B-203 timer (available as an extra-cost option).

SONY CDP-302 Compact disc Player

Main features: music seek by track and index numbers, high-speed audible search, random access by track and index numbers, sequence programming by track and index numbers, repeat (program, disc, track, or any continuous segment), switch-selectable elapsed- and remaining-time displays, back-panel subcode output port, wireless remote control, and digital output filters, Dimensions: 17 by 3 1/4 inches (front), 13 inches deep plus clearance for connections. AC convenience outlets: one unswitched (100 watts max.). Price: \$550. Warranty: "limited," one year parts and labor, Manufacturer: Sony Corp., Japan; U.S. distributor: Sony Corporation of America, Sony Dr., Park Ridge, N.J. 07656.

Something old, something new, something borrowed, something blue—a good description of Sony's CDP-302 Compact Disc player. Its designers have retained the best elements of previous Sony models, including the now almost standard drawer loading scheme and a very togical control layout. So much for the The B-205 remote control is designed with Revox's whole "computer component" line in mind, so not all of its buttons affect the receiver. Those that do elicit a confirming wink from the receiver's standby pilot when you touch them. Choosing any active function will turn on the receiver. The tuner can be reached only via the numeric keypad and presets. Tape playback (but not monitoring) and the aux input can be selected, as can the two speaker options. Balance and volume can be adjusted and the -20-dB option turned on; the tone controls can be engaged or defeated but not adjusted.

This clearly is a very impressive receiver, whether considered alone or as part of a Revox "rack system." In some ways, it (or certainly its remote control) seems to demand inclusion in an all-Revox panoply. (If you have to ask the price, don't.) We know of no other receiver on the market that exceeds its overall performance and operating ingenuity, and few can match some of its most spectacular characteristics. It simply is in a class by itself.

old.

Among the entirely new elements are the company's Unilinear digital-to-analog (D/A) converter chip and a back-panel subcode output jack. The latter will permit graphics and text displays from appropriately encoded CDs when the necessary video translator hardware becomes available. Of more immediate interest, however, is the Unilinear converter, which is Sony's first foray into the contentious world of digital filtering.

Until now, Sony and Philips (codevelopers of the Compact Disc system) have taken opposite views on what constitutes the best solution to the problems of getting from numbers back to music. Philips has used 14-bit converters run four times faster than normal to achieve 16-bit resolution, with digital and gentle analog filters to remove the sampling artifacts without introducing large amounts of high-frequency phase shift. Sony, on the other hand, has argued that the Philips-style digital filters cannot adequately suppress ultrasonic noise in the CD output and therefore has stuck with steep-slope analog filters, despite their greater complexity and phase shift.

With the Unilinear converter, Sony claims to have achieved the best of both worlds, using a true 16-bit converter with two-to-one oversampling and newly developed high-attenuation digital filters for high noise rejection without recourse to "brick wall" analog filters. The result is said to be very clean output with low phase shift and unprecedentedly flat frequency response.

Sony is not the first company to use this basic approach, but it does seem to have achieved unusually impressive results. For example, the CDP-302's square-wave and impulse responses are extraordinarily clean and symmetrical, indicating excellent phase characteristics. (We have yet to hear any difference between lowand high-phase-shift CD players, but it's nonetheless comforting to have the whole question neatly put away.) And the frequency response is simply the best we have seen-within hundredths of a dB across the entire audible band. Of particular interest is the complete absence of the gentle rippling we have seen in the highfrequency responses of other players incorporating digital output filters.

The something borrowed is the CDP-302's miniature laser pickup, originally developed for car and portable players (such as the recently introduced D-5 Discman). It is at least partly responsible for the player's low profile. More important here, however, is the new tracking mechanism Sony has built around it, which does All data obtained using the Sony YEOS-7, Technics SH-COOO1, Philips 410 055-2, and Philips 410 056-2 test discs. FREQUENCY RESPONSE

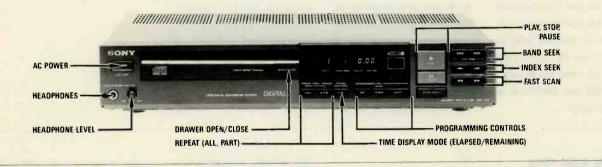
EUU	ENCI	nearu	JNJE
_			

DB	
0	
-5	
HZ 20 50 100 200	500 1K 2K 5K 10K 20K
L ch	\pm < 1/4 dB, 20 Hz to 20 kHz
R ch	+0 < 1/4 dB, 20 Hz to 20 kHz
DE-EMPHASIS ERROR	\pm < 1/4 dB, 1 to 16 kHz
CHANNEL SEPARATION	(at 1 kHz) 110 dB
CHANNEL BALANCE (at	1 kHz) $\pm < 1/4 dB$
S/N RATIO (re 0 dB; A-w	veighted)
without de-emphasis	99 1/4 dB
with de-emphasis	103 3/4 dB
HARMONIC DISTORTIO	N (THO+N; 40 Hz to 20 kHz)
at 0 dB	< 0.01%
at -24 dB	≤ 0.049%
IM DISTORTION (70-Hz	difference; 300 Hz to 20 kHz)
0 to -30 dB	< 0.01%
LINEARITY (at 1 kHz)	
0 to -60 dB	no measurable error
at -70 dB	+ 1/4 dB
at -80 dB	+1 dB
at -90 dB	+ 4 3/4 dB
	the second se

away with the usual gear linkages between the tracking motor and the pickup. Instead, the pickup is mounted directly to the motor, which is magnetically driven along a pair of rails. This system's low mass, simplicity, and absence of friction are said track, an entire disc, or any continuous segment.

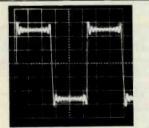
Programming, however, must be done from the front panel, using a set of three keys under the heading of RMS (for "random music selection") and the track and index steppers. saves the day. It is not the very best system we have used, but a little practice with it makes many keypadbased alternatives seem clumsy by comparison.

You cannot program the player from the remote, but you can send it



> 800 μ.
- 000 pon
pass
2.01 voits
6.93 volts
425 ohms
235 ohms





IMPULSE RESPONSE



*Into an open circuit. Maximum output into a standard 50-ohm load-is 0.79 volt.

to afford great smoothness and accuracy. The result is the fastest, most precise cueing we have encountered in a CD player. It is lightning quick, enabling you to move almost instantaneously to any track or index point. This aspect of the CDP-302's operation is addictive: It's hard to give up once you've gotten used to it.

What about the blue? Well, that's the color of some of the control legends on the front panel and the remote-control handset. All of the usual basic functions are operable from either, including track and index skipping in either direction and highspeed forward and backward audible search. The latter is quite fast, by the way, so you can hunt through a disc very quickly (provided you stay alert). And the track, index, and time displays help by keeping pace with the pickup.

When a disc is first loaded, the display briefly indicates the total number of tracks and the total playing time. During play, it can be switched from either the front panel or the remote to show time remaining on the disc or the current track and index numbers and the elapsed time within the track. Another function common to both control locations is REPEAT, which can be set to replay a single Pressing SET puts the player into the RMS mode. You can then step to the first track (and, if you like, index number) in the sequence you want to program. Pressing SET again puts it into memory, and you can proceed to the next track in the sequence—all without disturbing whatever is playing while you program. If you make a mistake, you can erase the displayed track number from memory by pressing CLEAR.

To begin the program, you press START. From then on, the track- and index-skipping and repeat features will ignore unprogrammed selections. During RMS play, you can display the selection next in the programmed sequence by pressing CLEAR, or you can cancel the memorized program and return to normal playback by pressing SET. If you want to resume regular playback without deleting the memory, you simply press PLAY. You can then return to the programmed sequence at any time by pressing START again.

We found this system slightly counterintuitive at first, but it quickly became familiar and we thereafter found it very convenient. Although the requirement that you step to a selection before programming it might sound onerous, the CDP-302's speed directly to any track at the press of only one or two buttons on a 23-key pad. It's a nice touch, particularly in light of the CDP-302's fast access time.

Diversified Science Laboratories measurements show very good or excellent performance in every category. Channel balance and de-emphasis accuracy are in the same league with the frequency response, showing errors of no more than a few hundredths of a decibel. Channel separation within the audio band drops to a minimum of more than 87 dB at 20 kHz and is more than 90 dB from 10 kHz down---surely more than adequate. Distortion and noise are low, and the player passed all of our tracking and error-correction tests with flying colors. Output level is average for a CD player, and the output impedance is adequately low for just about any conceivable installation.

In both performance and ease and flexibility of operation, the CDP-302 is a superb machine, outclassing many of its more expensive competitors. Indeed, one of its most remarkable features is its price, which is \$150 lower than that of Sony's previous-generation bare-bones player. Now that's progress.

INFINITY RS-5B Loudspeaker

Type: three-way acoustic suspension "booksheff" design in particleboard enclosure with oak veneer finish. Dimensions: 15 1/2 by 24 1/2 inches (front), 10 inches deep. Price: \$798 per pair; optional black pedestal bases, \$40 per pair. Warranty: "limited," five years parts and labor, transferable. Manufacturer: Infinity Systems, Inc., 9409 Owensmouth, Chatsworth, Calif. 91311.

Uf all the loudspeaker manufacturers in the world (and there are a lot of them), Infinity may have the broadest line, with products ranging from its \$30,000 Reference Standard system to minispeakers selling for just slightly more than \$100 per pair. It is thus rather surprising how consistent a thread runs through them. This is most apparent in speakers like the RS-5B, which is (conceptually, at least) about midway between the extremes, incorporating elements of both.

Like the least expensive models, it is a conventional sealed-box design with a single driver assigned to each frequency range. But the highs are reproduced by one of the company's planar EMIT (electromagnetic induction tweeter) drivers, which are liberally used in the far more complex, topof-the-line Reference Standard system. A 11/2-inch polypropylene dome handles the range from approximately 4 kHz down to 600 Hz, below which a 10-inch polypropylene cone takes over. The three drivers are aligned vertically on the front baffle behind a dark-brown removable grille cloth

The oak-finished cabinet has rounded, decoratively ribbed vertical edges in front that wrap around to meet the grille. This gives the speaker a very striking appearance, particularly when mounted on one of the optional black bases that Infinity recommends for best performance. (The RS-5B is equally arresting with its grille off, exposing its translucent woofer cone and novel midrange and treble drivers.) A pair of color-coded spring clips, which accept either bared-wire amplifier leads or banana plugs, are neatly recessed into the back panel, along with level controls for the midrange driver and tweeter.

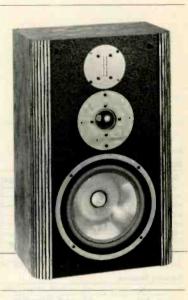
For its primary measurements, Diversified Science Laboratories placed the speaker according to Infinity's suggestion: on its stand about three feet out from the wall behind it and well away from side walls. (The stand raises the speaker approximately nine inches above the floor and tilts it back slightly.) Despite the resulting lack of boundary reinforcement, the RS-5B proved to have very respectable bass output, with a slight prominence centered on approximately 125 Hz. With the driver level controls centered, its overall room-corrected third-octave response was within $\pm 41/2$ dB from 50 Hz to 20 kHz onaxis and within $\pm 33/4$ dB off-axis. Both curves are smooth, and they are remarkably similar, even in the extreme treble. In fact, this speaker has the best high-frequency dispersion we can recall seeing. DSL also ran some response curves with the speaker against the wall, but they exhibit a much larger bass bump, confirming the wisdom of Infinity's placement recommendation.

Sensitivity is about par for a contemporary speaker, and the average impedance is moderately high. The impedance curve is quite irregular, however, with values ranging from a maximum of 29 ohms at 530 Hz to a low of 2.2 ohms at 1.8 kHz with the driver level controls centered. Turning the midrange control all the way down raises the minimum to only 2.7 ohms, and turning it all the way up drops the impedance to 1.6

ohms. Poorly designed amplifiers may respond badly to this load, and we would counsel against running a pair of RS-5Bs in parallel with another set of speakers.

In our 300-Hz pulse powerhandling test, the RS-5B accepted without complaint the full 63-volt peak output of the lab's amplifier (equivalent to 496 watts, or 27 dBW, into 8 ohms), delivering a calculated sound pressure level (SPL) of 115 dB-more than loud enough for anyone. Measured distortion is somewhat greater than average, especially at the bottom of the tweeter's range, where it reaches several percent at all of our test levels. The lab also noted a less severe spike at 250 Hz. Otherwise, we find no outstanding features to the distortion figures other than their tendency to increase at very high and low frequencies and with rising drive level-all normal behavior for a loudspeaker. Total harmonic distortion (THD) averages a shade more than 1/2 percent from 100 Hz to 10 kHz (our upper measurement limit) at a moderately loud 85 dB SPL, climbing to almost 2 percent at 95 dB SPL. Distortion was difficult to measure at higher levels because of what appears to be the action of a protection circuit that attenuates the input to prevent driver failure.

The speakers nonetheless sound quite clean (not too surprising given the artificiality of the lab test conditions), and certainly we were able to play them very loud without evoking any sign of distress. We used approximately the same placement that DSL employed for its measurements. With the driver level controls at their "flat" settings, the resulting balance was smooth and natural through the midrange and treble. A touch of extra warmth was apparent in the bass, but whether this is objectionable is very much a matter of personal taste. The effects of the level controls are, as the lab measurements imply, tasteful; we



ROOM RESPONSE CHARACTERISTICS

DB +5				T	-	
0	A		-		-	2
-10					-	-
HZ 20 50	100 200	500 1K	2К	5K	10K	20K
bo	undary-depe	ndent regio	n			_
-	-axis response		1			_
of	l•axis (30°) resp	onse				
SENSITIVIT 250 Hz to 6	ř (at 1 <mark>meter;</mark> kHz)	2.8-volt pi	nk nais	e,		
				88	dB SP	'L
AVERAGE IM	APEDANCE (2	250 Hz to 6	kHz)	11	.7 ohr	ns'
APPROXIMA	TE TWEETER	CONTROL	RANG	E (re '	"flat")
		+4, -3	dB above	e 7 kHz	z	
APPROXIMA	TE MIDRANO	GE CONTRO	DL RAN	GE (re	e "''fla	ť")
	1	+2,-1	1/2 dB	1.6 +0.	2544	-

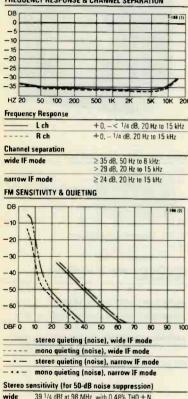
With driver level controls centered.

could not find any combination of settings that made the speaker sound really bad. For the most part, however, we preferred the sound with the controls centered or adjusted for just a slight reduction in the treble or midrange. The RS-5B scores high points for its clarity and for its stereo imaging, which is precise and stable. Overall, we would characterize its sound as punchy and up-front as opposed to polite and reticent. You should therefore make a point of auditioning it

before buying, to be sure that this character suits your taste. We enjoyed the RS-5B for the time that our samples were on-hand, and we expect that most other people (rock fans especially) will be equally appreciative.

FREQUENCY RESPONSE & CHANNEL SEPARATION

Except as noted, data is for the wide IF mode



 wide
 39 1/4 dBf at 98 MHz, with 0.48% THD + N (41 dBf at 90 MHz; 40 dBf at 106 MHz)

 narrow
 42 dBf at 98 MHz, with 0.97% THD + N (44 1/2 dBf at 90 MHz; 42 1/2 dBf at 106 MHz)

Mono sensitivity (for 50	-dB noise suppression)
wide IF mode	15 1/2 dBf at 98 MHz
narrow IF mode	19 dBf at 98 MHz
Muting threshold	
wide IF mode	24 dBI
narrow IF mode	28 3/4 dBf
Stereo threshold	
wide IF mode	22 1/2 dBf
narrow IF mode	25 dBf
Stereo S/N ratio (at 65 o	dBf)
wide IF mode	71 dB
narrow IF mode	69 1/2 dB
Mono S/N ratio (at 65 d	Bf)
wide and narrow IF mod	es 80 dB

ACCUPHASE T-106 AM/FM TUNER

Main features: AM and stereo FM operation, digital frequency-synthesis tuning with 14 station presets, selectable IF bandwidth, and meters for signal strength, multipath, and modulation level. Dimensions: 17 1/2 by 4 3/4 inches (front panel), 14 1/2 inches deep plus clearance for controls and connections. Price: \$1,100. Warranty: "limited," three years parts and labor. Manufacturer: Accuphase Laboratory, Inc., Japan; U.S. distributor: Madrigal, Ltd., Box 781, Middletown, Conn. 06457.

A sense of celebration is inevitable in considering the Accuphase T-106 tuner. The company's products impressed us when, some years back, Teac distributed them here, and nothing quite like them has come along since. Recently a Connecticut company called Madrigal began importing them to the American market once again. And this tuner turns out to be one of the most endearing and capable we've reviewed in quite a while. So welcome back, Accuphase!

Though it really has nothing to do with the tuner's quality, the first thing that strikes you about the T-106 is the soft gold panel tint—a oncefamiliar color that has all but disap-

peared in recent years. (A version with a black faceplate also is available.) Then you notice the tuning knob: unheard of on today's supertuners! Finally, there are the two analog tuning meters, one for signal strength (calibrated in dBf) and one for multipath (switchable for displaying audio modulation level). Once we recovered from our initial nostalgia trip, we began to think about the genuine contributions these meters make for users with antenna rotators. To be able to see the result of your antenna "tuning" in real time-that is, while you're actually rotating itand with the detail that only an analog meter can supply is a rare pleasure these days. To be able to assess signal strength and multipath independently but simultaneously is almost too good to be believed for the embattled deep-fringe FM listener.

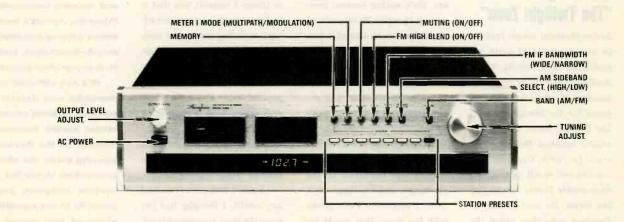
A further boon in deep-fringe areas, though it can be useful in cities as well, is the IF (intermediate frequency) mode switch. Under ideal reception conditions, the broadest IF bandwidth and the gentlest IF filter slopes deliver the least distortion and the greatest channel separation. But these IF characteristics can allow the intrusion of interfering signals from strong stations nearby on the dial, so the narrow-band option (with steeper skirts as well as more limited overall bandwidth) can deliver better sound in some situations.

There's a somewhat similar feature for AM reception: a sideband switch that selects the upper or lower half of the full RF (radio frequency) waveform. Because the T-106's synchronous detector can recover the audio from one sideband alone, you can choose whichever suffers least from interference. It's particularly useful at night, when the AM dial becomes crowded with distant stations. Though we don't measure the performance of the AM sections in home tuners, this one strikes us (subjectively) as among the best we've encountered.

For listeners who want to chase after weak FM stations, there are separate muting and mono switches. Another switch blends channels at high frequencies to cancel hiss. (As in many other tuners and receivers, this feature is called a "filter" here.) These options all can be useful if you're determined to make the most of weak or multipath-ridden signals.

Accuphase supplies a loop antenna (and the usual binding posts, so you can add a long-wire antenna) for AM and an antenna adapter for FM. The latter mates to a back-panel device that looks like an F connector but isn't: It won't accept the standard threaded collars. The adapter takes either 75-ohm coax or (via a built-in balun transformer) 300-ohm twinlead. If you get signals from a cable system whose F connector you're reluctant to butcher, you'll have to run it into a balun (converting it to 300 ohms) and attach the balun's twinlead stub to the adapter (converting it back). Once again, we wonder why is with the more usual up/down buttons, and we quickly grew very fond of the old-fashioned feel it gives to a decidedly modern tuning mechanism.

In one respect, however, the T-106 behaves quite unlike real analog In a number of respects, the T-106's performance qualifies as superb. Frequency response is astonishingly flat, even to the bottom of the audio band, and channel separation is excellent in the wide IF mode. (The narrow mode can be expected to



so few manufacturers offer direct Fconnector plug-ins for 75-ohm antenna leads. The back panel also holds two pairs of pin-jack outputs, one of which is controlled by the front-panel level adjustment knob.

Except for the presets, tuning is entirely manual and has much of the feel of analog tuning, though it's actually digital circuitry at work. As you turn the knob, the frequency readout steps by 100-kHz (halfchannel) increments on FM or 10-kHz (full-channel) increments on AM. The pace across the dial is not particularly swift, even when you twirl the knob as fast as possible, but it's not annoyingly slow either. The knob makes it somewhat easier to zero in on a frequency (or, by ear, a station) than it tuners: There's no absolute relationship between the knob position and the tuned frequency. When you come to the end of the band, the knob continues to rotate, but the readout remains fixed at the final frequency and the little beep that announces a tuning change falls silent. The sound, which could rapidly become annoying in other contexts, is useful in telling you when you've detuned—which the buttery smoothness of the knob makes easy.

Each of the seven presets holds two memories, differentiated by the setting of a switch at the right end of the preset row. When the switch's upper pilot is lit, Presets 1 through 7 are available; with the lower pilot on, the same buttons choose Presets 8 through 14. A readout in the display panel shows the preset number (if you've chosen one). Each of the 14 memories will retain one FM or one AM station. If you select a preset for an AM station while the tuner is switched to the FM band, it automatically goes to AM, and vice versa. Other mode-switch settings are not memorized.

reduce separation.) Signal-to-noise (S/N) ratios are better than average in both stereo and mono. Adjacentchannel selectivity is excellent in the wide IF mode and stunning in the narrow one; the alternate-channel readings scarcely change, but are topnotch at both settings. Only stereo sensitivity is noticeably short of the standards set by the best tuners we've tested, which have measured several dBf better.

We enjoyed using this tuner. In its sound, its feel, and its flexibility, it exudes a sense of luxury and of sober, unassuming, ungimmicked style. And curiously, its most sterling virtues appeal equally by their freshness and by their evocation of traditional tuner design. The T-106 is rare—even unique—in both respects.

wide IF mode		1 1/2 dB
narrow IF mode		4 1/2 dB
SELECTIVITY	wide	narrow
alternate-channel	61 1/2 dB	66 1/2 dB
adjacent-channel	10 dB	28 1/4 dB
HARMONIC DISTORTION	(THO+N)	
wide IF mode	stereo	mono
at 100 Hz	0.190%	0.056%
at 1 kHz	0.086%	0.042%
at 6 kHz	0 190%	0.046%
narrow IF mode	and the second se	
at 100 Hz	1.39%	0.073%
at 1 kHz	0.84%	0.273%
at 6 kHz	0.63%	0.094%
STEREO PILOT INTERMO	OULATION	
wide IF mode		0.064%
narrow IF mode		0.65%
INTERMOOULATION DIST	ORTION (mono)	
wide IF mode		0.027%
narrow IF mode		0.082%
AM SUPPRESSION		64 dB
PILOT (19 kHz) SUPPRES	SION	69 1/2 dB
SUBCARRIER (38 kHz) SI	UPPRESSION	> 100 dB
OUTPUT LEVEL (from 100	% modulation)	
fixed output or variable or		0.85 volt
OUTPUT IMPEDANCE		
fixed output or variable or	utput at max.	195 ohms
variable output at -6 dB		1.290 ohm

Edited by

Revisiting "The Twilight Zone"

As the classical music feature in our August 1984 issue, we published a review by Noah André Trudeau of four albums devoted to scores composed for the television series The Twilight Zone. News of the article reached Marius Constant in Paris. Constant, as readers will recall, penned the memorable theme music for the series. He sent a note to Trudeau, who then asked the composer if he would be willing to provide us with a brief account of how he came to write the theme. Here is Constant's reply.



Composer Marius Constant

It is Paris, 1960. I'm visited by the musical director of CBS-TV, Lud Gluskin, who tells me that he has heard good things about my music and has a proposition for me. CBS is about to begin a new television program consisting of a series of unusual, even bizarre, stories set into everyday life and surroundings. The producer is looking for a signature theme that is original and

Georgia Christgau

and

immediately accessible to listeners. He's asking several composers to write 30 seconds of music for a small ensemble (ten musicians maximum), and he reserves the right to select the theme that best fits his concept of the program's style.

Gluskin asked me to write three or four pieces for this "international competition," and he grandly offered me \$200 for my work. I was fascinated by the challenge, and so, three days later, I entered a Paris studio with the music that would become the signature theme of *The Twilight Zone*.

Several months later, I received a letter of congratulations from CBS telling me that I was the winner, along with a check for \$500! Since then—after 25 years—I've hardly received enough royalty payments from the Society of Authors and Composers (SA-CEM) to buy me cigarettes.

And despite several trips to the United States, somehow I never learned that my theme music had become so popular until two years ago. During the run of La Tragédie de Carmen (which I wrote with Peter Brooks), I was having dinner with some American singers engaged for the production and I happened to mention in passing that I had written the theme for The Twilight Zone. There was a moment of stunned silence, followed by an enthusiastic outburst; it was as if I had confessed to having written Beethoven's Ninth Symphony!

I soon learned that my theme had become a ubiquitous fixture of American life, indeed even part of the American sub-



F

consciousness. There were other things I learned, too: that it had been used in several recordings, including one by the wellknown group Manhattan Transfer that became a best-selling album; that there were several popular books about the television series; that Steven Spielberg made a film that used the theme; that there were toys that played the melody (I found one marked "Made in Hong Kong").

Since I had never received any credit, I thereby had become the most anonymously celebrated person in the United States! You'll rejoice with me to realize that in this day and age one can still become—just as in the 14th or 15th century—a famous anonymous composer.

[Incidentally, Constant is currently working on a commission from the Deutsche Oper, Berlin, for a ballet with voices on the subject of The Blue Angel. After its Berlin premiere, the work will be performed in Washington and New York.— Ed.]

ECM Improvises

For me the symbol of the economic success and artistic ambivalence of ECM Records will always be their biggest seller: Keith Jarrett's 1975 *The Köln Concert*. Everyone seems to own this record, but like most of ECM's voluminous catalog, *The Köln Concert* isn't strictly a jazz album. The best jazz moves you with the emotional outpouring of its passion and holds your attention with the cre-

Ted Libbey

ative logic of its rhythmic and melodic constructions. Primarily, Jarrett's improvisatory playing establishes a mood—meditative, ruminative, or just plain soporific.

It's not difficult to understand why Jarrett and much of the label's noncommittal music became so popular in the Seventies, Leaving aside the obvious connection to the Me Generation zeitgeist, further clues lie in the transitional stage of jazz during that decade. Consider what was receiving the most publicity at that time. On the one hand was the sound and fury of groups like Mahavishnu and Weather Report that signified fusion (too loud and fast); on the other, the experimental visions of the New York loft scene and Chicago's AACM contingent (too challenging and diffuse). Enter into the gap ECM, the independent European art label that assured American consumers refined taste, state-of-the-art sound, and comforting accessibility. As one of their execs put it, "We pioneered the nonclassical chamber music sensibility." Among all the fluff, substantial albums by hard-hitting individualists like Dave Holland, Old and New Dreams, Jack DeJohnette, and the Art Ensemble would appear, but only in frustrating dribs and drabs.

Then last year, longtime director Bob Hurwitz left to take over Nonesuch Records. Jarrett, ever the mas-

64

ter of publicity and the grand gesture, announcd his "final" solo piano concert. In October, Collin Walcott, an integral member of Oregon, one of the label's most popular acts, died tragically in a car accident. It seemed like the end of an era, especially in light of the increasing popularity of the upstart Windham Hill label, and the perfect time for corporate rumors to spread. Soon one did: ECM would be abandoned by its U.S. distributor, Warner Bros.

Not so, according to Lee Townsend, the new director of U.S. operations. "It's not at all true. 1984 has been our best selling year." For Townsend, there has never been any question of an identity problem for the label. "Unfortunately, we have been pigeonholed as a jazz label, but jazz isn't the only musical tradition that relies on improvisation. We are about creative contemporary music." ECM's commitment to new music (like Meredith Monk and Steve Reich) and ethnic musicians (like L Shanker and Egberto Gismonti) will continue; their New Series will present works by contemporary classical composers, "It's all part of the same vision," Townsend says. "We are equally at home with Arvo Part and Pat Metheny." Add the Art Ensemble, Dave Holland, and now Marc Johnson to those names; all plan 1985 releases.

Steve Futterman

POWERFUL

REDEFINITION.

THE CARVER RECEIVER: Redefines your expectations of receiver performance with the power you need for Digital Audio Discs plus virtually noise-free *stereo* FM reception. A receiver with astonishing performance incorporating two highly significant technological breakthroughs: Bob Carver's Magnetic Field Power Amplifer and his Asymmetrical Charge Coupled FM Detector.

ESSENTIAL POWER: Your system needs an abundance of power to reproduce, without distortion, the dynamic range of music on Digital Audio Discs and fine analog recordings.

The Magnetic Field Amplifier in the CARVER Receiver gives you 130 watts per channel* of *pure*, clean power with superbly defined, high fidelity reproduction.

The Magnetic Field Amplifier produces large amounts of power (absolutely necessary for the accurate reproduction of music at realistic listening levels) without the need for heavy heat sinks, massive transformers, and enormous power capacitors required by conventional amplifier design.

Unlike conventional amplifiers which produce a constant, high voltage level at all times, irrespective of the demands of the ever-changing audio signal (Even when there is no audio signal in the circuit at all!), the Magnetic Field Amplifier's power supply is signal responsive. Highly efficient, it produces *exactly and only* the power needed to carry the signal with complete accuracy and fidelity. The 130 watts-per-channel* CARVER Receiver is about the same size and

weight of conventional receivers having merely 30 watts per channel!

NOISE-FREE RECEPTION: The AM-FM CARVER Receiver gives you FM stereo performance unmatched by that of any other receiver.

As it is transmitted from the station, the stereo FM signal is extremely vulnerable to distortion, noise, hiss and multipath interference.

However, when you engage CARVÉR's Asymmetrical Charge Coupled FM Detector circuit, the stereo signal arrives at your ears virtually noise-free. You hear fully separated stereo with space, depth and ambience!

"This receiver combines the best elements of Carver's separate tuner and amplifier... The Carver Receiver is, without question, one of the finest products of its kind I have ever tested and used. Bob Carver is definitely an audio and r.f. genius." *Leonard Feldman, Audio Magazine, June 1984*

"I consider the Carver Receiver to be the "most" receiver I have yet tested in terms of the quantitative and qualitative superiority of almost all its basic functions." *Julian D. Hirsch, Stereo Review, April 1984*

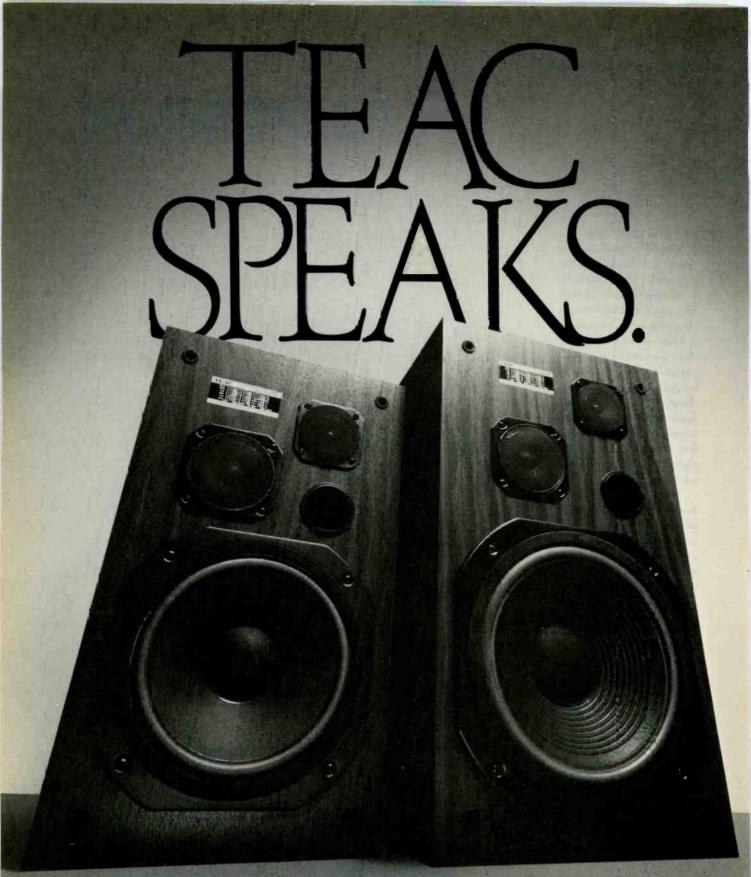
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"Messiah" Done Solti-style by In Chicago

David Patrick Stearns

Sir Georg says no to early instruments and Victorian scale.

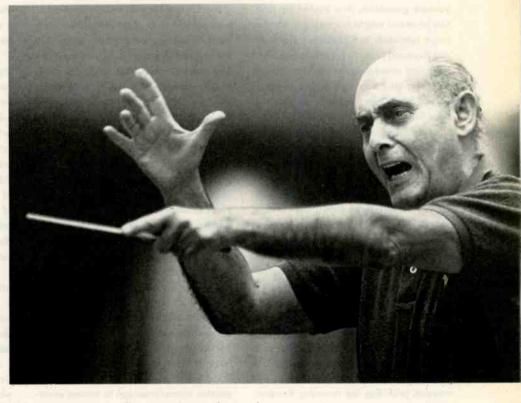
Sir Georg Solti is certainly not the first person one would think of as an interpreter of Handel's *Messiah*. With authentic-instrument performances becoming increasingly fashionable, what business does a lifelong Wagnerian have conducting it—or for that

matter, any Baroque music?

C

Not so long ago, Solti himself felt this way. In fact, his transformation from one who dismissed *Messiah* as "empty and pompous" to a Handel champion so devoted that he devised his own edition of the score—with a moderate number of concessions to authenticity—is one of the most remarkable occurrences in his long career.

Initially, the Solti Messiah was meant to be a backlash from authenticity. The Decca/ London executives figured that a silent majority of music lovers still likes its Messiahs big and Brucknerian. What chorus, they may have asked themselves, would be better



than the Margaret Hillis-trained Chicago Symphony Chorus, what orchestra better than the Chicago Symphony, to restore Handel to the old 19th-century lushness? But Solti, who had never conducted the work, balked at the idea.

"I always heard this huge, Victorian orchestra [and a] big sound," he said. "I heard it with trombones, flutes, and clarinets..., and when I looked into the Prout score, I decided I'm not doing that! It's a monstrosity! A falsification of the Baroque! [Solti seems incapable of expressing himself in anything but exclamations.] Then I looked at some different editions and listened to two recordings that were made with old instruments, which I didn't want to do either, because I don't believe they capture the Baroque. I studied the Mozart orchestration, but that sounds too much like *The Magic Flute*. I really looked at five scores before I accepted."

What finally made Solti comfortable with the notion of conducting *Messiah*? He at last found a score that reflected what Handel actually intended it to be. "I fell in love with it, absolutely! It is an equal counterpart to the *St. Matthew Passion*." He used the Halle Handel version edited by John Tobin, though the dynamic markings

are entirely Solti's own, arrived at after hours of painstaking analysis, sometimes after consulting friends and family. In the end, though, the final arbiter on all such points was the oratorio's text: "The words dictated the interpretation of the work. In every number you will find this. In 'And he shall purify,' the music is so gentle, so purifying. In 'His yoke is easy,' the whole piece is so light."

Thus, at an age (seventy-two) when most conductors narrow their repertoire and dole out their wisdom to musicians of the younger generation, Solti learned the massive score and sought out such younger Baroque specialists as Christopher Hogwood and Raymond Leppard for help in establishing a clear sound-image of what his *Messiah* would be. "Hogwood gave me some materials and said, 'Once you feel it, do what you want to do.'"

Solti did, of course, even though it meant meeting the recording executives only halfway. The soloists-Kiri Te Kanawa, Anne Gjevang (Solti's Norwegian Erda in his Bayreuth Ring, here replacing an indisposed Marilyn Horne), Keith Lewis, and Gwynne Howell-all came from the operatic, rather than early-music, camp. Solti maintained his conviction that modern instruments are better' than old ones: "I don't believe in recapturing the Baroque instrument today when we have such splendid instruments to work with." However, for the sake of authenticity he scaled the chorus down to one hundred, the orchestra to sixty-still large by period performance standards, but as Chicago Tribune critic John von Rhein said about the concerts preceding the recording sessions, "Rarely have I heard such a large body of voices make music so uncannily like a chamber chorus.... The choruses took on an unfamiliar radiance, such was the lightness, clarity, and crispness."

"I aimed for the inner lightness, the bouncy quality of it," Solti agreed. "For clarity within the voices. The Compact Disc will give us now the ability to achieve a light sound that wouldn't have been possible on the black disc."

Solti's approach toward ornamentation was discreet. "I am told that in one performance Handel conducted, after he went through the first tenor aria (with a singer who apparently took extravagant cadenzas), he said, 'Welcome home, Mr. Brown!' Obviously, Handel didn't want too much." The interpretation is still distinctively Soltian, with the customary brisk tempos, and Solti's penchant for the picturesque gives Handel's musical word-painting an almost three-dimensional quality.

With nary a trumpet sounding, the recording sessions began in a Fellini-esque atmosphere, with Orchestra Hall's stately architecture made surreal by the placement of plywood over some of the seats, plastic over others. The stage was extended 24 feet into the hall, and 18 microphones were hung like high-tech stalactites. With only a few words to the orchestra-in a sort of verbal shorthand, but with a sense of formality surprising in light of his 15-year association with the orchestra-Solti led the Chicagoans and the soloists (minus Te Kanawa) through three or four arias as a trial run, like the Polaroid test print that photographers take before snapping a portrait. Retreating into the playback room, he needed only to hear a single take of a given passage to know exactly what he wanted to do with it, even if he didn't return to that particular aria until a few days later.

Such aural memory is not unexpected, considering the intensity with which Solti listens—a sight that's not always pretty. Rooted in his chair, he maniacally scrawls notes on his score and responds to the music with spasmodic jolts that convulse his entire body. And that, says one longtime colleague, is the *relaxed* version of Solti. Let's not forget that several years ago he became so carried away with the music he was conducting that he accidentally stabbed himself with his baton.

Meanwhile, Te Kanawa was performing in a highly successful run of Arabella down the street at the Lyric Opera of Chicago, with a schedule too busy to permit her to sing the Messiah performances. For her, as for Solti, Messiah had never figured very prominently in the career, and she, too, approached the project with some trepidation.

"I was always considered an operatic singer rather than a Sheila Armstrong or Janet Baker type," she said prior to the sessions. "It takes a very internal strength to make the piece work. It's a serious, religious piece, very contented, very inwards—as opposed to extroverted, as I am. I guess I'll figure it out when I get there."

If she seemed a bit blithe, it's because she had full confidence in Solti's ability to guide her in the right directions. "I like people who are really grand, and when I love somebody very much... whatever he says is fine with me."

Back on stage, Solti checked his digital metronome and whistled absently through his teeth, picking up an aria in midphrase and exhorting the orchestra to play even more lightly—though his Wagnerian bias crept in when he told soloist Howell, "You should sound like Wotan when you sing 'and I will shame.' There should be anger! You're too good a boy!"

Solti insisted on performing and recording the work without cuts. The three rehearsals and two concerts that preceded the recording were complicated by Horne's cancellation and by a separate concert that had to be quickly organized as a memorial for the orchestra's late general manager, John Edwards. Even under the best of circumstances, *Messiah* consumes large amounts of session time simply because it is a series of miniatures, each demanding individual polish, as opposed to a work like the *German Requiem*, which is best recorded in long musical paragraphs.

"But," said Solti of the ordeal, "my groups always perform miracles."

And did the level of performance he had achieved qualify as a miracle? Solti scowled, thought for a second, and replied, "A semimiracle."

That may well be the attitude of the Grammy Award nominating committee, which has favored Solti so unflaggingly that this new recording will no doubt be nominated next year in as many categories as possible. This is fine with Solti, the all-time leading winner with a total of 23. "Of course, I didn't do it for that," he said, "though I know I'm being threatened by this Mr. Michael Jackson!"



Asked on a final exam to sum up Bach's life and achievement, a student in a music history class began: "Bach was the father of 20 children, and a master of the Passion." All of which is true, of course, though not quite in the way it sounds.

Johann Sebastian Bach, born March 21, 1685, was the master not only of the Passion but of the cantata, the concerto, the sonata, the suite—in short, of an astounding variety of forms both sacred and secular, instrumental and vocal, ranging from the most intimate to the most magnificent. And not only was he a prolific sire who, at age forty-five, could boast that his family could form a complete vocal and instrumental ensemble, he was also one of the most prolific composers in history, with musical "children" numbering in the thousands.

In his own day, Bach was famous principally for his phenomenal keyboard virtuosity. By the end of his decade of service in Weimar (1708–17), he had secured a reputation as the greatest organist and improviser in Germany—a distinction confirmed a few years later by the aged J. A. Reincken, who, after hearing him extemporize on the cho-

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rale An Wasserflussen Babylon, remarked, "I thought this art was dead, but I see it still lives in you."

Yet it made no difference whether Bach wrote for the keyboard, the voice, or any of the wind, brass, and string instruments known to him: He understood the capabilities of all. Neither did it matter what style he chose to express himself in, for though he had thoroughly assimilated the practices of the high German Baroque and wrote formidably in the archaic mode, he was also conversant with the newer tastes and understood as well as anyone the conventions of Italian instrumental and vocal music. Furthermore, Bach was a brilliant innovator. His craft knew no limits.

Bach traveled widely in Germany but never set foot outside of it. In this respect he differed from his more cosmopolitan contemporaries, among them Handel and Telemann. His music differed from theirs, too, in that almost all of it was written for his own performance or for presentation by groups under his direction, rather than for broader public consumption. It assumes very high executant standards—one reason it appeals so directly to today's performer.

In serving a variety of "princes," Bach developed into a musician of universal attainments. Even if circumstances had been different, his own natural inclination would have been to branch out into as many areas of composition as he could. Thus, Bach's nature and his professional situation worked to the same end: the creation of a body of music whose universality is all but unparalleled.

The discography that follows is offered as a guide for acquiring a basic library of Bach's music, as represented on recent recordings by informed interpreters. Not listed are two outstanding releases that have been deleted by Angel in the past two years: Eugen Jochum's recording of the B minor Mass with the Bavarian Radio Symphony Orchestra and Chorus, and Otto Klemperer's account of the St. Matthew Passion with the Philharmonia Orchestra and Chorus, Collectors should note that a number of bargainprice reissue packages featuring Bach's most popular works are on the way. Reviews of these and other important Bach releases will appear in forthcoming issues of HF.

Theodore W. Libbey, Jr.

ORCHESTRAL WORKS 1001; in A minor, 1

Brandenburg Concertos, B.W.V. 1046–51, Nos. 1–3*, 4–6†.

English Concert, Pinnock. Archiv 410 500-1* (D). • 0: 400 500-2. Archiv 410 501-1+ (D). • 0: 400 501-2. (Distributed by Deutsche Grammophon.)

Concertos for Violin and Orchestra: in A minor, B.W.V. 1041; in E, B.W.V. 1042.

Standage; English Concert, Pinnock. Archiv 410 646-1 (D). 🖸 🛈

Suites for Orchestra: in C, B minor, D, and D, B.W.V. 1066–69.

English Baroque Soloists, Gardiner. RCA Erato NUM 75076 (D, 2). 💷 (2). **(**2): **(**2): **ECD** 88048/9.

INSTRUMENTAL WORKS

Sonatas and Partitas for Violin, B.W.V. 1001–6. Milstein. Deutsche Grammophon 2709 047 (A, 3). (1): 3371 030.

Sonatas: in G minor, B.W.V.

1001; in A minor, B.W.V. 1003; in C, B.W.V. 1005. Partitas: in B minor, B.W.V. 1002; in D minor, B.W.V. 1004; in E, B.W.V. 1006.

Suites for Cello: In G, D minor, C, E flat, C minor, and D, B.W.V. 1007-12. Fournier. Archiv 198 186/8 (A, 3).

VOCAL WORKS, SACRED

Cantata No. 80 ("Ein feste Burg ist unser Gott"); Cantata No. 140 ("Wachet auf, ruft uns die Stimme"). Mathis, Schreier, Fischer-Dieskau, Munich Bach Orchestra and Chorus, Richter. Archiv 2533 459 (A).

Magnificat in D, B.W.V. 243.

Stader, Topper, Haefliger, Fischer-Dieskau; Munich Bach Orchestra and Chorus, Richter. Archiv 198 197 (A).

Mass in B minor, B.W.V. 232.

Hansmann, Lliyama, Watts, Equiluz, Egmond; Concentus Musicus Vienna, Harnoncourt. Teldec T 35019-LP (A, 3). (3). (2). (Distributed by Intersound. Inc.)

Motets, B.W.V. 225-30.

Concentus Musicus Vienna, Stockholm Bach Choir, Harnoncourt. Teldec T 42663-LP (D). 📼 👁

St. Matthew Passion, B.W.V. 244.

Mathis, Baker, Schreier, Fischer-Dieskau, Salminen; Regensburg Cathedral Chorus, Munich Bach Chorus and Orchestra, Richter. Archiv 2712 005 (A, 4). (3): 3376 016. (3): 413 613-2.

KEYBOARD WORKS Goldberg Variations,

Goldberg Variations, B.W.V. 988. Schiff (piano). London LDR 72013 (D, 2). (1) (2).

Passacagiia in C minor, B.W.V. 582. Murray (organ). Telarc DG 10049 (D).

Prelude and Fugue, in E flat, B.W.V. 552 ("St. Anne"). Walcha (organ). Deutsche Grammophon 2535 126 (A). . 3335 126.

The Well-tempered Clavier, Bk. 1, B.W.V. 846–69. Chorzempa (harpsichord, clavichord, organ). Philips 6769 106 (D, 2). • (2): 7654 106.

The Well-tempered Clavier, Bks. 1 and 2,

B.W.V. 846–93. Walcha (harpsichord). Archiv 2714 004 (A, 5). (Available as import.)

VOCAL WORKS, SECULAR

Cantatas Nos. 202, 209, 211, 212.

Ameling, English, Nimsgern; Collegium Aureum. Quintessence PMC 2704 (A, 2). (2). (Distributed by Intersound, Inc.)

Glenn Gould: A Legacy Of Leavings

In this issue

ALFVEN: Midsommarvaka, Op. 19.

BRUCH: Violin Concerto, Op. 26.

BUSONI: Orchestral Works.

DELIUS: Orchestral Works

ENESCU: Romanian Rhapsody No. 2.

FINE: Sonata for Violin, Piano.

KODÁLY: Suite from "Háry János".

LIEBERSON: Piano Concerto.

MENDELSSOHN: Violin Concerto, Op. 64.

MOZART: Serenades; Marches

RACHMANINOFF: Symphony No. 2.

SEEGER: Sonata for Violin, Piano.

VARÈSE: Instrumental Works.

VAUGHAN WILLIAMS: "Wasps": Serenade.

WEBER: Instrumental Works.

Recitals and Miscellany

BERNSTEIN: In Budapest.

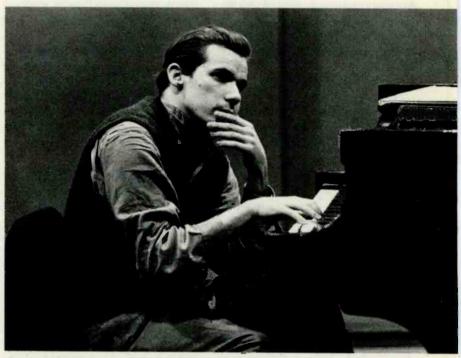
GOULD: Legacy, Vol. 1: Bach.

GÜTTLER: Corno da caccia.

KARAJAN: Encore!

KING'S COLLEGE: Italian Choral.

PARLEY: Purcell's London.



Thoughtful concert performances surpass his "definitive" studio recordings.

GLENN GOULD:

The Glenn Gould Legacy, Vol. 1: J. S. Bach.

⊙ Gould; Academic Symphony Orchestra of Leningrad, V. Slowak^{*}. Howard Scott, Andrew Kazdin, and Paul Myers, prods. CBS Masterworks M4X 38614 (A, 4). ⁽¹⁾ (4).

The Goldberg Variations, B.W.V. 988 (1955); Concerto for Keyboard and Orchestra, No. 1, in D minor, B.W.V. 1052" (live, 1957); Fugues from "The Well-Tempered Clavier," B&, II: in F sharp minor, B.W.V. 883, and in E, B.W.V. 878 (1957); Partita No. 6, in E minor, B.W.V. 807 (1957); English Suite No. 2, in A minor, B.W.V. 807 (1957); French Suite No. 6, in E, B.W.V. 817 (1971); Toccata in D, B.W.V. 912 (1976); Inventions: No. 6, in E, B.W.V. 775, No. 13, in A minor, B.W.V. 784; No. 4, in D minor, B.W.V. 775 (1963)-64). "Glenn Gould: Concert Drop-Out" (conversation with John MeClure, 1968).

The notes for this first album of *The Glenn Gould Legacy* suggest that we regard Gould's 1957 concert performance in Leningrad of Bach's D minor Concerto (the only selection on this set not issued previously) as a document of the young pianist's concert career, but not as something "intended by Gould to be a record of a definitive interpretation." As it happens, Gould did say privately that he did not like it, and he implied as much publicly by keeping it out of circulation.

However, it turns out Gould was wrong in this instance, just as he was when he let others express his conviction that "his best musical thought went into recordings," not concerts. This concert performance surpasses the studio recording with Leonard Bernstein that Gould *did* intend to be definitive, and of all the performances in this set, it is the one least afflicted with his occasional, disturbing mannerisms.

Right at the start, Gould's more cogently shaped playing has greater momentum than it did when he recorded the piece with Bernstein. Gould makes more of the tension and release inherent in Bach's harmohic progressions. He plays quietly more often, with wider dynamic contrasts, which gives the performance greater expressiveness. The texture of the piano part itself, and of the tutti passages, is more clearly recorded, and the accompaniment is more sensitive. At the opening of the second movement, Gould's playing along with the orchestra causes the strings to phrase their part as simply as he does, instead of with the impassioned overemphasis of Bernstein; and the orchestra plays less coarsely than the Columbia Symphony, notwithstanding two mistimed entrances.

In other words, this concert "document" is more than a footnote to Gould's recording career. It is the definitive performance he claimed he was unlikely to achieve in the concert hall. Furthermore, when one compares his television performance of the *Emperor* Concerto in 1970 to the recording with Leopold Stokowski, and the televised *Goldberg Variations* in 1982 to the version he released on records, the live performances again turn out to be better. This points up the ruinous effect that the uncritical acceptance of Gould's extreme ideas has had on the "legacy" of performances that are his one important contribution to posterity.

Nothing I have read that Gould said publicly about concert-giving and recording was as he said it was. His assertion that the concert hall was an anachronistic arena-where performers were consigned to play the same pieces over and over, repeating a few predictable interpretive idiosyncrasies the public clamored to hear-was incorrect. The audiences for his fellow pianists came each year to hear them play new works and to apply fresh ideas to old ones. It was Gould's idiosyncrasies-the rolled chords, italicized inner voices, and his reversal of the composer's printed tempos or dynamics-that listeners learned to anticipate hearing in each new record he made. He was wrong to assert that he only became free to be original when he gave up playing in public. People who heard his live performances recall that they were utterly original. When, after recording the Emperor Concerto with Stokowski, he played it again with Karel Ancerl for television, the audience did not tune in to hear him repeat the excessively slow tempos he had insisted earlier were necessary to justify making another recording of a familiar piece. Instead, it listened for the unique timing, phrasing, and pedaling that made his playing in what were now conventional tempos different from anyone else's, and it heard the fresh ideas it correctly anticipated he would have about music that such concerts, and not the recordings, gave him the occasion to play more than once.

Nor am I persuaded by Gould's claim,

repeated by others, that he had an instinct for technology that enabled him to adapt his playing to the microphone or the camera and to splice and edit until the finished product was uniquely suited to a particular electronic medium. It would take nothing away from his artistic stature to assign no higher purpose to his splicing different takes into his 1982 record of the Goldberg Variations than the desire to alter things he had done on television that he disliked when he heard them afterward. Far from demonstrating an uncanny awareness that people respond differently to music when they can no longer see the player, the fact that many of the changes were for the worse (notably the static opening and closing arias he substituted on the record for the flowing ones heard on television) showed that he was no more able than most musicians to distinguish between inspiration and misjudgment when listening to his own playing. Nor was it true that what worked in one medium did not work in another. His television concerts do not lose one's attention when played back later without the picture, and his 1957 Leningrad concert sounds marvelous played on a phonograph

From talking with people who knew Gould as a student, I have come to understand why he said many of the things he did. He was prompted by the same impulse that caused him at the age of thirteen or so to make a photograph of himself (reproduced in this album) playing piano four-hands with his dog. As a boy, Gould was surrounded by teachers and peers who kidded him back and helped him maintain some balance between his musical instincts and the pleasure he took in following to its extreme every idea that came into his head. As an adult, he made himself into what he thought of as a recluse-the most recorded, published, quoted, and photographed of recluses-and he talked almost exclusively with people whose admiration extended to his every utterance, people who could be counted on to report what he said in magazines and books. His quirky ideas, going thus unchallenged, justified decisions about repertoire, the printed score, and concert-giving that damaged his work as a musician. The most damaging of these was the decision not to play in public.

Having found himself, as others have, more at ease in the studio—where, as he confessed privately, he could play without worrying about the audience's reaction, dress comfortably, and fashion the performance he wanted by splicing and editing-Gould carried this discovery to an extreme others have not and quit the stage entirely. His public explanations, endlessly elaborated (in "\$60 words," as someone said) during his lifetime, continue to be reiterated today with as little relation to reality as they had then. However nervous Gould was in concert and however dissatisfied with himself afterward, on the three occasions of which we have record so far of his performing without privacy or unlimited retakes, he was stimulated to play even better than he did in the studio. And the reality for us is that his "legacy" has fewer performances like the 1957 Leningrad Bach concerto than it should.

Also included in this collection is the sixth French Suite, in E major, which stands out because Gould plays much of it with finer gradations between loud and soft and a gentler touch than was his custom. As in all the selections, there are aberrations of touch, phrasing, ornament, and tempo, but they do not detract from the extraordinary qualities of his music-making: his rhythmic. energy and timing, the uncommon independence of each of his fingers, and his use of this dexterity to delineate one line of music from another by infinitesimal differences in volume and attack, not to mention his ability to hear dense textures clearly in his mind. I do not know if anyone has observed how lit-

FORMAT KEY CLP Cassette Compact Disc Videocassette Videoclisc Open reel RECORDING INFORMATION (A) analog original

(D) digital original

Large symbol beneath title indicates reviewed format. Small symbols following catalog number of reviewed format indicate other available formats (if any).

Catalog numbers of all formats of a particular recording usually are identical except for differing prefixes or suffixes. Catalog numbers of formats other than the reviewed format are printed only if their basic numbers differ substantially from that of the reviewed format.

Arabic numeral in parentheses indicates number of items in multi-item set. Unless otherwise indicated, all multi-LP sets are in manual sequence. contrasting lyrical moments, too; the eponymous posthorn solo (in the sixth movement's second trio) is expertly played by veteran Peter Damm, while the first trio's *flautino* solo is amusingly played by an uncredited soloist.

This may well be too tense and arbitrary a *Posthorn* for many Mozarteans. I personally prefer a more relaxed and lighter approach. But it does have an exhilarating, open-air exuberance, and it's always good to hear this remarkable seven-movement work given its full weight. Moreover, this seems to be the only version currently listed in SCHWANN to include the framing marches.

The wind virtuosos from Los Angeles (paired oboes, clarinets, bassoons, and horns) also opt for a virile Mozart, but they are less tense and portentous than Harnoncourt, with a better sense of rococo graciousness and humor—which is not to imply that they slight any of the drama of the astounding C minor work. There have been other first-rate recorded versions of both these wind serenades, notably the 1970 Netherlands Wind Ensemble coupling for Philips, now lamentably out of print in this country. But the present LACO release gives even those admirable performances close competition, while excelling them sonically.

R. D. Darrell

KODÁLY: Suite from "Háry János." ALFVÉN: Midsommarvaka, Op. 19. GNESCU:

Romanian Rhapsody No. 2, in D, Op.

 Baltimore Symphony Orchestra, Comissiona. Marc Aubort and Johanna Nickrenz, prods. Voz Cum Laude D-VCL 9073 (D). . O : MCD 10015.

It's ironic that no decent recordings with Sergiu Comissiona and the Baltimore Symphony were issued until after Comissiona left his post as music director of that orchestra in 1983. Last year, Vox brought out his superb performance of the Brahms-Schoenberg G minor Piano Quartet in magnificent sound (no doubt helped by the splendid acoustics of Baltimore's new Meyerhoff Concert Hall), and the fidelity granted this pop concert is no less impressive. One wonders if Vox has on hand Comissiona's incomparable rendition of Rachmaninoff's *Symphonic Dances*, for no current recording approaches his riveting way with that score.

Since all three of the works on this rec-

ord are available in multiple (and often excellent) versions, this issue would seem to appeal mainly to Comissionans, but nevertheless the works are each presented very well indeed. Comissiona's interpretations have plenty of coloristic and pictorial atmosphere, with a welcome sense of humor riding along, and the playing is consistently and flavorfully alert.

Bill Zakariasen

VAUGHAN WILLIAMS:

Overture to "The Wasps"; Serenade to Music.

DELIUS:

Orchestral Works.

London Philharmonic Orchestra, Handley. Brian Couzens, prod. Chandos CD 8330 (D). O: ABRD 1106.

Delius: Two Pieces for Small Orchestra: Summer Night on the River; On Hearing the First Cuckoo in Spring. Summer Evening. Air and Dance for Strings.

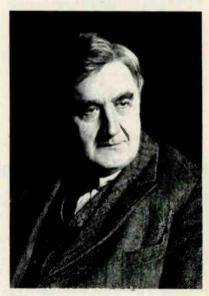
Those with a fondness for the music of Ralph Vaughan Williams and Frederick Delius are likely to have heard at least a few of these pieces before, and those familiar with the performing scene in England will probably recognize the name of Vernon Handley. If you belong to neither group, these extraordinarily satisfying performances will almost certainly make you a convert to the former and a loyal new follower of this distinguished conductor.

Handley recently assumed the associate conductorship of the London Philharmonic Orchestra, a post created especially for him in recognition of his long association with that ensemble. Although not well known on this side of the Atlantic-yet-he has built a solid reputation as a musician of taste and as a champion of British composers, much in the mold of Adrian Boult, whose assistant he was. Handley's recent recordings of the two symphonies of Edward Elgar were enthusiastically greeted in the pages of Gramophone by HIGH FIDELITY contributing editor Edward Greenfield, and his 1978 recording of Walton's First Symphony with the Royal Liverpool Philharmonic, in spite of disappointing sonics and slipshod playing, remains one of the best on interpretive grounds.

The present release finds Handley much better served by his own LPO. Without exception, these are interpretations of surpassing sensitivity and insight, beautifully played and, thanks to the Chandos team of Ralph and Brian Couzens, handsomely recorded.

Handley's account of Vaughan Williams's Overture to *The Wasps* (part of the incidental music commissioned by the Greek Play Committee at Cambridge for a 1909 production of Aristophanes' play) recalls Boult's bracing interpretation in many ways, yet has a vitality and freshness all its own. Equally appealing is Handley's way with the major novelty here, the orchestral version of the *Serenade to Music*. The performance is luminous, the tempos are superbly well chosen, and Handley brings to the piece a wonderful flexibility of rhythm and phrasing.

The Delius items are all ravishingly



Ralph Vaughan Williams

done. The prize of the group is *Summer Evening*, the earliest of the four and a piece whose incandescent lyricism shows Delius approaching as close as he ever did to his beloved Edvard Grieg.

The program as a whole provides many opportunities for the solo players of the orchestra, and the Londoners are quick to seize them. Their efforts are captured with a good deal of the natural ambience provided by All Saints' Church, Tooting, and the Compact Disc offers a stable, lifelike, and reasonably detailed image, with natural-sounding timbres except in the loudest dynamics, where things at times get a bit abrasive. Worth noting is the unorthodox distribution of the strings: the first violins are in the usual place, in front and to the left of center, but the seconds are across from them on the right side, with the violas inside of them, the

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cellos inside of the firsts (where the seconds normally sit), and the basses to the far right. This arrangement spreads the sound more evenly and results in an appealing sense of spaciousness; moreover, by separating the violins from each other and the cellos from the violas and basses, it allows the ear to focus on what each section is contributing to the polyphony.

This and a companion release of Dvorák's Symphony No. 8 are the first to come from Handley and the LPO on CD. There's no reason not to hope that they mark the beginning of a long partnership.

Theodore W. Libbey, Jr.

VARÈSE: Instrumental Works.

⊙ Yakar*, Beauregard*; Ensemble InterContemporain, Chorus of Radio France*, Boulez. Georges Kadar and Roy Emerson**, prods. CBS Masterworks M 39053 (D).

Density 21.5⁺; Déserts^{**}; Ecuatorial^{*}; Hyperprism; Intégrales; Octandre^{**}; Offrandes^{*}.

Edgard Varèse died in New York on November 6, 1965. Eighteen days later, in Paris, Pierre Boulez included two of Varèse's works-the 1921 Offrandes and the 1954 Déserts-in the opening concert of that year's Domaine musical series. The program booklet contained an essay by Boulez titled "Arcanes Varèse"-the mystery having to do with the fact that for his entire career Varèse remained a figure both marginal and solitary, as Boulez wrote, a single-minded artist who deliberately stood outside the mainstream of European and American contemporary music and who, not without great personal cost, blazed the trail that would later be taken by so many of the post-World War II avant-garde composers. Varèse was always the experimenter, the precursor, the pioneer, but finally his genius was able to be recognized. The essay ends with a telling epitaph: "Votre temps est fini, et il commence."

Boulez's assessment has proved accurate in the sense that Varèse's influence has been acknowledged by composers who represent aesthetics as varied as hard-line serialism, ultra-mellow minimalism, and far-out rock. As Boulez observed, Varèse was the first to deal with the transmutation of sonic material and spatial considerations in a modern way, and for at least 25 years these elements have indeed been major concerns of musicians who prefer to buck the tide of tradition. Yet except on festivals and concert se-



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ries devoted especially to adventurous repertoire, there have been few performances of Varèse's masterpieces. Even more rare are recordings of the music, which makes this new CBS release all the more noteworthy.

Boulez is the ideal conductor for Varèse. The essence of the music is concision and clarity, and ever since Boulez first took up the baton, in 1946, these traits have generally been regarded as the chief characteristics of his performing style. The tight, cellular construction of Hyperprism and Octandre (both from 1923) leaves little room for nuance, and even in more "romantic" pieces, such as the 1934 Ecuatorial (a setting for male chorus and chamber ensemble of an ancient Mayan prayer to the Givers of Life), the music's "expressive" power is something that is self-contained. What matters most (perhaps it's really all that matters) is that the gestures, however fragmented or crystallized, be realized with precision and set in perfect balance with one another. The music is effective-and beautiful-in and of itself. but only when its performance is an absolutely faithful translation into sound of what Varèse so meticulously specified in his manuscript. Because they are just thatflawless readings of the scores, devoid of subjective interpretation—these performances truly warrant that overused adjective "definitive"; Boulez's treatments are simply more accurate and more sharply focused than anything already in the catalog. To that end, the brilliant digital sound can only be considered an advantage.

It's unfortunate, though, that this version of Déserts comes without its three electronic interpolations: interludes Varèse said were designed "to fit my pre-established plan of the whole work," even though he allowed for their omission at the conductor's discretion. (Chou Wen-chung mentions the interpolations in his sketchy liner notes, but he does not inform the unsuspecting listener that on this recording they are not to be heard.) The original musique concrète segments, made in 1954 at the studios of Radiodiffusion Télévision Française in Paris, can be found on The Varèse Record (Finnadar SR 9018); the purely synthetic versions the composer created in 1961 at the Columbia-Princeton Electronic Music Center in New York are included in Robert Craft's complete performance of Déserts on a two-disc set titled The Varèse Album (Columbia MG 31078).

WEBER:

Six Waltzes; March; Concertino for Oboe and Winds*; Tema con variazioni; Adagio and Rondo.

François, Malgoire^{*}, Ripoche, Damiens, Di Donato, Ghislain, Lamberger, Vallon, Fiat, Bourgue, Noël, Canihac, Pongy, Marder; Malgoire. Georges Kadar, prod. CBS Masterworks M 39011 (D). =

After the overtures to the operas Oberon, Euryanthe, and Der Freischütz, and the ubiquitous orchestral arrangement (by Berlioz) of Invitation to the Dance, Carl Maria von Weber is doubtless best known today for his virtuoso music for solo winds. Clarinetists have benefited most from Weber's facile treatment of lyric melodies and his knucklebusting passage work; two concertos and a concertino are counted among their favorite showpieces, and several essays in the chamber music field offer similar opportunities for dignified exhibitionism. If they're not scheduled to play the Concerto in B flat of Mozart, solo bassoonists usually strut their stuff with Weber's Concerto in F or the composer's own revised version of the Op. 35 Andante e Rondo ungarese (originally for viola and orchestra). Horn players, too, have a special fondness for Weber, and after they've had their fill of the two concertos by Strauss, their first choice is typically We-

James Wierzbicki

NEW COMPACT DISCS

Because no store we know of carries every new CD, each month we list the most noteworthy of the latest releases. Most retailers can order your selections, even if they don't stock them. Our list is based on information compiled for us by the editors of THE NEW SCHWANN RECORD & TAPE GUIDE from CDs that they have received not from a record company's roster of scheduled releases, which may or may not be available.

CANTELOUBE:

Songs of the Auvergne, Vol. 2.

Te Kanawa; English Chamber Orchestra, Tate. (With VILLA-LOBOS: Bachianas brasileiras No. 5.) London 411 730-2.

HANDEL: Messiah

Kweksilber, Bowman, Elliott, Reinhart; "The Sixteen" Choir, Amsterdam Baroque Orchestra, Koopman. Erato ECD 88050 (3).

HANDEL:

Ode for St. Cecilia's Day.

Palmer, Rolfe-Johnson; Stockholm Bach Choir, Concentus Musicus, Harnoncourt. Teldec CDT 42349.

MacDOWELL:

Tocco. (Each with GRIFFES: Piano Works.) No. 1: Gasparo GSCD 234. No. 2: GSCD 233. No. 3: GSCD 232. No. 4: GSCD 231.

MAHLER: Symphony No. 4.

Alexander; Concertgebouw Orchestra, Haitink: Philips 412 119-2.

MENDELSSOHN:

Violin Concerto, Op. 64; Octet for Strings, Op. 20. Zukerman; Sl. Paul Chamber Orchestra, Zukerman. Philips 412 212-2.

MOZART:

Exsultate, jubilate, K. 165; Regina coeli, K. 108; Ergo interest, K. 143; Regina coeli, K. 127.

Kirkby; Westminster Cathedral Boys' Choir, Academy of Ancient Music, Hogwood. Oiseau-Lyre 411 832-2.

PROKOFIEV:

Suite from "Cinderella," Op. 87.

St. Louis Symphony Orchestra, Slatkin. RCA RCD 1-5321.

VAUGHAN WILLIAMS: Serenade to Music:

Overture to "The Wasps." London Philharmonic Orchestra,

Handley. (With DELIUS: Orchestral Works.) Chandos CD 8330.

VERDI:

Macbeth.

Zampieri, Shicoff, Bruson, Lloyd; Deutsche Oper, Sinopoli. Philips 412 133-2 (3).

WAGNER:

Siegfried.

Nilsson, Windgassen, Stolze, Hotter, Neidlinger; Vienna Philharmonic Orchestra, Solti, London 414 110-2 (4).

BACH:

Brandenburg Concertos.

Amsterdam Baroque Orchestra, Koopman. Nos. 1, 2, 3: Erato ECD 88054. Nos. 4, 5, 6: ECD 88055.

BACH:

Suites for Orchestra.

English Baroque Soloists, Gardiner. Nos. 1, 2: Erato ECD 88048. Nos. 3, 4: ECD 88049.

BEETHOVEN:

Piano Concertos.

Ashkenazy; Vienna Philharmonic Orchestra, Mehta, No. 1 (with Bagatelles): London 411 900-2. Nos. 2, 4: 411 901-2. No. 3 (with Andante in F; Bagatelle): 411 902-2. No. 5: 411 903-2.

BEETHOVEN:

Sonatas for Cello and Piano.

Rostroporich, Richter. Philips 412 256-2 (2).

ber's Concertino in E minor.

In addition to the decidedly flashy material with which he serviced the leading wind virtuosos of his day, Weber produced a considerable amount of more modest music for wind ensemble, most of it on commission from Prince Carl Friedrich of Löwenstein-Wertheim, a nobleman he met during his five-year tenure (1806-10) as Kapellmeister for the Duke of Württemberg. Some of these pieces have only recently resurfaced-of the repertoire recorded here by a French pickup group under the direction of Jean-Claude Malgoire, only one of the waltzes and the march are included in the works list that accompanies the article on Weber in The New Grove Dictionary of Music and Musicians (the Adagio and Rondo is listed, but only in its original version for harmonichord or harmonium and orchestra). Performing editions of the first five waltzes, the Concertino, and the Tema con variazioni were not available until the late 1970s; as far as I can tell, this is the first time any of the music has appeared on disc.

The material is scored, more or less, for an ensemble that expands on the pairs of clarinets, oboes, bassoons, and horns common to the Harmoniemusik of the Classical period. Except for the Concertino (the solo lines of which Malgoire delivers with splendid Gallic panache), this is all extremely lightweight fare, wonderfully idiomatic, of course, but not much on substance. The tunes are nice and the rhythms bouncy. And the sound is cheery, especially in the waltzes, which have two of the clarinets spending a lot of time in close company with the highflying piccolo. The playing is generally spectacular, and the recorded sound is brilliant, but on the whole this is the sort of music that is better appreciated at an outdoor band concert than in the stuffy confines of one's listening room.

James Wierzbicki

RACHMANINOFF:

Symphony No. 2, in E minor, Op. 27.

○ Los Angeles Philharmonic Orchestra, Rattle. John Willan, prod. Angel DS 38100 (D).

have never quite understood the high regard in which some listeners hold Simon Rattle as an interpreter of Rachmaninoff's music. His recent recording of the *Symphonic Dances*, Op. 45, with the City of Birmingham Symphony Orchestra I found pedestrian, even dull. This new recording of Symphony No. 2-apparently the first of a series to be made by Rattle with the Los Angeles Philharmonic now that he is principal guest conductor of the group-is little better. The playing often is ragged (listen to the close of the first movement and the end of the finale), the interpretation is prosaic, and the grand Rachmaninoff climaxes amount to little. Recorded in the Dorothy Chandler Pavilion, the recording is sonically highly successful, with presence, warmth, and wide dynamic range. But there are many recordings of this symphony superior to this one, notably those by Ashkenazy, Maazel, and Previn.

Robert E. Benson

MENDELSSOHN:

Concerto for Violin and Orchestra in E minor, Op. 64.

BRUCH:

Concerto for Violin and Orchestra, in G minor, Op. 26.

The roster is impressive: perhaps the finest violinist of the day and one of the world's great orchestras, led by a distinguished conductor. We expect much and, indeed, these performances are admirable in every way. Itzhak Perlman's technique is phenomenal, and his years of playing these familiar concertos produce elegant readings.

Unfortunately, the engineering is inadequate. Angel's only other recording with the Concertgebouw—of Brahms's Concerto in A minor, Op. 102, with Perlman, Rostropovich, and Haitink (Angel SZ 37680)—captures the orchestra's sound beautifully but makes the two solo instruments far too prominent. This new recording achieves a more natural relationship between soloist and orchestra, with balances that are excellent, but the overall sound is steely, strident, and decidedly unpleasant to hear, particularly in the louder passages. The rich, warm patina of the Concertgebouw is not to be found here.

If you must have Perlman's performances of these concertos, you might wish to investigate his earlier recording with André Previn and the London Symphony (Angel S 36963), an analog recording that is quite superior sonically to this disappointing digital effort.

Robert E. Benson



TRY & BEAT

FINE:

Sonata for Violin and Piano. SEEGER:

Sonata for Violin and Piano.

• Kavafian, Fine. Carter Harman, prod. Composers Recordings CRI SD 508 (A).

It pays to be reminded regularly of the wealth of virtually unknown American music that sits gathering dust on publishers' shelves or in library archives. Such is the case with the two sonatas for violin and piano recorded here. Though they embrace vastly different musical styles, both are first-rate works, well worth rescuing from obscurity.

Ruth Crawford Seeger (1901–1953) was one of those rarities in early 20th-century America—a serious woman composer. During the 1920s, she studied in Chicago at the American Conservatory, where she gained notoriety for music whose harmonic and melodic content was highly advanced for its day. Later she began to study with musicologist Charles Seeger, who introduced her to 12-tone technique, and whom she married in 1931. She composed little after the 1930s; instead she turned to collecting American folk music, transcribing thousands of songs and incorporating them into teaching methods for young children.

The Sonata for Violin and Piano (1926) was composed while Seeger was still at the conservatory. In 1928, she gave the manuscript to composer and pianist Vivian Fine. then one of her students. This same manuscript, recently donated by Fine to the Library of Congress, is today the only surviving copy of the sonata. How fortunate that this work was not lost! For it gives evidence of a potent, ruggedly individual composer, one who boldly followed her own path and was beholden to no compositional dogma. There are echoes of the free atonality of late Scriabin and early Schoenberg, but the sonata sounds like neither of them. Highly chromatic and powerfully dissonant, its surging melodic lines and crashing chordal clusters possess an Expressionistic intensity. Seeger's writing exhibits remarkable control of form and musical content, and the work certainly deserves further hearings.

Irving Fine (1914–1962) studied with Walter Piston at Harvard in the 1930s and with Nadia Boulanger in Cambridge and Paris. Upon returning from Paris, he—like most of Boulanger's protégés—had become a confirmed neoclassicist. In the early 1950s, however, he turned to 12-tone technique, and his music developed a greater Romantic intensity. Because of his untimely death and the fact that he was a meticulous craftsman, there is only a small body of finished compositions.

Fine's Sonata for Violin and Piano (1946)

is representative of his neoclassic days. (Writing in 1960, Fine remarked that "the Sonata is an early work belonging to a manner now somewhat remote to the composer.") It possesses many of the hallmarks of Stravinskian neoclassicism: a clear, precise formal structure; a tonal, mildly dissonant diatonicism; and brittle, linearly conceived textures. Yet Fine was no mere Stravinsky imitator, for the sonata sounds personal despite the neoclassic clichés. What sets the music apart as Fine's is its clever integration of two seemingly disparate aesthetics: neo-Romantic melodic intensity and crisp neoclassic precision.

Neither violinist Ida Kavafian nor pianist Vivian Fine is a stranger to new music. Kavafian was a founding member of the chamber group Tashi and has championed many contemporary composers. Vivian Fine (who is no relation to Irving) studied composition with Seeger and Sessions and has had a number of her own works recorded on CRI. Both performers dive into these sonatas with vigor, producing muscular, sharply etched readings that accentuate the pieces' more impassioned aspects and clarify stylistic and formal characteristics. Kavafian's strong, robust tone is especially praiseworthy; it lends a sweeping grandeur to both performances.

K. Robert Schwarz

CRITICS' CHOICE

The most noteworthy releases reviewed recently

BACH:

French Suites, B.W.V. 812-17; Suites: In A minor, B.W.V. 818a; in E flat, B.W.V. 819/819a. Hogwood. ©: Oiseau-Lyre 411 811-1,

Mar.

BARTÓK:

Concerto for Orchestra; Két Kép (Two Pictures), Op. 10.

Concertgebouw Orchestra, Doráti. O. Philips 411 132-1, Feb.

BEETHOVEN:

Sonata for Piano, No. 29, Op. 106 ("Hammerklavier"). Serkin. O: Pro Arte PAD 181, Feb.

DEBUSSY:

Préludes, Bks. 1 and 2; Reflets dans l'eau, from "Images," Set 1; Estampes. Egoror. O: Angel DSB 3954, Jan.

HANDEL:

Concerti grossi, Op. 6, Nos. 5–8*, 9–12†.

Standage, Wilcock, Pleeth; English Concert, Pinnock.⊙: Archiv410898-1°, 410899-1°, Jan.

HAYDN:

Symphonies: No. 100, in G ("Military"); No. 104, in D ("London").

Academy of Ancient Music, Hogwood. O: Oiseau-Lyre 411 833-1, Mar.

MAHLER:

Symphony No. 4, in G. Battle: Vienna Philharmonic, Maazel. ©: CBS Masterworks IM 39072, Jan.

PUCCINI:

Manon Lescaut.

Freni, Domingo, Bruson, Rydl, Gambill, Fassbaender; Philharmonia Orchestra and Chorus, Sinopoli. . Deutsche Grammophon 413 893-4, Mar.

PUCCINI:

Turandot.

Marton, Kmentt. Bogart, Carreras, Ricciarelli, Kerns, Wildhaber, Zednik, Rydl; Vienna State Opera Orchestra and Chorus, Vienna Choir Boys, Maazel. O: CBS Masterworks 13M 39160, Mar.

VIVALDI:

Chamber Works. Ayo, Demenga. Holliger, Jaccottet, Pellegrino, Petri. Rubin, Thunemann, O. Phillips 411 356-1, Mar.

VIVALDI:

Concertos for Oboe, Strings, and Harpsichord: R.V. 447, 453, 457, 461, 463.

Bourgue; 1 Solisti Veneti, Scimone. O: RCA Erato NUM 75110, Feb.

ZAPPA:

Orchestral and Chamber Works.

Ensemble InterContemporain, The Barking Pumpkin Digital Gratification Consort, Boulez. ©: Angel DS 38170, Feb.

RECITALS and MISCELLANY

LEONARD BERNSTEIN: In Budapest.

 Bavarian Radio Symphony Orchestra, Bernstein. Tibor Erkel, prod. Hungaroton SLPD 12631 (D). (Distributed by Qualiton Imports, 39-28 Crescent St., Long Island City, N.Y. 11101.)

BARTÓK: Music for Strings, Percussion, and Celesta. BERNSTEIN: Divertimento for Orchestra. BRAHMS (orch. Parlow): Hungarian Dance No. 6.

Irony of ironies, it has remained for a German orchestra, recorded live on November 15–16, 1983, by Hungarians, to produce the first disc of Bernstein-the-composer's 1980 *Divertimento*, created for and dedicated to the Boston Symphony Orchestra. Now we need only wait for an idiomatic remake. Meanwhile, part of the proceeds from this disc will go to UNICEF; and on Side 1 there's a soulful, often taut statement of Béla Bartók's *Music for Strings, Percussion, and Celesta.*

Bernstein-the-conductor arrayed his quorum force on the Erkel Theater stage precisely as Bartók diagrammed in the score, and a digital recording of palpable presence, naturalness, cohesion, and coherence reflects this. I could not, however, pinpoint the source of some peculiar resonances in the first movement except to know they were not playing accidents, nor was I able to forgive surfaces that clicked and ticked distractingly. But the recorded sound otherwise whets the appetite for a Compact Disc, surely forthcoming.

At age sixty-five, Bernstein takes tempos in all four movements of the Bartók Music (9:10; 7:10; 6:58; 7:25) that are slower than the composer's in the published score (6:30; 6:55; 6:35; 5:40). They are slower, too, than Fritz Reiner's with the Chicago Symphony (6:56; 6:55; 6:55; 6:38) in the 1958 RCA recording, which deserves a new life on CD coupled with the 1955 Concerto for Orchestra. Bernstein remains a dynamic conductor with a finely honed feeling for rhythm and accent. If his finale misses the Magyar accent that only Hungarian conductors seem able to master, the reminder of Bartók's relationship to Stravinsky is useful.

To what extent buyers wanting Bartók will be jollied by Bernstein's own quarterhour of music remains for each to determine. *Divertimento* has in-jokes (the oboe solo from Beethoven's Fifth is only the most obvious), stylistic consistency, flashy orchestration, and a déjà vu musk. The Bavarian players make a brave show through Sennets and Tuckets, Waltz and Mazurka, although instincts and training don't always equip them to cope with Samba, Turkey Trot, Sphinxes, Blues, March ("The BSO Forever"), and *In memoriam*.

Roger Dettmer

LUDWIG GÜTTLER: Corno da caccia.

Güttler*, Sandaut; New Bach Collegium, Pom-

Concertos for Corno da caccia, Strings, and Continuo: NERUDA: in E flat^{*}; TELEMANN: in D^{*}. Concertos for Two Corni da caccia, Strings, and Continuo: FASCH: in F^{*}[†]; HEINICHEN: in F^{*}[†].

During the Baroque era, the corno da caccia (hunting horn) was occasionally called for in the scores of Bach and others, but since those horn parts usually demand such stratospheric high-register virtuosity, they are customarily transposed down an octave in present-day performances. To be played as notated, the instrument has a shallower, more cup- than funnel-shaped mouthpiece that makes it easier for trumpeters than hornists to master—except that the former must be supplied with a horn especially designed for *right-handed* use.

That's exactly what instrument-maker Friedbert Syrhe does in his "descant horn ... with the timbre of the early 18th-century *corno da caccia.*" Apart from the fact that this modern instrument is valved, the exploitative program here is anyway not a strictly purist one, since the fine accompanying ensemble uses modern instruments and Güttler himself is far more a Romantic showman than a true Baroque stylist.

But all that's beside the sonic point, which is that what we hear now—regardless of how closely it may approximate *echt corno da caccia* qualities—is sheer delight for sound fanciers. Much fatter tonally than any trumpet, the descant horn has a far more brilliant ring than any other horn. And in Güttler's truly spectacular playing, it seems capable of every bravura speed and pitch demand.

The splendid Telemann concerto and the fascinating early Classical work, complete with cadenzas, by the Czech composer Johann Baptist Georg Neruda may be familiar to some specialist listeners in earlier trumpet



State

Zip

versions, but they certainly sound very different and more exciting here. The double concertos by Johann Friedrich Fasch and Johann David Heinichen (with Kurt Sandau seconding Güttler ably, if less extravertedly) are new to me, and while the former is somewhat routine in its bustling Baroque busyness, the latter gives the starring horns some delightful paired-flute antiphony.

R. D. Darrell

PARLEY OF INSTRUMENTS: Purcell's London.

 Parley of Instruments, Goodman and Holman. Martin Compton, prod. Hyperion A 66108 (D).

(Distributed by Harmonia Mundi, U.S.A.) ANON. (c.1690): Sonata "con concertino" in D. BALTZAR: Pavan and Galliard, in C. BLOW: Chaconne a 4, in G. CROFT: Suite from "The Twin Rivals." ECCLES: Symphony for Mercury, from "The Judgment of Paris." KELLER: Sonata No. 1, in D. MATTEIS: Divisions on a Ground, in D minor. PUR-CELL: Trumpet Tune in C ("Cibell").

Webster's can't quite make up its mind about Hyperion's identity: "In Greek mythology, (a) a Titan, son of Uranus and Gaea, and father of the sun god Helios; (b) Helios himself." Well, anyway, the more Hyperion records that come my way from this London firm, the more I esteem it for its aspiration toward the highest quality in every detail. Peter Holman, who is a co-director of the Parley of Instruments and who also plays harpsichord and organ, has provided excellent notes that go DG Archiv one better by listing the tuning chosen by these eight remarkable artists: A = 415 Hz.

This ensemble has borrowed its charming name from "some of the earliest public concerts in the world, given in London in 1676." Henry Purcell's lifetime (1659–1695) coincided with a period during which England suddenly became a world power, with London's flourishing artistic life attracting virtuosos from all over Europe, among them Godfrey Keller from Germany and Nicola Matteis from Italy. Also from Italy came the anonymous but first-rate composer of this Sonata in D con concertino—a pure delight.

These string players' ensemble chords, produced from gut strings on period instruments (or faithful reproductions) and completely free of vibrato, yield an indescribably apt and pleasant sound, sumptuously recorded in—now wouldn't you just know—the Church of St. Jude-on-the-Hill, up in old Hampstead. Crispian Steele-Perkins plays a natural trumpet with breathtaking finesse, and his colleagues match him for quality. This record offers only one minute, eleven seconds of Purcell himself (a charming tidbit, still unpublished and never before recorded), but to quote Holman, "each of these composers wrote at least something worthy of Purcell, and that should be enough for anyone." It should indeed.

Paul Moor

KING'S COLLEGE CHOIR: 17th-Century Italian Sacred Works.

 Briggs; King's College Choir (Cambridge), Cleobury. John Fraser, prod. Angel DS 38086 (D). 9 : CD 47065.

ALLEGRI: Il salmo Miserere mei Deus. FRES-COBALDI: Missa sopra l'aria della monica. MAREN-ZIO: Magnificat (8 vv). NANINO: Adoramus te Christe a 5. UGOLINI: Beata es Virgo Maris a 12.

While the *Miserere* by Allegri gets top billing here, it is Frescobaldi who is the best known of these composers, and not for vocal works, but for keyboard toccatas and ricercares. Moreover, his authorship of the *Missa sopra l'aria della monica* remains shrouded in doubt. Sound thoroughly confusing?

Actually, this set breaks down conveniently into works by a corps of noted Palestrinans (Nanino's older brother, a student of the master, taught Allegri and Ugolini) and the "Roman" composers Frescobaldi and Marenzio, both of whom wrote substantial quantities of secular music. Allegri's Miserere, a falsobordone chant in five parts with an added four-part choir of soloists, stands out for the "forbidden fruit" quality of the ornamented treble part (publication once spelled excommunication from the Church) that extends to an affecting high C. The King's College Choir sings gracefully throughout; the high notes originally meant for the castrati of the Papal Choir are smoothly executed.

In the Missa sopra l'aria della monica, Stephen Cleobury is attentive to Frescobaldi's (or whomever's) rich polychoral sonorities and subtle rhythmic fluctuations. The group carries off the Gloria's antiphonal exchanges, in particular, with aplomb.

Ugolini's *Beata es Virgo Maris*, a stirring departure from his usual adherence to Palestrina's style, uses three four-part choirs for dramatic impact. Its powerful textual emphases and liberally embellished cadences belong to the new trends of the 17th century in Italy.

Angel supplies complete texts and translations. But what has become of the first few lines of jacket copy?

Charles McCardell

HERBERT VON KARAJAN: Encore!

● Berlin Philharmonic Orchestra, Karajan. Günther Breest, prod. Deutsche Grammophon 413 587-2. (D). ⊙ ⊡

LISZT: Les Préludes; Hungarian Rhapsody No. 5, in E minor. SMETANA: Má vlast: The Moldau. ROS-SINI: Wiltiam Tell: Overture. WEBER (orch. Berlioz): Invitation to the Dance.

Herbert von Karajan has touched all of these bases at least once before with the Berlin Philharmonic, in every instance more engagingly, with the possible exception of Les Préludes. Indeed, their poetic performance of The Moldau was second to none in the stereophonic era. Yet here, digitally encoded for posterity to wonder about (rather than at. I should think), everything's teased, layered, and lacquered like a dowager's coiffure. There's some astonishingly vivid detail-divisi cellos in the opening pages of William Tell, for instance-although only when the level is moderate to soft and those actually playing are few. Additions thicken the texture until the entire orchestra produces a sound like brown flour gravy.

One can say for Deutsche Grammophon's recording team in the Neue Philharmonie, however, that the effects they do produce are consistent, not just within the compass of this kleine Büfett, but generally. This time we get the sensation of listening from a seat near the rear wall, high above the stage. Unless both violin sections play loudly, their sound is distanced, while the horns come to us as if from the far end of a gymnasium. The harp, in a reading without ginger or grace of Weber's waltz (by way of shortchanged Berlioz), seems to be suspended above the stage by wires from the ceiling-shades of a caged Gene Tierney in The Shanghai Gesture. Kinky.

Percussion scarcely registers, apart from timpani that sound familiarly shallow. There's only a hint of a triangle in the third portion of Rossini's sinfonia; and the bass drum you must strain to hear in the preceding "Storm." Had Karajan given *Les Préludes* nudges here and there, he might have created a modern counterpart of Willem Mengelberg's hair-raising performance with the Concertgebouw Orchestra nearly 60 years ago. On the other hand, he encourages the *Hungarian Rhapsody* to spread like melted butter—sound for sound's sake. Worse than sectionalized or narcissistic, it's boring. *Und so weiter*.

Roger Dettmer

Arthur	
Baker's	
Makeovers	

R

by

E

Crispin Cioe

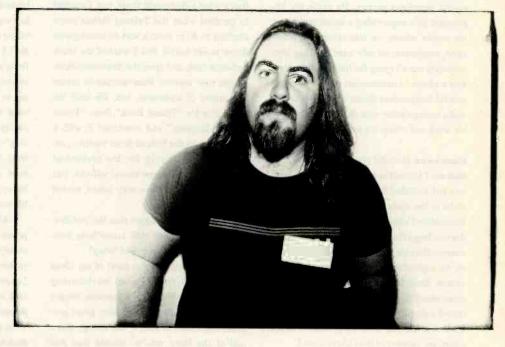
Funk renegade and remixer to the stars turns hot producer.

One fairly constant fact of pop music life is what I like to call the "trickle-up principle": An indigenous strain of rhythm and blues supported by a loyal group of local fans eventually spawns one or two breakthrough hits that turn it into an international trend. The '70s disco boom, for example, evolved from underground gay and black club scenes, where Motown, funk, and the early Philadelphia-soul stylings of produc-

ers Thom Bell and Kenny Gamble-Leon Huff were the records of choice. Classics such as "Backstabbers" and "Love Train" by the O'Jays and "The Love I Lost" by Harold Melvin and the Bluenotes surfaced to become huge pop hits. Then presto: Donna Summer emerged from disco into the mainstream.

B

Drum machines, synthesizers, and the tricky syncopations they make possible virtually dominate pop today. The most radical experiments and manipulations of these electronic sounds start-



ed with hip hop, which had its first national rap hit in 1982 with "The Message" by Grandmaster Flash and the Furious Five. A mere four years ago, rap and its hip hop sibling, break dancing, were strictly inner-city phenomena limited to parties and playgrounds in the Bronx and Brooklyn. Now the antics of fictional heroes Turbo and Ozone are popular movie entertainment in *Breakin*'—and *Breakin*'2, no less.

A few key figures—deejays who both mixed and scratched other people's records—helped develop and transport hip hop from the neighborhoods to the nation: Grandmaster Flash, John "Jellybean" Benitez, and Afrika Bambaataa. They themselves have already managed a smooth transit from local heroes to solo artists who've signed major-label contracts. Bambaataa has also recorded "Unity" with James Brown and "World Destruction" with John Lydon, which makes him the only singer on earth who has met both the Godfather of Soul and punk's prodigal son on their own terms.

Arthur Baker, another former deejay, has become this scene's first real heavyweight in the music industry. Since 1981 his output has included a string of dance hits, the excellent *Beat Street* soundtrack, and fresh remixes of pop hits, the best example

APRIL 1985

being his work on Cyndi Lauper's "Girls Just Want to Have Fun," wherein he transformed a great but overexposed song into a new smash. Baker is now a sought-after producer as well, with a growing list of assignments from mainstream artists.

When I visited him recently at Shakedown Sound, his flourishing midtown-Manhattan 24-track recording facility, Baker was quick to inform me, "I don't do dance remixes anymore, unless I produced the original record. They take too much time, and I'm sick of being typecast as the 'remixer to the stars."" A large man with a long mane of hair, the outspoken Baker has an entrepreneur's boundless energy. He gives the impression he's supervising a small cyclone at his studio, where, on this afternoon, musicians, engineers, an a&r exec, and his own secretary are all vying for his attention. He's also a shrewd businessman who runs a successful independent dance label, Streetwise, and a conceptualist with definite ideas about his work and where it's headed.

Backbeat: How did you get started?

Baker: I worked in a record store in Boston as a kid. I started deejaying in local Amherst clubs in the early '70s when I was going to Hampshire College and got bitten by the production bug after I took a sound-engineering course. Gamble and Huff really turned me on to sophisticated proto-disco production values. Even today, those early Philly Soul sides stand up pretty well. In Boston I produced a single by a group called TJM, which made it to the Top 15 on the *Billboard* dance chart, my version of the O'Jays sound.

Backbeat: Did that success lead you to New York City?

Baker: Not exactly. My wife got a job here in 1980, so we moved. I couldn't really compete as a deejay anymore; I'd been out of the field too long. Though I'd already produced a couple of records, I ended up working for a one-stop record distributor in Long Island City, sweeping the floors and moving boxes around. But I was also going to parties and clubs, and hanging out. I met Tom Silverman of Tommy Boy Records, who had been going to Afrika Bambaataa's dance parties in the Bronx. Tom introduced us; the three of us became friends.

Backbeat: Your career took off abruptly with your first dance/rap productions. Baker: Along with "Rapper's Delight" by the Sugarhill Gang, "Jazzy Sensation" was one of the first rap records. We sold 50,000 copies and couldn't believe it. Then, synthesizer player John Robie, Bam, and I came up with "Planet Rock." That song, meant to be a marrying of the Eurodisco synth sound with rap, was the record that really put us over; it has sold more than 600,000 copies.

When I worked for that distributor in Queens, I used to go to a nearby playground on my lunch break. I noticed that all the neighborhood kids were listening to "Numbers" and "Trans-Europe Express" by the German group Kraftwerk on their ghetto blasters. Friends I'd hung out with at record stores on Fulton Street in Brooklyn said that's what kids bought there, too. I wanted to parallel what the Talking Heads were starting to do in rock: a sort of avant-garde dance music sound. But I wanted the black audience first, and then the downtown-Manhattan new wavers. Bam wanted to create that union of audiences, too. We took the synth line for "Planet Rock" from "Trans-Europe Express" and combined it with a funky beat on the Roland drum machine, using a Fairlight synth for the orchestral string parts and some sound effects; but overall we were after a very spare, spatial atmosphere.

Backbeat: Do you agree that the late-Seventies/early-Eighties club scene here foreshadowed the pop records of today?

Baker: Absolutely. I got most of my ideas from the street, from kids and the clubs they went to. At Manhattan's Funhouse, deejay "Jellybean" Benitez put together great programmed mixes of songs. The energy there and at the Roxy was so intense that you could predict the future musically just by showing up on a hot night. Jellybean would play our tapes, turning the Funhouse into a testing ground for our work before we even committed a mix to wax. Other big influences were reggae and dub, especially in their reverb and more dramatic effects.

Backbeat: How did your remixing talent evolve?

Baker: I'd been doing dance mixes of my productions all along. But Cyndi Lauper's "Girls Just Want to Have Fun" was the first one that people in the business really noticed. I'd already had four recent Top 10 hits in England—"IOU" by Freeeze, "Candy Girl" by New Edition, "Confusion" by New Order, and "Walking on Sunshine" by Rockers Revenge—and I didn't do anything on the Lauper remix that I hadn't already done on, say, "IOU." Only now they were gimmicks added to a No. 1 hit on a major American label.

Backbeat: Yes, but your "gimmicks" add a certain uniqueness....

Baker: I have a good music background and an understanding of an artist's integrity. On Lauper's "Fun" I used an Emulator synth, which has the capability to program sampled sounds, for the bells and "prong" tones and for that repetition of the word "girls." I also added some new synth lines to the track.

Bruce Springsteen liked that remix, and Joe McEwen, an a&r guy at CBS, thought Bruce and I would get along. I grew up with his music; he means something to me beyond just a paycheck. I wouldn't use a cutesy Emulator solo on a Springsteen song. On "Cover Me" I brought in a Jamaican bass player from a group called Mojo Nya and percussionist Bashiri Johnson. And as I was listening to the master tape, I discovered an unused track of fantastic backing vocals by Jocelyn Brown [whose "Somebody Else's Guy" was one of last year's brightest r&b hits]. So I brought them up in the mix for a duet with Bruce. My version has a bassheavy, reggae-rock groove. [See Vince Aletti's review in "The 12-inch Report."]

All my records feature an attack. Other producers might achieve a better sound technically, but I take chances and go for a feel rather than a specific sound. I tried to make Lauper's record—which didn't have an attack and was just about fun—more fun.

Backbeat: Was Springsteen supportive of what you did?

Baker: Very much so. I've read in some of his interviews that after working with me he realized he could take more shots with his music; I take that as a compliment. Actually I think he could reach even more people, including black people. Of course, he'd have to make a few concessions to reach that market. I hope I brought them a little closer. Both would benefit; he's such a great artist. **Backboat:** How did you get involved in Hall and Oates's *Big Bam Boom*?

Baker: I co-wrote and co-produced Diana Ross's "Swept Away" with Daryl Hall. Then John Oates brought me some tunes he thought would be right for the Stylistics' *Some Things Never Change*, which I was producing for Streetwise. So I met them both on the song-writing level. One of John's tunes was "Out of Touch," which really *(Continued on page 99)*

Declaration Of Independents

The simall, independent record companies that started the 12-inch market and still do the bulk of their business there have been all but buried in recent years by the massive output of larger corporate labels that are just beginning to appreciate the format even if they don't yet understand its consumers. But the independents do understand: They respond to the market at street level, and their current chart resur-

boom! Kaboom!" they shout. But the bombast is cut by the richness of the track—best appreciated on the mostly instrumental B-side version, where Mondale and Reagan join the sparse chorus of voices and without missing the point, you can dance these troubles away.

Vince

Aletti

Their "Rock Hard"

(Def Jam 002) ap-

proaches the "Rock

Box" synthesis from

the rock side, so it's

messier, meaner, and

louder, but it has the

same kick, the same

cold minimalism: gui-

tar, drums, voices, at-

titude. Three other

solid cuts-"Party's

"Beastie Groove,"

and an instrumen-

tal-may not bear out

the claim that these

are "not just B Boys,

stars," but the disc

certainly establishes

them as the masters

we're real

Rough,"

rock

Gettin'

by

More punk funk: The Beastie Boys, who parodied rap last year with "Cookie Puss," are back sounding like a hardcore Run-D.M.C.

gence is a healthy sign for the business and the music. Biggest hit: "Roxanne, Roxanne" (Select 62254) by U.T.F.O., a young rap trio whose debut, "Beats and Rhymes," was one of last year's best beat bops. They top themselves here with a rapid succession of chanted rhymes intended to impress a new girl on the block. Roxanne turns two down, then stands up the third even after he gets over with a hilarious hip hop rush of medical terminolo-

COUNTERY GELECT RECORDS



At press time, U.T.F.O.'s "Roxanne, Roxanne" had inspired three answer raps.

gy. But listeners aren't likely to be so cold to U.T.F.O.—not in the face of all this wit and sass (or the crazy burst of pig latin and candy-bar rhymes that enliven the other cut here, "Hanging Out").

Rockmaster Scott and the Dynamic Three prove equally agile on "Request Line" (Reality 230), a more elaborate production that cops the format of a call-in radio show, with each of the three MCs boasting to the girls while Rockmaster scratches things up. The raps are snappy but standard; it's the setting that makes "Request Line" click—the voices of the callers, the lacquered sheets of synth noise, the bright clicks that stitch it together. But what really wins me over is the break at the end when all three rappers come back to repeat their boasts at once. The words clash and tumble: urban jabberwocky to the beat.

Time Zone gets real serious in "World Destruction" (Celluloid 176), a rap rant delivered by the unlikely but quite compatible team of Afrika Bambaataa and John Lydon. Produced by Bill Laswell of Material and Bambaataa in an apocalyptic dance-floor style—dark, almost religiously heavy, but explosive—"World Destruction" brings funk and punk together for a last-gasp stomp, an angry howl. In a simultaneous chant, Bam roars and Lydon squeals, both ticking off the familiar doomsday signposts with a mix of righteousness and relish: "Kaof white-boy rap and roll. And more Ron Reagan: For those who just can't get enough, here's our leader stumbling and stuttering through a jumpy electronic track on snippets of tape. Air Force 1's "See the Light/Feel the Heat" (Streetwise 2238) isn't as pointed and lively as Bonzo Goes to Washington's "Five Minutes" (Sleeping Bag 13), which concentrates on that "joke," but it darts around the issues of arms control and The Bomb and gets a few stings in among the synths. With mixes by Arthur Baker and edits by his Latin Rascals, we even hear Reagan turn B Boy himself and ask us to "G-g-g-get down."

Two recent series of 12-inch releases on major labels prove the big guys can be savvy about the format's creative and commercial potential, too. Since the first 12-inch singles from *Purple Rain* and *Born in the U.S.A.* came out last summer, Warner Bros. and Columbia have followed up with a steady flow of Prince and Bruce Springsteen material essential to the collection of any true fan. The Prince discs are notable for their B-sides: Instead of the usual throwaway instrumentals or dubs, "Let's Go Crazy," "Purple (Continued on page 99)

Vince Aletti lives and works in New York City and writes for The Village Voice.

W

Yoko Ono On Her Own Merits

E



YOKO ONO: Then & Now.

Barbara Graustark, dir. and prod. Media Home Entertainment M 437 (\$39.95).

YOKO ONO: Every Man Has a Woman Who Loves Him. • Various prods. Polydor 823 490-1. •• •

"No one can see me like you do," Yoko Ono sang on *Season of Glass*, her eulogy for John Lennon. As she relied on his vision in life, in the four years since his death Ono has recorded or completed several albums suggested or begun by Lennon, and she has written new songs that show an increased reliance on his perceptions and direction. In two recently released projects—*Then & Now*, a video biography, and *Every Man Has a Woman Who Loves Him*, an album of Ono's songs covered by various artists— Ono appears very much the way Lennon saw her, as she saw herself through his eyes.

Then & Now traces Ono's history from childhood through her first years as an avant-garde artist in her twenties, showing these years as a prelude to Ono's most important work: collaborating with and educating her husband. For Every Man, Ono has followed Lennon's plan; he felt that prejudice against Ono's songs would be overcome if a diversity of more-accessible artists performed them. And just as Lennon imagined,

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YOKO ONO: Then & Now; Every Man Has a Woman Who Loves Him.

ROCK AND ROLL-

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Jazz

CLIFFORD BROWN: Complete Blue Note and Pacific Jazz.

RONALD SHANNON JACKSON: Pulse.

JACKSON AND THE DECODING SOCIETY: Decode Yourself.

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JIMMY LYONS: Wee Sneezawee

JAMAALADEEN TACUMA: Renaissance Man

29th STREET SAXOPHONE QUARTET: PointIllistic Groove.

ETHEL WATERS: Ethel Waters.

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84

SHEBA

these two glimpses of Ono's life and work present her not as the tough businesswoman-empire builder or dragon lady depicted by journalists and Beatles fans, but as a shy and vulnerable artist.

The paradox of Ono's received fame and the relative obscurity in which she has struggled to be heard, first as a conceptual artist, later as a songwriter/singer, would probably have silenced anyone else. But as Paul McCartney finally admits in this video, he and others misunderstood Ono's need to "be and present herself," branding her as a hard and aggressive woman. It has taken nearly two decades, but she has at last achieved a small vindication. Then & Now proves that her work, once dismissed as a novelty or overlooked entirely by the anti-Ono Lennonists, is as self-reliant and sturdy as Ono herself. "We were artists, so we had a need to communicate," she says, matter-offactly explaining the couple's controversial "art events" of the '60s. Today, she carries on without him; despite Lennon's presence in the biography and his performance on Every Man of the album's title song, both projects are definitely hers. They succeed and fail on her merits alone.

The simple failure of Every Man is that as an album it lacks balance and cohesionalmost a given for any project of this nature. Though Roberta Flack's version of "Goodbye Sadness," gently reggaed and harmonized à la the female a cappella group Sweet Honey in the Rock, and Roseanne Cash's pleasant pop-country reading of "Nobody Sees Me Like You Do" touch on the tender side of Ono's lyrics, their disparate styles are distracting. Two of the strongest performances are not coincidentally of two of her best songs: Elvis Costello's "Walking on Thin Ice" and Alternating Boxes' "Dogtown," each a straightforward re-creation of Ono's own version. As a compilation, the disc falls short, weakened by the rhetorical antidrug, pro-youth "Now or Never," recorded c. 1972 by a more naive Lennon and Ono using the children's voices of Spirit Choir, and by two pretty but undistinguished choices of Harry Nilsson's. When the songs bite-Nilsson's torn version of "Loneliness" is the best track on the album-Ono's anguish and strengths as a lyricist cut through. Though she provides an edge in readings of her gentler songs, the lyrics of "Silver Horse" and other slow numbers here sound childish and disconnected by comparison. Ono has always looked for humor and dignity in the ordinary. She succeeds because even her most refined artifice feels unforced. It's hard enough to wring real emotion from sentimental material; to wrest it from the childlike questioning and reversals of Ono's best work is a challenge even her staunchest supporters are unequal to.

The simple success of Then & Now is that-despite the careful knitting of grainy photos and out-of-focus home movies with crisp video interviews and news clips-Ono's life and art are seen as herky-jerky juxtapositions, not as a seamless, smooth whole. A real life, a real journey, hampered and pampered equally by her wealth, her love, and her public. In the recording-studio footage and the background soundtrack that acquaint us with some of her strongest songs, Ono's music stands up, and that, ultimately, is her triumph. New York Times critic Robert Palmer comments on her influence on new wave vocalists; art critic Mario Amaya recalls the bravery and vision of her 1966 work Cut Piece (which we see performed by both Ono and Charlotte Moorman); and Lennon admits that his ego and chauvinism probably held back Ono the artist. At the video's end, Ono asks the unseen interviewer if she has made herself understood. Even as she speaks-part challenge, part plea-her music, lingering in the background, answers ves.

Leslie Berman

FAT BOYS: Fat Boys.

⊙ Kurtis Blow, prod. Sutra SUS 1015. . (1790 Broadway, New York, N.Y. 10019.)

How ignominious: Three ace rappers make a whole album of worth-it raps, and their names appear *nowhere* on the record. Truly, the Fat Boys are a concept—think Fat Albert with logorrhea, multiply by three, and dress them up in goofy costumes. Word has it that the folks who brought us Saturday morning's *H. R. Pufnstuf* are working on a cartoon show based on this most animated threesome. But even the Monkees got credit lines! The parents of Mark Morales, Damon Wimbley, and Darren Robinson deserve better.

Okay, so rappers Grandmaster Flash and the Furious Five still hold the title, with an amazing rhythmic attack and a rocksteadiness Art Blakey would appreciate. After that, Run DMC, trashing the brilliance they couldn't pocket, just went for bombast, that oomph Ratt would appreciate. But the Fat Boys make hay goofing like three cucamungas seriously on the loose, as if the proper response to the beat-box tremors all over town were a giddy laugh. They catch on to the outrageousness of suddenly being the center of attention just because you've got a microphone.

The material on Fat Boys is capital, the band as fresh as this morning's Dunkin' Donuts. But the record wallops at least as much because what these three have-most of all-is ample character. The title tune's rap is a sad tale about an all-night food binge that ends when the emcee gets the bill and boasts, "I don't pay for nothing/I'm the king of the slop!" He gets locked up. "I'm a little overweight, but I'll pass/I got class," one of them says, after which some feline backups vouch, "Fat boys, they give you much, much more." Their girth more than recontextualizes their reported luck with the ladies; these three make you believe their romantic appeal is a fat accompli. Standard operating procedure for producer Kurtis Blow is to swathe their vocals a couple of layers thick with sharp bass and synthesizers, contrasting high, impersonal voices with all that pound cake below.

The record deserves at least a footnote in the history of whacked-out pop because of its least studio-concocted ingredient: Darren

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ular recording usually are identical except for
differing prefixes or suffixes. Catalog numbers of
formats other than the reviewed format are

formats other than the reviewed format are printed only if their basic numbers differ substantially from that of the reviewed format. Arabic numeral in parentheses indicates

number of items in multi-item set. Style Note: In conformance with prevailing us-

age, titles of all formats in High FloetTry text are now italicized (e.g., *Abbey Road*), and individual songs of selections appear in quotation marks ("Come Together"). Robinson, a/k/a the Human Beat Box, makes these totally foolish grade school belching sounds, taps his throat to get differently pitched pops, and sputters like Charlie Callas imitating a bass drum. On an album of state-of-the-art rhythmic constructions, his nutso noisemaking is the clincher. Pretty awesome, all in all. Look for the video, in which the Human Beat Box does his kind of break dancing. As for the cartoon, 1 wait raptly.

RJ Smith

JOHN FOGERTY: Centerfield.

John Fogerty, prod. Warner Bros. 25203-1.

With Centerfield, John Fogerty breaks a self-imposed nine-year recording silence, and from the first menacing guitar tremors of "The Old Man Down the Road," it's as if the (not so) old man who wrote "Born on the Bayou," "Run Through the Jungle," "Proud Mary," et al., never left. In a way, he hasn't: No American rock band has equaled Creedence Clearwater Revival's run of 20 Top-20 singles (in just four years), and though groups from X to Rank and File have tried, none could duplicate CCR's distinctive mélange of black country-blues and white rockabilly laced with a shiver of dread. On "Old Man," Fogerty yowls about those Creedence nemeses-hellhounds and evil spirits-as if he were settling old scores; he's still rasslin' with the Devil.

Although he plays all the instruments here, you'd swear he was a band on the rambunctious opening trio of "Old Man," as well as on the deliciously cheesy "Rock and Roll Girls" (featuring his first sax solo) and the country-plunked Elvis ode "Big Train (from Memphis)." But after nine years, the recording studio is a different world, and half of Centerfield finds Fogerty experimenting with new technology. Some of it, like the whistling synthesizer line of "Zanz Kant Danz," works; some, like the clap-track of the title song, is too cute. If that cut and "I Can't Help Myself," with their "Hey, I'm alive!" enthusiasm, tip the album toward the lightweight side, they also capture Fogerty's understandable relief at just getting the thing made. He had not only those CCR hits to live up to, but his reputation-which grew to near-myth after the band's demise-as a socially conscious working-class rock hero. With his big political statement, "I Saw It on TV," tracing the public loss of faith in government from Vietnam to Watergate to the arms race, Fogerty signals that he accepts the mantle and the responsibility. Go get 'em, John.

Joyce Millman

EURYTHMICS:

1984 (For the Love of Big Brother). O David A. Stewart, prod. RCA ABL 1-5371. ••• O

This is a soundtrack without a film. Only about five minutes of this music actually made it to the two-hour movie; "Sexcrime-1984," misrepresented in 1984's ads as the title theme, is never heard at all. Clearly, someone is guilty of hypecrime. Eurythmics Anne Lennox and David Stewart composed to a working print and were themselves surprised at how little was used. But those who journey to the theater will understand why: Except for snatches of minimalism, perhaps, the best background for this barren, bleak film is silence.

The Eurythmics do capture some of the politically infused paranoia and mechanistic urbanism expressed by George Orwell, but the music is illuminated by his story rather than vice versa. Though there are a few freestanding, doubleplusgood songs like "Sexcrime," "Julia," and "For the Love of Big Brother," the purely atmospheric "Room 101" has little impact without visual or literary associations. Listening to this ominous cut is like mindlessly gulping handfuls of bonbons that you find out later were chocolate-covered bees. When you know that Room 101 is a torture chamber, the song makes you a bit sick to the stomach, but at least you won't forget it. Other selections also depend on foreknowledge, and some aren't saved even then. So, in all fairness to the Eurythmics, read the book or see the film first.

Susan Galardi

SHEILA E .:

The Glamorous Life.

⊙ Sheila E. and the Starr Co. prods. Warner Bros. 25107-1. .

Prince has popped some pretty short fizzes in his day, but his latest protégée sounds like she'll be bubbling over till kingdom come. Hardly a neophyte, percussionist Sheila E. teethed on her daddy's timbales (Bay Area's Pete Escovedo), apprenticed with his groups, Santana and Azteca, and was fast making a name for herself as a side musician for Diana Ross, Marvin Gaye, and Lionel Richie, among others. But then in 1984, she got bonged with the purple wand and suddenly—even to her family's surprise—out gushed a white-hot Latin geyser, an electrifying soloist who could also sing, dance, write, produce, and cavort sexily across stage and screen. Her smashing debut (written in the back of Gaye's tour bus on a Linn machine and a four-track recorder) may feel a bit skimpy (after all, six songs do not a gig make), but *The Glamorous Life* is everything you ever dreamed it would be, and best of all—it leaves you wanting more.

The Amorous E may or may not need a inan's touch, but you're sure to find lip prints all over her disc. Prince is a Prince is a Prince (however uncredited), and one is hard put to call the subliminal mouth noise and tapebending babble on "Strawberry Shortcake" by any other name. Which is not to say that she and he don't sink gloriously down into the dirtiest muck south of Minneapolis. Though the funk is synthed, the spirit is pure *macha*, and Escovedo's hot percussive overlays give HRH more than enough to grunt against.

Fortunately, Miss Tight Butt (as she calls herself) has more on her mind than lingerie. Her quirky musical imagination likes to pit sweet against sour, and can dredge up the oddest orchestration. ading her sidemen off in kinky pursuits. David Coleman's cello wanders myopically through "Oliver's House" (an otherwise sassy dance tune) looking for a key change that doesn't exist, while Larry Williams's anxious sax careens around her barebacked beat screeching like a rhino in heat. Even cheekier is the Victorian accordion roll that rips open the ballad "Next Time." Between the rhythm and the rhyme falls the sardonic wit of a Lady fed up with little red Corvettes. And in a girlish voice coated with charm, she oh-sogracefully drops a wad of ice down the front of His Majesty's trousers: "If you weren't so tired/we'd be on the floor/we'd be making love right now/Next time, wipe the lipstick off your collar."

In general, though, Escovedo's vocals, still a bit gun-shy, don't pack the punch of her sticks, but the package as a whole works. When she learns to trust her innate vitality, she won't resort to time-dishonored tricks like licking her lips and twirling her sticks (which she nearly drops in the video) to make her musical points. Sure, there are men out there who play as well, if not a whole lot better, but there's more to center stage than chops. Just give her time, money, and not a little space.

Pamela Bloom

MOTORHEAD: No Remorse.

O Various prods. Bronze 90233·1 H. ⊡ : 790233·4 H. (Distributed by Island.)

Ostensibly a heavy metal band, Motorhead overlap so many genres that categorization is difficult and misleading. Basically, they're extremists: By taking punk, metal, and noise to their limits, they've staked out their own genre, typified by extreme speed, energy, and volume. This double greatest-hits package (spanning six of the band's nine years) may render all other punk and heavy metal records redundant. It *could*, anyway.

Most of the band's so-called peers make pathetic claims to being the loudest, the fastest, the most reckless, etc. But only Motorhead, with their biker leather and T-shirts, greasy long hair, Jack Daniels bellies, and glazed eyes, really pull it off. These Englishmen summon up rock-hard slabs of guitar, a bass sound that's half machine gun and half file-against-string, amphetamine-induced rhythms, and the hoarsest vocal imaginable. Then they bash it all into compact packages of distortion and high energy that some people might call songs. Despite the glut of heavy metal bands on the market, Motorhead's ripping, dive-bombing style is unique-and even more remarkable, it's not dumb. Forty-year-old bassist, vocalist, and kingpin Lemmy Kilmister's odes to the fast and sleazy life are strangely articulate, and his inventive blend of punk, metal, hard rock, and trance-assaultive psychedelia (perhaps a holdover from his half-decade stint with space rockers Hawkwind) is too singular to be dismissed as accidental

Kilmister's vision has survived numerous lineups intact: On *No Remorse*'s 24 tracks he's the only stable element. The primary band (1977–82) features guitarist Fast Eddie Clarke (who later founded Fastway) and drummer "Filthy" Phil Taylor. Guitarist Brian Robertson (ex-Thin Lizzy, Wild Horses) replaced Clarke in 1983 for one album (represented in a pair of songs). And the latest Motorhead lineup—Kilmister, drummer Pete Gill, and guitarists Phil Campbell Enjoy Нієн Гіреліту for a full year for only \$6.98—12 issues at 50% off the regular subscription rate. You'll receive a full year of the latest news and reviews

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and Wurzel—makes an impressive vinyl debut with four new tracks. No matter who's playing or what the tempo is, the dynamics never vary: It's all overdrive holler rock.

We're dealing with some kind of ultimate here. This is volume rock's final frontier, and I highly recommend *No Remorse* to everyone. Especially to those who've heard this elusive sound in their heads and didn't think it actually existed.

Tim Sommer

ROCK AND ROLL-THE EARLY DAYS.

Patrick Montgomery and Pamela Page, dirs.; Patrick Montgomery, prod. With Elvis Presley, Jerry Lee Lewis, Buddy Holly, Bo Diddley, Big Joe Turner, and others. RCA/Columbia Pictures Home Video 20379 (Beta); 60379 (VHS): \$29.95.

Rock 'n' roll is getting on in years: old enough to have not one but many histories, yet wily enough to lie about its age to every new wave of fans, each of whom knows *all* there is to know, certainly all that really matters to them. This makes the rock historian's task particularly difficult, because no one likes to hear that they were born yesterday—especially if they were. And most rock fans, whatever their age, expect to be entertained first and later for the edification.

This means that in my house, at least, would-be historians get a couple of points for trying (+2). It also means that, given the constraints of the mass marketplace, I can usually predict the net result: -2. Rock and Roll-The Early Days, an hour-long independent documentary covering the years 1954-59, was made for the home-video market rather than for network prime-time, which means it can hazard some intelligence and some content (+3). Alas, writer/directors Patrick Montgomery and Pamela Page burden earnest narrator John Heard with some of the most creaking conventional wisdom masquerading as incisive analysis this side of Morley Safer. Grappling with the issues over mid-Fifties clips of Gale Storm and smug, poolside conspicuous consumption, Heard intones, "For the most part, this music reflected the tastes of a growing white middle class enjoying the fruits of postwar prosperity and progress" (-1), all the while squinting at the horizon, straining to spot the emergence of a "new social class, the teenager, with more leisure time and money to spend" (-1). Scintillating, eh? An equal-opportunity pundit, Heard adroitly points out that "the blues gave expression to the black man's hardships as well as offering escape from them" (-1). *Now* do you understand Robert Johnson?

But shooting the fish in this boiler-plate barrel is only slightly more fun than listening to them swim by in the voice-over, so let me enumerate the real, if modest, pleasures of *Rock and Roll—The Early Days*. It bestows adequate credit on the oft-slighted Bill Haley and Alan Freed (+1) and contains short but sweet vintage clips of: Ernest Tubb and Big Joe Turner (+1); a baleful White Citizen announcing an effort "to do



Big Joe Turner: Jellyroll becomes rock 'n' roll.

away with this vulgar, animalistic, nigger rock and roll bop" (+1, -1); Buddy "He Came and He Went" Holly singing "Peggy Sue" on the Ed Sullivan Show (+1); Carl Perkins chatting amiably with Perry Como and then stepping out in his "Blue Suede Shoes" (+1); Bo Diddley, solemn as the proverbial judge, playing "Hey Bo Diddley" (+1); Don and Phil Everly, twenty and eighteen, respectively, introduced by Julius La Rosa $(-\frac{1}{2})$ and effortlessly cruising through "Bye Bye Love" $(+1\frac{1}{2})$; and Jerry Lee Lewis schmoozing with legendary Memphis DJ Dewey Phillips and burning up "Great Balls of Fire" (+1).

The equally real, if modest, problems aside from the script—include Steve Allen's smarmy recitation of "Be Bop A Lula" (-1); a mismatch of music and information in the narrative transitions—"Bottle Up and Go,"

for example, is not hardcore Chicago blues (-2); and the unfortunate practice of splicing performance clips of different songs together over a single, significant track, particularly disconcerting in the segments on black harmony groups, Elvis, and Chuck Berry (-4). The tape ends dourly, sermonizing that "Gradually but thoroughly, the hard edges of rock 'n' roll were eradicated, the strong regional accents silenced, the spontaneity and spirit of rebellion stifled." The suggestion, in the mid-Eighties, that no wonderful rock 'n' roll would outlive the Fifties is so silly that I won't even bother to subtract any points. This leaves us, if I can still add, just about even, which, in the slot-machine world of pop history, is a pretty fair place to end up. Jeff Nesin

GEORGE JONES:

George Jones Salutes Hank Williams. O Barry Feldman, reissue executive prod. Mercury 822 646-1.

George Jones cut his first country sides for Starday in 1954. He switched to Mercury in 1956 and cut this album (with two more sides left off the Polygram reissue) for them in 1960. But it wasn't until he went over to United Artists in 1962 that a wholly distinct George Jones style gelled.

Until then, he was very much a product of his influences: Bill Monroe, Floyd Tillman, Lefty Frizzell, Roy Acuff, and, of course, Hank Williams. When Jones sang his own songs, he didn't really sound like any of those men; but when he sang *their* songs, the strain was more apparent. The truth is that even when he sought to emulate his idols, his own emerging style invariably kept getting in the way.

Take "Hey Good Lookin'": It begins with George phrasing just like Hank, but soon he's tugging at words, giving the song a triumphant (and lascivious) edge Hank's version only approached. "Cold, Cold Heart" is virtually identical to the original until the end, when George breaks into a sob Hank only suggested. Whole lines droop like a broken heart on "There'll Be No Teardrops Tonight," on which Jones provides further contrast by descending from a country tenor into a lower register Williams could never reach. On his sighing version of "Honky Tonkin'," his voice breaks in a way that suggests the pain as well as the pleasure of his evening's endeavors.

All the same, it remains apparent that

Jones is not yet a fully matured singer. His interpretation of "Howlin' at the Moon" fails to convey any of its humor. Yet a few minutes later, on "Why Don't You Love Me," he not only elicits the desired chuckle, but does so in what is now recognized as the classic Jones style: He bites one word in half while stretching the next past its snapping point. *Salutes* is still more Hank Williams than it is George Jones, but George pokes through on his own often enough. And both men are hard acts to follow.

John Morthland

THE GOSPEL AT COLONUS.

 Bob Telson, Daniel Lazarus, Gary Katz, and Donald Fagen, prods Warner Bros. 25182-1.

Last year I was skeptical when the Brooklyn Academy of Music, Lee Breuer, and Bob Telson gave black spiritual music a classical imprimatur with *Gospel at Colonus*, an adaptation of Sophocles' *Oedipus at Colonus*. Gee, this sounded like the gospel equivalent of jazz with strings. But the raves piqued my curiosity, and the original cast recording with Clarence Fountain and the Five Blind Boys of Alabama, J. J. Farley and the Original Soul Stirrers, the J. D. Steele Singers, and the Brooklyn Institutional Radio Choir—dispels my reservations completely.

Starting with the guitar-accompanied '50s sound of the Blind Boys, *Gospel at Colonus* provides a manageable overview of the genre's last 30 years, from *a cappella* harmonies, gently rocking blues, and foot-tapping r&b accompaniment to the soulful pop and massed choirs of today. This is no staid anthropological analysis, however. Gospel is a narrative, emotional music for which reflective sentimentality is anathema. Much like its secular twin, blues, gospel shows more concern for the transcendent moment. The significant measure of *Gospel at Colonus*—and the reason it holds up as a record is the urgency of its redemptive passion.

The album and play parallel a black church service, complete with congregational call-and-response. Singers such as the fresh, bittersweet-voiced Javatta Steele, the raspy-throated Fountain, and the urbane, Southern-soul stylist Sam Butler emerge from swelling choruses with vocal lines that are as much lead as they are obbligato. On the riveting "Stop, Do Not Go On," Butler and Fountain intertwine phrases over a layered two-part chorus that evokes both a mesmerized congregation and soul showmanship. Later in the service, Fountain breaks into a song-sermon, "A Voice Foretold," followed by the rousing "Never Drive You Away," where the spinning falsetto holler of Martin Jacox is especially poignant.

Although the album cites four coproducers, including Donald Fagen, the magic is in the voices. The instrumentation, which includes crisp horns, steel guitar, and harmonica, is incidental, although Butch Heyward's supernal organ and Butler's twangy guitar kick the beat along under the harmonies. And though the album doesn't lead to a definite conclusion, the music washes over you so forcefully throughout that you hardly notice.

Don Palmer



JAZZ

RONALD SHANNON JACKSON AND THE DECODING SOCIETY Decode Yourself.

Bill Laswell, prod. Island 90248-1.

RONALD SHANNON JACKSON: Pulse.

O David Breskin and Ron Saint-Germain, prods. DAD Celluloid CELL 5011.

Ever since drummer Ronald Shannon Jackson audaciously and brilliantly enlivened Cecil Taylor's 1980 *The Cecil Taylor Unit* (New World) with some rambunctious, looselimbed shuffles, he has been touted as *the* free-jazz drummer. When considered togeth-

In the past, the Decoding Society has handled Jackson's complex, tightly wound compositions inconsistently; overambitiousness sometimes leads to a clutter of ideas. While Decode Yourself is a more streamlined effort by the group, it's not a record of note if your interest is strictly Jackson's playing, because he has harnessed himself by concentrating on coloration with acoustic and electric drums. Jackson, however, covers for this by expanding the group to include trombonist Robin Eubanks, violinist Akbar Ali, and keyboardist Onaje Allen Gumbs, whose personalities and execution enhance his concept. The string section, especially the flamboyant, incendiary guitarist



Decoding Society leader Jackson is also a one-man band.

er with Jackson's work with Ornette Coleman, Blood Ulmer, and the late Albert Ayler, there's a certain legitimacy to the claim, because he has proved himself a true heir of the disciplined, play-what-you-feel-not-whatyou-know school of music. With the Decoding Society, Jackson draws on his Texas blues heritage to incorporate all the world's blues, be it a cathartic Eastern melody, a lilting, hypnotic African dance rhythm, a powerful, Chick Webb-ish swing lick, or a highstruttin' march-cum-boogaloo. Though he's a fluid, whirlwind drummer, Jackson is attuned to the orchestral possibilities of his instrument. With the Decoding Society, he has created a rich mélange of tart suspended harmonies, frenzied high-tech-sounding guitar, dual electro-funk bass lines, and rhythms-all weighted equally.

Vernon Reid, anchors and swings the band, whether on Hookeresque boogies like "Software Shuffle," the hip-hop of "Snake Alley," or the oozing, wobbly "Undressing."

On Pulse, Jackson is a one-man band. He comes across as the Stephen Foster of vernacular American rhythms, as he dredges his Texas roots to bolster the poems of Sterling Brown, Robert Hayden, and Michael Harper, not to mention Poe and Shakespeare. As on Decode Yourself, Jackson opens with an homage to bop, using Kenny Clarke's patented "mop, mop" figure to introduce "Circus of Civilized Fools." The best rolling rhythms of "Fools" cleverly link march time to no time. The explosive "Richard III" and "The Raven" are fury transformed into rant, which is not a pretty sound. Side Two, however, is more traditional. Like the music of Dr. Isaiah Ross (blues master of the one-man band), Jackson invests a churning locomotive beat with a joyous, animated quality. His accompaniment brings to life the blues heroes of "Puttin' on Dog" and "Slim in Atlanta." The surging, funereal cadences of "Last Affair: Bessie's Blues" sing the praises of a fallen idol. In between, Jackson toasts his African heritage and Buddhist beliefs with sputtering, fat-rumped solos. *Pulse* is more musical than many other solo albums by jazz artists; listen to this one strut and communicate his stuff.

Don Palmer

CLIFFORD BROWN: The Complete Blue Note and Pacific Jazz Recordings.

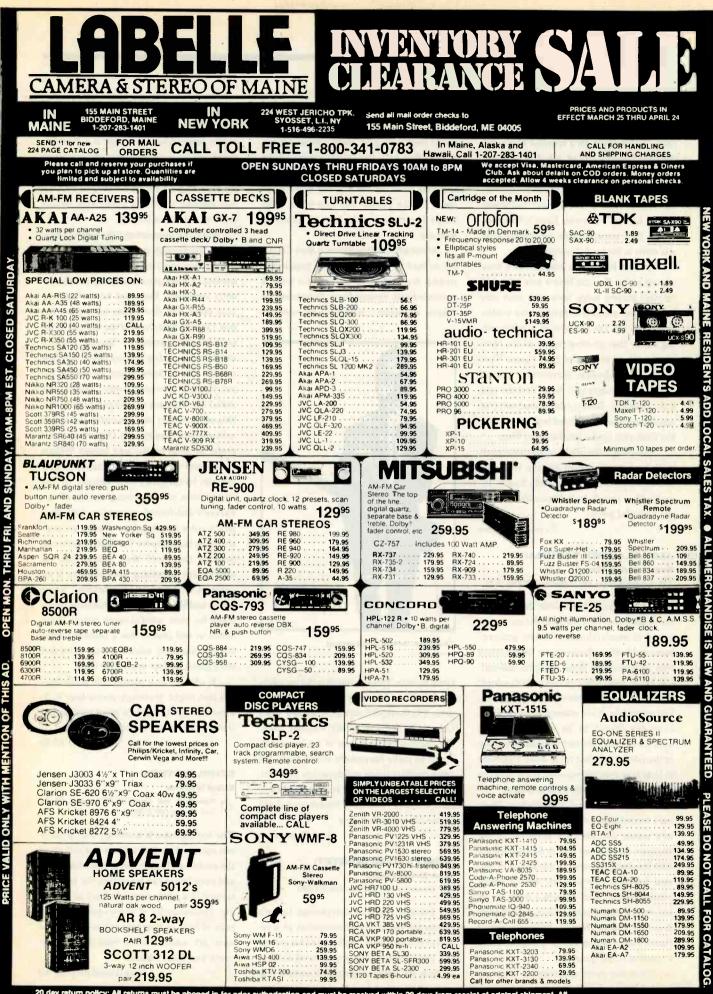
 Michael Cuscuna, reissue prod. Mosaic MR 5-104 (5). (197 Strawberry Hill Ave., Stamford, Conn. 06902.)

The upward trajectory of Clifford Brown's brief career makes his untimely death that much more tragic, and every note of his recorded output all the more valuable. That covers only three years, from his first fullfledged jazz session on June 9, 1953, to a jam taped the night before he was killed in a car accident. Despite his shooting-star appearance on the scene, Brown's genius was not overlooked; besides his legendary alliance with Max Roach [see "Percussion Sweet and Bitter," September 1984], the trumpeter played with, among others, Tadd Dameron and Art Blakey, led his own dates, including a "with strings" session, and performed with singers Sarah Vaughan, Dinah Washington, and Helen Merrill.

But volume is only half of this amazing story. The real miracle is the consistent quality of Brown's playing: On any recording, you will hear breathtaking tone, technique, energy, and ideas. This compilation of his earliest sessions proves Brown had no apprentice years. When he began making records, he was already a great trumpeter; by the time he died, he had become the best.

Complete covers little more than a year. Two long-out-of-print albums—one co-led with Lou Donaldson, the other Brown's first as a leader—are gems, as are sideman stints with J. J. Johnson, a West Coast encounter with Zoot Sims, and all the wonderful live-at-Birdland dates with Art Blakey's not-quiteyet Jazz Messengers.

The earliest tracks are among the most rewarding—certainly the most startling. Here is a twenty-two-year-old Brown play-



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Pictures are for Rainchecks available upon re ing with the snap, drive, and instantly recognizable, magisterially round tone of his "mature" years. Just two months after the thrilling Donaldson and Johnson sessions, Brown led his own, playing the roles of both high-powered blower ("Hymn of the Orient" and "Cherokee") and lyrical balladeer ("Easy Living," "Brownie Eyes"). This marvelous date encapsulates everything that will come in the next three years.

The live Blakey set was Brown's coming-out party. You can hear a new school of trumpet playing being born with each note he blows; his sound is so ripe it seems to blossom in the air. The last session is a fascinating oddity that dissolves many of the cherished notions about the East Coast/West Coast musical division. Surrounding himself with both transplanted New Yorkers and L.A. coolsters, Brown, the embodiment of aggressive East Coast hard bop, transforms the California studio into Birdland West.

Complete is the perfect companion piece to Polygram's excellent reissue series of Brown's later Emarcy work with Roach. Together they provide an indispensable picture of a youthful genius.

Steve Futterman

JAMAALADEEN TACUMA: Renaissance Man.

Jamaaladeen Tacuma, prod. Gramavision GRCD 8308. 🔿 📼

Ornette Coleman's harmolodic theory of improvisation may be difficult to define, but its sound is unmistakable: Electric guitars, bass, and horns collectively vie for attention over insistent funk drum rhythms, alternating their prescribed accompanist/soloist roles in a frantic game of sonic ping-pong. Unfortunately, it is a massed sound doomed to muddy fidelity by its very nature. But with the accustomed instrumental hierarchy broken down, it is that much more important to hear how every component fits in order to understand harmolodic's skewed logic.

The CD release of Jamaaladeen Tacuma's second album clarifies the puzzle of this new music. *Renaissance Man*, like *Show Stopper*, devotes one side to Jamaal and his funk band and the other to a grab bag of musical settings. This time the bassist places himself among such disparate company as his Prime Time boss Coleman, art-rock drummer Bill Bruford, Latin percussionist Daniel Ponce, and on the LP's longest track, a classical string quartet.

While not every cut vibrates with har-

molodic fury, each is blessed with remarkable clarity; both acoustic and electric instruments bask in weighty, radiant tones. On the more radical cuts, this fidelity makes all the difference; when you can *hear* the drums and bass mesh, or the way the horns leave space for the guitars and vice versa, Coleman's theory begins to lose its imposing mystery.

Above all, the *Renaissance Man* CD is a gift to bass freaks. Every funky thumb pop, rockish crunch lick, or smooth jazz walk is presented with visceral force. Even when his eclectic ambitions outdistance his composi-



Tacuma: sonic ping-pong

tional talents, Tacuma remains the complete bassist. His music may be less dense and more rhythmically straightforward than Coleman's, but it is hardly watered down. His dance-styled material is an honest attempt to make harmolodic street funk; the more complex tunes will appeal to jazz fans who are having difficulty entering into Coleman territory. The CD's superb sound will please fans of both camps.

Steve Futterman

JIMMY LYONS QUINTET: Wee Sneezawee.

Giovanni Bonandrini, prod. Black Saint BSR 0067.

It's possible that alto saxophonist Lyons's reputation might suffer somewhat as a result of the awesome steadiness of his career: If a guy spends almost a quarter of a century with the same aggregation, even if it is the Cecil Taylor Unit, he's going to be taken for granted. Add to this the not totally inaccurate perception that Lyons is a fleet-fingered neo-bopper who favors the midrange of his instrument, and one can't be blamed for expecting a Lyons-led record of his own compositions to offer a predictably limited scope of colors and feelings.

But if one approaches this record expecting an emotionally monochromatic exercise in free-form angst (tinctured with the proper amount of delirium), one is going to be pleasantly surprised. You want humor? (An album titled Wee Sneezawee must have humor.) Try the witty head of the title cut or the pixilated arrangement of "Shakin' Back"'s simple theme, a few snakey notes that bassoonist Karen Borca refers to during her solo before caroming away. Thrills and chills? Confront any of trumpeter Raphe Malik's solos: brassy and dramatic and spiked with mutated cavalry calls. Or perhaps you'd prefer to focus on the way bassist William Parker and drummer Paul Murphy negotiate the so-fast-they-blur tempos of the "jump" cuts, or how, throughout the album, Parker's flat-footed momentum and Murphy's color commentary create an ever changing backdrop for the three front-liners. Seeking romance? Well, maybe not romance, but something very close to it appears on the ballad "Remembrance," where Lyons and Malik adopt conventionally pretty tones for their wistful spots before Borca comes in and proves that a bassoon, under any circumstance, sounds a little weird (but she's game, and we appreciate that).

It adds up to a pleasurable program one that might, if enough people hear it, do some damage to Lyons's reputation as just that guy who plays in Cecil's band.

Richard C. Walls

ETHEL WATERS:

• Wayne Knight, prod. Glendale GL 9011. (Legend, P.O. Box 1941, Glendale, Calif. 91209.)

The human voice is a strange and mysterious sponge. Few instruments can withstand the assault and battery of personal emotion, and even fewer can transform the pain and sorrow of a whole race into a cry of defiant joy. That alchemy of spirit—not the fancy runs or trills or long-held notes—is the true vocal art, and one of its most devoted servants was Ethel Waters.

(Continued on page 96)



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BACKBEAT REVIEWS

(Continued from page 92)

Born in 1900 in the most squalid of Philadelphia ghettos, Waters had good credentials for misery. She grew up nobody's child, raised among pimps and whores and shuffled among drug-filled households that could ill afford her. The voice that showed itself early on was untrained but hardly undisciplined—it was, in fact, a paradigm of unstudied elegance. But no one would have predicted she'd conquer every available entertainment field from both black and white vaudeville to nightclubs, theater, radio, films, recordings, and TV.

This 1984 Glendale release documents Waters in her prime, ably supported by the J. C. Heard Jazz All Stars and long-time pianist Reginald Beane, and includes many of the hits ("Dinah," "St. Louis Blues," and "Cabin in the Sky") that she made famous.

Waters sang the way the rest of us breathe: without thinking. There was not a shred of pretension in her voice; the timbre was rich, full, and fluid, with a basement she loved to dip down into. Talk-true, her phrasing was so deceptively simple that you'd swear she was just sitting at the kitchen table, her slippers still on. She could lean into a growl, sputter around a consonant, or play off the gravel, but her effects never sounded calculated, and she could, with a single word, nail you to the floor with her honesty.

Waters never got quite right with the opposite sex, though. Perhaps she was too honest; in any case, she was not above punching out a rival who messed with her man. It was her one bad habit—and she knew it—but it was one more heartbreak she could hone into humor in songs like "Man Wanted," "Honey in a Hurry," "You Took My Man," and "I Shoulda Quit." Despite her volatility (or because of it), Waters had a rock-bottom religion that didn't give in to salvation until she was sure she was seeing the light—and she saw it in Gershwin's "Summertime" like no one else has.

There is a wealth of material here, but an essential Waters is missing: the character actress, darkly dramatic and unashamed to pull out all the emotional stops. *Miss Ethel Waters*, an out-of-print Monmouth Evergreen release (MES 6812) of a late-Fifties live performance, reveals that talent in her sobbing rendition of Irving Berlin's "Supper Time" (where she portrays a woman whose husband has just been lynched), as well as in Harold Arlen's "Stormy Weather." Waters knew how to pull heartstrings, but she always played her own first, never losing sight of the humor of human survival. Her ad lib on that recording captured her indomitable spirit: "I know I'm fat, but am I blue?"

Pamela Bloom

29th STREET SAXOPHONE QUARTET: Pointillistic Groove.

George Coppens, prod. Osmosis 6002. (Distributed by New Music Distribution Service, 500 Broadway, New York, N.Y. 10012.)

Nineteen eighty-four turned out to be the year that the street bands came in from the cold. The Dirty Dozen Brass Band of New Orleans got so successful that it could no longer march in its hometown without creating traffic gridlocks, and the 29th Street Saxophone Quartet moved off New York's sidewalks into European concert halls and a regular gig at home (at the Angry Squire).

The Quartet, like the Dirty Dozen, shows its street background with choreography, shuffling around on stage in edgy formations. But this creates the same problem for both groups: You can't make an album dance. The choice of material on *Pointillistic Groove* is not as strongly rhythmic as 29th Street's club sets can be, either. And in the year since this record was made in the Netherlands, the group's playing has developed and become more intensely open.

However, this is still an exciting and revealing disc. Sustaining four saxophones unaccompanied over an entire program is a demanding exercise in concentration and creativity. All members of the Quartet-alto players Bobby Watson and Ed Jackson, tenor Rich Rothenberg, and baritone Jim Hartog-compose and arrange. Watson, a veteran of Art Blakey's Jazz Messengers, is a fiery soloist, the driving force on his own lively and rhythmic piece, "The Curious Child," and in Hartog's arrangement of "Love for Sale." On Jackson's arrangement of "Anthropology," the two altos combine in long, slippery, challenging duets that are the closest thing on the record to the flying sparks of a performance.

Jackson's "Pointillistic Groove" is a showcase soliloquy, a lengthy display of discordant sounds that is too self-indulgent. A couple of pieces—Hartog's "Still" and Watson's "One Chance at Life"—are weighed down by confining writing. But these are problems that the Quartet has already begun solving. The basics are here, though, of a provocative and adventurous group.

John S. Wilson

THE JANET LAWSON QUINTET: Dreams Can Be.

 Bill Goodwin and Chris Fichera, prods. Omnisound, Inc. N 1052.

This disc has all the humor, spontaneity, and immediacy of a home movie—minus any trace of amateurism. It was recorded in eight hours on eight tracks, and two of the cuts were first takes. Overrehearsed and overproduced it ain't; in fact, Ratzo Harris could be playing his solo on "In a Sentimental Mood" in your living room.

Like kids performing before a video camera, everyone is having a great time, though Janet Lawson may be the rabblerouser of the bunch. Her high, skittish scat (especially in the title cut) reveals a playfulness and purity of sound. In performance you see her startle and amuse herself with her own vocal discoveries; a quick descending riff sends a shiver through her from head to toe. Lawson plays her body the same way many instrumentalists do, physically interpreting the phrases she sings.

And why not? Lawson maintains adamantly that she is an equal member of this quintet, not a singer with backup. *Dreams Can Be* attests to this sense of ensemble, though each musician is a solid individualist as well.

In "Better Get (H)it in Your Soul," Bill O'Connell's fleet-fingered piano work captures the nuances of Lawson's vocal line. His style is not to impose, but to slowly engage your listening. Jimmy Madison, ever reliable through the varied rhythmic changes in "Out of This World," is comfortable producing subtle coloristic effects or energetic solos. Reedman Roger Rosenberg has glittering moments in just about every tune.

Lawson presents her flip side with some sultry, Billie Holiday-blues vocals on "Out of This World" and "Sentimental Mood." In the latter, she imitates Harris's slithery slides and bends on the bass strings. I wouldn't mind hearing more of these mellow tunes where she explores her rich middle and lower registers. But whether they choose to take it down or liven it up, this quintet will surely find a way to make their own fun and ours, too.

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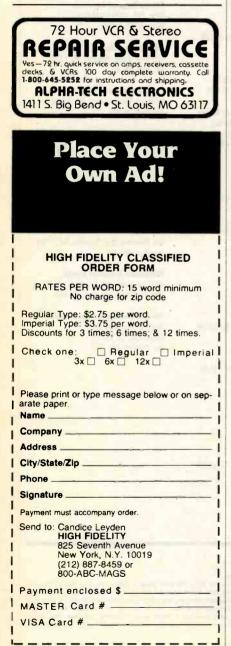
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Services



ARTHUR BAKER

(Continued from page 82)

knocked me out. He had never played it for Daryl—didn't think it was "in our style," as he put it. Along with co-producer/engineer Bob Clearmountain, my job was to add some real beef to the bottom of their sound. **Backbeat:** What's on the boards?

Baker: I'm doing some tracks with Carly Simon. She's on a new label. Epic, her voice is better than ever, and there will be some very fresh dance cuts on the album. I'm also working with Jennifer Holliday, the singer who originally starred in Dreamgirls. Her stuff is gospel/r&b in feeling; I'm hoping that "Hard Times for Lovers" will be this year's "What's Love Got to Do With It." Also, my wife. Tina B., has an album out that I produced and wrote for, and it looks like I'll be producing for Maurice White of Earth, Wind and Fire. And Epic has contracted with me for a solo album. I'm doing the writing and the singing, but I'm not afraid to ask my friends to guest appear-including guys from the Cars and the E Street Band.

Backbeat: What are you listening to these days?

Baker: I love the S.O.S. Band, with their spacious, loping bass patterns, and rappers Run-D.M.C.... A lot of English stuff is good, although most of it has more style than substance. One argument I have with the record business here is that it is too enamored with English bands. Meanwhile, American bands-especially those playing urban music and rap-get a raw deal. Rolling Stone's 1984 article about "the most exciting new groups" covered only white bands. Rap groups aren't considered American bands, I guess. The real irony is that British groups steal their ideas; Duran Duran, whose single "The Reflex" has a multiple-edit mix, rap style, sell millions of records, as if they invented the form.

Backbeat: How would you characterize your style as a producer?

Baker: I'd like to be known as one you can't categorize. I'm not trying to spread myself too thin, but I don't want to be "bagged" by the industry either. At first they said I was hip hop, then they pegged me as the king of the remixers. If I can bring my sound to a diversity of artists without changing theirs, I'll escape being pigeonholed. Then people will just say, "He's different; he's a renegade."

12-INCH REPORT

(Continued from page 83)

Rain," and "I Would Die 4 U" all flip to new songs that aren't included on his albums. The best of these, "Erotic City," backs up an extended version of "Let's Go Crazy" (Warner Bros. 20246) with a crisp, teasing grind that sets Prince at his randiest, a compliant Sheila E., and a welter of electronic "voices" against a playful, percolating track. Typically, the subject is hot-sex and sensibility-but the treatment is exceptionally cool. "Another Lonely Christmas" (WB 20291), addressed to a dead girlfriend, is dirgelike and murky (every line is echoed), but the quirky details are prime Prince and the music takes on a dark, eerie glow by the end. It makes an odd companion piece to a ten-minute rave-up version of "I Would Die 4 U" that sounds like it may have been recorded live-minus the sharp edges of the LP track but bristling with fresh energy. Flip the 12-inch of "Purple Rain" (WB 20267 and identical to the album cut) for yet another side of Prince: a spacey gospel number called "God" that begins with startling wails and ends with hushed advice to "dance the dance electric/There isn't much time." Purple rain's gonna fall.

Following the success of "Dancing in the Dark," Springsteen's 12-inch records have been radical remixes, including new instrumentation, by Arthur Baker. When the credits read, "Based on the original production by," you know Baker has been tearing down and rebuilding the instrumentation while chopping, phasing, and echoing the vocals-reinventing the song from the inside out. Purists may find the results disturbing, but Baker never loses the main thrust of the music or the lyrics, and he keeps Springsteen, who has never sounded more powerful on record, way out front. "Cover Me" (Columbia 5087), which comes in four versions on the 12-inch, includes a vocal by soul belter Jocelyn Brown ("Somebody Else's Guy") that underlines Springsteen's lead and seems to push him higher; there's a new urgency here that hits as hard as the pounding drums. "Born in the U.S.A." (Columbia 5147) is even tougher: Baker strips and punches up the track, leaves the vocals sounding raw and painful, so Bruce rasps out "U.S.A." over and over in hopeless, searing passion. [See Crispin Cioe's interview with Arthur Baker in this issue.]

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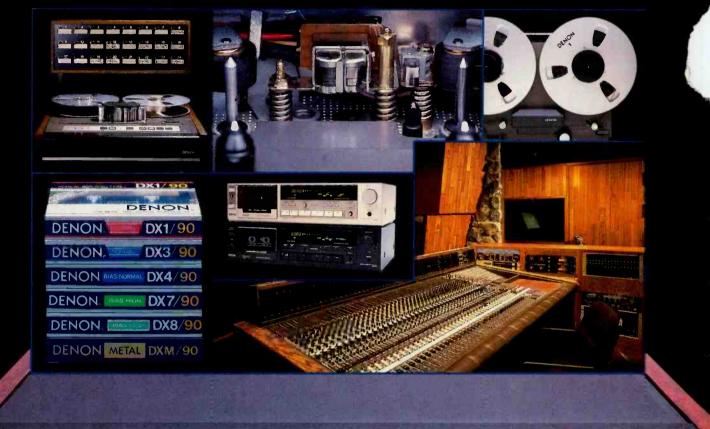
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Denon has been producing open reel tape and tape recorders for cver 25 years. Not simply ¼" machines, but 24-track 2" studio machines. This open reel technology helped Denon become one of Japan's largest recording companies and a prime supplier of equipment to Japanese recording studios and radio stations. It also led to the Non-slip Reel Drive Motor and Closed-loop

Dual Capstan technologies found on Denon's DR-M33 and the DR-M44 Three-head Cassette Decks. Similarly, the outstanding audio performance of these decks can be attributed to Denon's electronics experience building the world's finest hi-fi components.

The net result is the most advanced in the series of cassette decks considered by serious recorcists to be "the most musical cassette decks available at any price." Proof that no matter how much anyone tells you or charges you, there simply is no substitute for experience.









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INPUT LEVER

MAXELL TAKES COMPACT DISC QUALITY OUT OF THE LIVING ROOM.

Ah, the comforts of home. They're tough to leave behind. Especially when it comes to things like your compact disc player.

But even though you might not be able to take the player with you, you can take the brilliant sound quality. If you record your compact discs on Maxell XL-S cassettes.

By producing smaller, more uniform magnetic particles, we can pack more of those particles on the tape surface. Which makes it possible to record more information on a given area of tape.

As a result, AC bias noise is greatly reduced. And maximum output levels are significantly increased. In fact,

the dynamic range of XL-S is expanded so much, it can capture everything from the subtle passages to the extreme bursts inherent to compact discs.

So record your compact discs on Maxell XL-S.

quality wherever you feel at home.

