

COMPUTER TESTING
OF PHONO CARTRIDGES

JULY 1979 • \$1.25

Stereo Review®

WHAT SECRET INGREDIENT MAKES A RECORD "GO GOLD"?
AFTER THE SEVENTIES: IS THERE ANY HOPE FOR POP MUSIC?

EQUIPMENT TEST REPORTS: dbx Model 1BX Dynamic Range Expander
Hitachi D-5500 Cassette Deck • NAD 3020 Integrated Stereo Amplifier
RTR PS/1:DAC/1 Speaker System • Thorens TD 115C Record Player

AUTOSOUND: HOW TO FURNISH A "LISTENING ROOM ON WHEELS"



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Stereo Review

AND SO IS THE FIGHT ABOUT TUNERS.

At one time the struggle between amplifiers was won by the amp that had the most muscle. And the tuner that brought in the most stations also brought in the most acclaim.

Today, there's one series of amplifiers whose technology has put it in a class by itself. And now, with Pioneer's new TX 9800 tuner it's met its match.

While other tuners offer features that just sound great, every feature in Pioneer's TX 9800 helps to produce great sound.

Unlike ordinary tuners that are content with ordinary circuitry, the TX 9800 has a new Quadrature Discriminator Transformer that works with Pioneer's exclusive PA 3001-A integrated circuit to reduce distortion to 0.05% at 1 KHz and raise the signal-to-noise ratio to 83 dB. Whew!

Many of today's tuners use sophisticated low pass filters to remove the 19 KHz pilot signal that's present in every stereo broadcast. But while they're effective in removing the pilot signal, they're also effective in removing some of the music.

The TX 9800 has Automatic Pilot Cancelling Circuitry that makes sure every part of the music is heard all of the time. And that distortion is veritably unheard of.

The crowning achievement of most tuners today is the sensitivity of their front end. And though it's much to their credit to bring in weak stations, it means nothing unless they can do it without spurious noise or other interference.

The TX 9800's front end has three dual gate MOSFET's that work with our five gang variable capacitor to give you an FM sensitivity of 8.8 dBf. And also make sure that your favorite music is not disturbed by what's playing elsewhere on the dial.

And while most tuners today give you one band width for all FM stations, the TX 9800 gives you two. For both AM and FM. A wide band that lets you bring in strong stations loud and clear. And a narrow one that finds even the weakest station on a crowded dial and brings it in without any interference.

All told, these scientific innovations sound mighty impressive. But they wouldn't sound like much without an even more impressive tuning system.

The TX 9800 has a specially designed Quartz Sampling Lock Tuning System, that fortunately, is a lot easier to operate than pronounce.

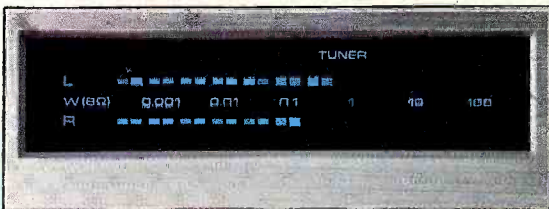
Simply rotate the tuning dial to your desired station. When the station is tuned exactly right a "tune" light comes on. By releasing the tuning dial you automatically lock onto that broadcast. And automatically eliminate FM drift.

By now, it must be obvious that the same thinking that went into Pioneer's new amplifiers has also gone into their new line of tuners.

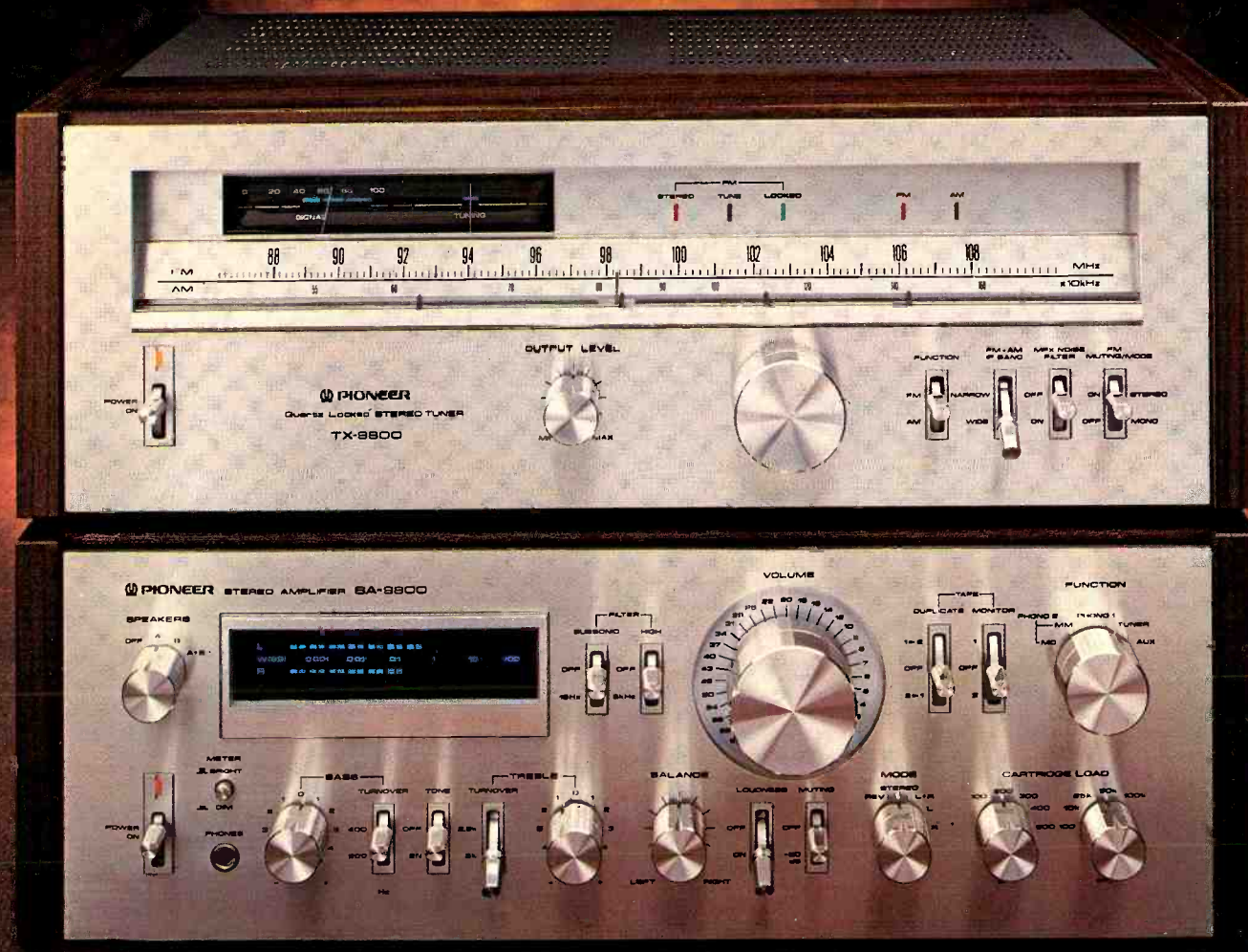
So just as Pioneer ended the class struggle between amps, they won the fight between tuners. With a technical knockout.



SIGNAL STRENGTH AND CENTER TUNING METERS FOR A DRIFT-FREE PERFORMANCE.



INSTANTANEOUS FLUORESCAN METERING THAT LETS YOU WATCH EVERY PERFORMANCE WHILE YOU HEAR IT.



PIONEER[®]

We bring it back alive.

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High Fidelity Components,

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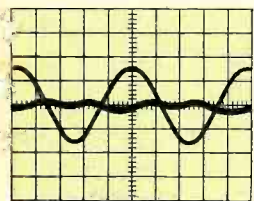
THE STRUGGLE BETWEEN THE CLASSES IS OVER.

For years people have clashed over which amplifiers are best. Class A or Class B. Expensive Non-switching Class A amplifiers are known to offer the lowest levels of distortion. At the same time, they also offer the highest operating temperatures. And while Switching Class B amplifiers increase efficiency, they also increase distortion.

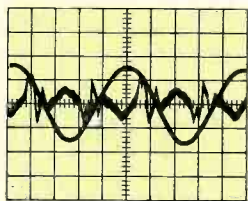
So if you're not paying through the nose for a heat-producing Class A amplifier, you'll be paying through the ear for a distortion-producing Class B.

At Pioneer, we believe most of today's Class A and Class B amplifiers are pretty much in the same class. The class below Pioneer's SA 9800.

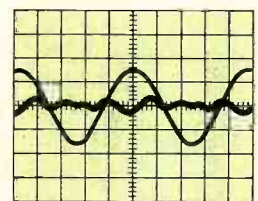
Pioneer's Non-switching SA 9800 offers the efficiency found in the finest Class B amplifiers. With a distortion level found in



CLASS A AMPLIFIER.
LEAST DISTORTION
BUT MOST HEAT.



CLASS B AMPLIFIER.
MOST DISTORTION
BUT LESS HEAT.



SA-9800.
LESS DISTORTION, LESS
HEAT, AND MORE POWER.

the finest Class A. An unheard of 0.005% at 10-20,000 hertz.

And while you're certain to find conventional power transistors in most conventional amplifiers, you won't find them in the SA 9800. You'll find specially developed RET (Ring Emitter Transistors) transistors that greatly increase frequency response. So instead of getting distortion at high frequencies, you get clean clear sound. Nothing more. Nothing less.

Instead of slow-to-react VU meters that give you average readings or more sophisticated LED's that give you limited resolution, the SA 9800 offers a Fluroscan metering system that is so fast and so precise it instantaneously follows every peak in the power to make sure you're never bothered by overload or clipping distortion.

And while most amplifiers try to impress you with all the things they do, the SA 9800 can even impress you with the one thing it simply doesn't do. It doesn't add anything to the sound it reproduces. An impressive 110dB S/N ratio is proof of it.

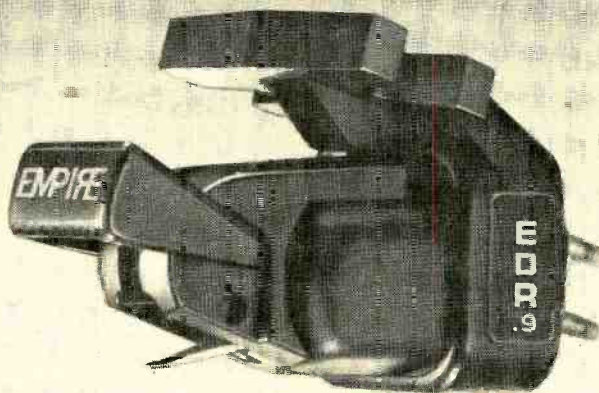
While these features alone are enough to outclass most popular amplifiers, the SA 9800 also offers features like DC phono and equalizer sections and DC flat and power amps that eliminate phase and transient distortion. Cartridge load selectors that let you get the most out of every cartridge. And independent left and right channel power supplies.

Obviously, it took revolutionary technology to build the SA 9800. But the same technology and skillful engineering that went into the SA 9800 also goes into every amplifier in Pioneer's new series.

At Pioneer, we're certain that others will soon be entering the class of 9800. And though they all may be built along similar lines, in terms of value Pioneer will always be in a class by itself.

PIONEER®
We bring it back alive.

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INTRODUCING THE EMPIRE EDR.9 PHONO CARTRIDGE. IT SOUNDS AS GOOD ON A RECORD AS IT DOES ON PAPER.

It was inevitable . . .

With all the rapid developments being made in today's high fidelity technology, the tremendous advance in audible performance in Empire's new EDR.9 phono cartridge was bound to happen. And bound to come from Empire, as we have been designing and manufacturing the finest phono cartridges for over 18 years.

Until now, all phono cartridges were designed in the lab to achieve certain engineering characteristics and requirements. These lab characteristics and requirements took priority over actual listening tests because it was considered more important that the cartridges "measure right" or "test right"—so almost everyone was satisfied.

Empire's EDR.9 (for Extended Dynamic Response) has broken with this tradition, and is the first phono cartridge that not only meets the highest technological

and design specifications—but also our demanding listening tests—on an equal basis. In effect, it bridges the gap between the ideal blueprint and the actual sound.

The EDR.9 utilizes an L. A. C. (Large Area Contact) 0.9 stylus based upon—and named after—E. I. A. Standard RS-238B. This new design, resulting in a smaller radius and larger contact area, has a pressure index of 0.9, an improvement of almost six times the typical elliptical stylus and four times over the newest designs recently introduced by several other cartridge manufacturers. The result is that less pressure is applied to the vulnerable record groove, at the same time extending the bandwidth—including the important overtones and harmonic details.

In addition, Empire's exclusive, patented 3-Element Double Damped stylus assembly acts as an equalizer. This eliminates the high "Q" mechanical resonances typical of other stylus assemblies, producing a flatter response, and lessening wear

and tear on the record groove.

We could go into more technical detail, describing pole rods that are laminated, rather than just one piece, so as to reduce losses in the magnetic structure, resulting in flatter high frequency response with less distortion. Or how the EDR.9 weighs one gram less than previous Empire phono cartridges, making it a perfect match for today's advance, low mass tonearms.

But more important, as the EDR.9 cartridge represents a new approach to cartridge design, we ask that you consider it in a slightly different way as well. Send for our free technical brochure on the EDR.9, and then visit your audio dealer and listen. Don't go by specs alone.

That's because the new Empire EDR.9 is the first phono cartridge that not only meets the highest technological and design specifications—but also our demanding listening tests.
Empire Scientific Corp.
Garden City, N.Y. 11530

EMPIRE

FORMERLY HI FI/STEREO REVIEW (ISSN 0039-1220)

Stereo Review®

JULY 1979 • VOLUME 43 • NUMBER 1

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COVER: Design by Borys Patchowsky; photo by Bruce Pendleton. (Jensen 420 receiver; Momo "Prototipo" series steering wheel.)

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The Art Of Record Storage

Phonograph record storage has two new facets from the technology of Discwasher Labs. Understanding the problems will make the cures very meaningful.

Valuable Record Protector

Cure for Record Sleeve Problems

Before VRP™, record sleeves were generally paper, or "polybags," or "poly-lined" paper. Experiments show that paper can easily scratch records, and paper textures will imprint delicate vinyl under the conditions of summer heat. Many "polysleeves" and "poly-lined" sleeves will literally "ooze" plasticizers from the plastic onto discs and leave a clogging film. The polysleeve material generates static, and often sticks to the stored records.

The new Discwasher VRP™ sleeves are totally plasticizer-stable material that is measurably anti-static and so very smooth that records effortlessly "glide" out of the sleeve without scratching.

VRP™—a refined record sleeve for recordings you value. Only \$2.75 for a pack of ten.



DiscKeeper




Cure for Storage Warp

Shelf storage at only 4° or 5° of slant will warp records even at room temperatures. And stuffing records into a tight shelf space makes album selection nearly impossible.

Enter the new DiscKeeper™—a storage system of formed aluminum and solid walnut panels. Precision compression bars hold about 50 albums perfectly flat, perfectly upright, and pull forward to permit you to "page through" your entire stored collection as you would in a record store.

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Discwasher, the leader in high technology record care, now states the new art of record storage.

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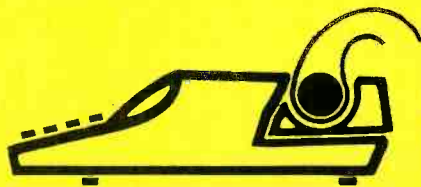
CIRCLE NO. 9 ON READER SERVICE CARD



Stereo Review BULLETIN

Edited by William Livingstone

- A 5% TAX ON THE SALE OF BLANK AUDIO TAPE has been proposed in California. The tax, which is similar in purpose to a long-standing West German tax on tape recorders, is intended to make up for royalties lost when records or radio broadcasts are taped by home recordists. In Germany the income from the tax is turned over to GEMA (roughly equivalent to our ASCAP or BMI) for distribution to music-copyright holders. The California bill would use the tax money to sponsor concerts, workshops, and musical instruction. The bill must be approved by both houses of the California State Legislature to become law; immediate passage is not likely. A straw in the wind?
- POPS, WE LOVE YOU, this year's official Father's Day song, was the first disco song to be so honored by the National Father's Day Committee. You can hear it either as a single or in the album "Pops, We Love You" (Motown M7-921 R1) as recorded by Diana Ross, Marvin Gaye, Smokey Robinson, and Stevie Wonder.
- A SOUVENIR OF THEIR MARCH CHINA TOUR has been recorded in Boston by Seiji Ozawa and the Boston Symphony Orchestra. The album includes Sousa's Stars and Stripes Forever, Liszt's Piano Concerto No. 1 with guest soloist Liu Shih-Kun (piano), and Little Sisters of the Grassland, a concerto for pipa--a lute-like instrument--and orchestra with Liu Teh-Hai (pipa). This first recording of artists from the People's Republic of China with Western musicians is on the Philips label (9500 692).
- CARTRIDGES WITH INTEGRAL HEADSHELLS, now popular in Japan, will soon be available here from a number of manufacturers. The units plug into the standard four-pin bayonet connector used in many Far Eastern and European tone arms and are said to provide mounting accuracy, rigidity, and resistance to minor resonances. Nagatron has adopted the format for use with their high-end ribbon cartridge, Audio-Technica offers it on the moving-coil AT-30, Ortofon has it in their "Concorde" moving-iron cartridges, and Yamaha with their moving-coil MC-1S.
- A BRAND NEW SUIT: The ex-Beatles, along with their now-defunct Apple Records label, are involved in yet another lawsuit, this time against Capitol Records and its European parent EMI. The five-million-dollar (!) action charges that Capitol shortchanged the Fab Four on royalties during the period 1962-1976.
- FOUR DIGITALLY RECORDED ALBUMS of orchestral music conducted by Morton Gould, originally scheduled for release on Digital Sound Products' Legende label, have been licensed to Varèse-Sarabande of Los Angeles. Featuring performances by the London Symphony Orchestra, the albums were recorded in England last fall with the Soundstream system. Two of them have been pressed in this country and released on the Chalfont label along with a digitally recorded organ recital by Carlo Curley. The other two orchestral albums are being pressed in Japan and will be released on Varèse-Sarabande probably by early July.



Stereo Review

BULLETIN

Edited by William Livingstone

- AN EASING OF REGULATIONS GOVERNING PUBLIC-AFFAIRS PROGRAMMING by radio stations is under consideration by the Federal Communications Commission. A recent staff proposal would lift regulations that require AM and FM stations to devote at least 8 per cent and 6 per cent of their air time, respectively, to non-entertainment programming. The Commission is also considering removing the restriction that limits air time devoted to advertising to 18 minutes an hour. The proposals indicate a shift away from regulation and toward "free-market" conditions as the preferred means of achieving programming "in the public interest."
- CLASH FLASH: The British group's next Epic album, scheduled for July, will include material from their critically acclaimed debut recording (never released in America) as well as several English single sides and a brand new cover version of Bobby Fuller's venerable I Fought the Law for a total of seventeen cuts (including a bonus EP).
- OPERATIC SOPRANO LEONTYNE PRICE has now been made a doctor of music seven times. Both Columbia University and Yale conferred honorary doctorates on her this year, Columbia citing her "for unwavering devotion to excellence and for responsibility as an artist and as a human being." The other five degrees were awarded by Central State College (Ohio), Dartmouth, Fordham, Howard University, and Rust College (Mississippi). Long an exclusive RCA artist, Dr.⁷ Price now free lances, and her latest recording is Strauss' Ariadne auf Naxos, reviewed in this issue (London OSAD 13131).
- JAPANESE TAPE "MADE IN DIXIE": Both TDK and Maxell will construct tape factories in the South, TDK at Peachtree, Georgia, and Maxell at a site as yet undisclosed. Both are expected to be in operation by 1981. TDK's Georgia plant, which will have a production capacity of a million tapes per month, is actually the company's second U.S. facility: their California factory now produces about three million audio tapes per month.
- AN INTERNATIONAL CONTEST FOR KEYBOARD ENTERTAINERS is being conducted jointly by the Liberace Foundation for the Performing and Creative Arts and the Baldwin Piano and Organ Company. The competition will take place in fifty cities on four continents. Each of the winners (one pianist and one organist) will receive a \$10,000 prize and will appear on stage with Liberace at the Las Vegas Hilton in April 1980. For details contact local Baldwin dealers or the Liberace Foundation, 1775 East Tropicana, Las Vegas, Nevada 89109.
- COMPOSERS ULYSSES KAY AND NED ROREM were among new members inducted into the American Institute of Arts and Letters in May, and new honorary members included Georges Auric (France) and Karlheinz Stockhausen (Germany). Institute member Roy Harris was inducted into the American Academy of Arts and Letters at the same ceremonies.

tech talk:

45 watts RMS minimum per channel, into 8 Ohms.
From 20 to 20,000 Hz. With not more than 0.08% THD.

explained.

The easiest way to decipher amplifier specs like those above is to look at the first and last figures. What's in between can be said for just about any good stereo. It's there because the Federal Trade Commission requires it. What you need to know is this. The higher the wattage, the more power you get. The lower the THD, the less distortion you get.

But good specs aren't everything. Compare this MCS Series® 45 Watt System to other audio systems, and you'll find it's just as important to look for great features. Like the tape dubbing switch on our amplifier, that lets you hook up two tape decks and record from one to the other. The signal strength and FM tun-

ing meters on our tuner. The Dolby® noise reduction system on our cassette deck. The DC servo motor in our direct drive turntable. And our bass-reflex 3-way speaker system.

You don't even have to understand the technology to know what you're getting. It all translates into sound. The MCS Series 45 Watt System complete with rack, only \$999.

Full 5-Year Warranty on speakers. Full 3-Year Warranty on receivers, turntables, tape decks, tuners and amplifiers. If any MCS Series® component is defective in materials and workmanship during its warranty period, we will repair or replace it—just return it to JCPenney.



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Series

IT MAKES EVERYTHING CLEAR.

Sold and serviced at JCPenney

CIRCLE NO. 31 ON READER SERVICE CARD

Speaking of Music...

By William Anderson



MONSTER CONCERT

THERE is going to be a bit of consternation in the musical archives one of these days when some scholar of New York concert life in the Seventies discovers forty-one different pianists claiming to have made their Carnegie Hall debuts on the same night—May 2, 1979. But they did, and a full, enthusiastic house was there to witness the event: Eugene List's Monster Concert honoring the 150th anniversary of the birth of the American composer Louis Moreau Gottschalk (in New Orleans, May 8, 1829).

Present and former pupils of Mr. List flew in from all corners of the country to participate, but all forty-one of them did not play at once, of course. The Corps de Piano, as concert organizer List dubbed them, tramped on stage by the pair, half dozen, decade, and, indeed, *score* to play, as the musical program demanded, the ten grand pianos crowding the Carnegie Hall platform. Before you jump to

the conclusion that this was merely some kind of musical vaudeville stunt, you should be aware that Gottschalk, along with many other nineteenth-century piano virtuosos, was quite partial to this sort of thing and, moreover, that he had a horror of the Puritanism that considered such diversions indecorous. There is, in truth, a great deal to be said for this kind of music making. Quite aside from the sheer fun of the enterprise for both players and audience, there is an unmistakable thrill—call it melomania—to hearing ten pianos roar with the power of forty hands, two hundred fingers. When the whole thing works, as it did repeatedly in this program, the effect is marvelously orchestral—which is precisely what it was meant to be. The world of the nineteenth century was not as rich in symphony orchestras as that of the twentieth, but it was probably richer, per capita, in pianos. What could be more natural, then, than using the pi-

ano's broad frequency and dynamic ranges, its variety of timbres and colors, to simulate the whole sonorous spectrum of instruments?

Gottschalk had an unusual flair, a fertile tonal imagination for this; for example, he customarily scored even his smaller piano works for four hands—and not merely because that format was good for sheet-music sales. His ear was, from all evidence, unusual in another way too: he seems to have had a fondness, verging on passion, for the treble register. If you are going to write much for four hands you had better have a *little* feeling for that part of the musical world, but Gottschalk lavished upon it some of his most brilliant effects, his most inspired inventions. The Monster Concert was full of proof of this, but it also suggested to me a reason for it. Brilliant as he was as a composer and virtuoso of the piano, I suspect that he was also a somewhat frustrated vocal composer. (Gottschalk scholar Robert Offergeld has suggested, in his *Centennial Catalogue* of Gottschalk works, Ziff-Davis, New York, 1970, that there are at least two, perhaps three, lost operas from his hand in addition to the few vocal works we have.) That may be why the high spots of the program for me were the charming (though abbreviated) *Cuban Country Scenes (Escenas Campestres, R.O. 77)* and (particularly) the concert aria *Le Papillon (R.O. 188)* written for Carlotta Patti, older sister of Adelina Patti (with whom Gottschalk toured in Cuba when that coloratura superstar was only in her teens). The aria can easily stand with the best of its genre, a brilliant display of technical virtuosity in the writing that requires no less in performance. It is, moreover, ravishingly beautiful melodically, lies gratefully on the voice, and ought to recommend itself at a single hearing to any recitalist up to it.

The rest of Gottschalk needs only a single hearing to enchant as well; if you don't already have one, you *could* not do better than get a copy of Mr. List's *ur*-recording of the piano works on Vanguard S-723/4. It will be one of the best discoveries you make this year.

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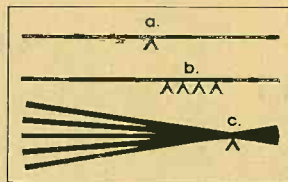
We found the optimum pivot point before the others even knew it was missing.

Most manufacturers are content to determine tonearm pivot points by trial-and-error. And many tonearms are so susceptible to external vibrations that you have to tiptoe around the turntable.

With Sansui's Dyna-Optimum Balanced (DOB) tonearms, based on our Optimum Pivot Point principle, the transmission of vibrations is dramatically reduced to give you more freedom to enjoy your music. It's used in our new, fully automatic direct-drive FR-D4 and FR-Q5.

Here's how the DOB works: Put a pencil on a table. Wiggle one end back-and-forth. The other end will move; but a certain point will not. This is the Optimum Pivot Point.

In our new DOB tonearm the arm is pivoted at this highly stable point. With no relative motion between the point and the arm support, effects from external forces are minimized. Friction is almost non-existent, so the stylus is



a. Center of Mass. Starting point for conventional tonearm designs.

b. Typical trial-and-error pivot points, usually placed close to **a.** so that counterweight is not too heavy, tonearm not too long.

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A patent is pending on Sansui's brushless DC motor used in the FR-D4 and FR-Q5. And with the Quartz-PLL system of the FR-Q5 and the special speed-error detection/correction system of the FR-D4, wow and flutter, speed accuracy and signal-to-noise specifications are outstanding. All operations are computer-controlled using the latest LSIC technology. The computer even knows to shut off the motor if you forget to unlock the tonearm clip.

To make the FR-D4, FR-Q5, as well as the budget-priced direct-drive FR-D3 even more convenient, we put all the controls up-front, outside the dustcover.

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The reason we can offer you SIX metal tape-compatible decks with specs like these, is all in our heads. Sen-Alloy heads. With better high frequency characteristics than the Sen-Dust most of our competitors use, Sen-Alloy just happens to record and erase metal tape perfectly.

So while our competitors have had to struggle with little problems like designing heads that could handle metal tape, we've had a head start towards packing our metal decks with more state-of-the-art features.

Our new "X-cut" Sen-Alloy record head extends bass response to lower than your woofers may go: 25Hz!

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Spectra-Peak and Multi-Peak L.E.D. indicators react 100 times faster than meters so you can make perfect, undistorted recordings.

How much does it cost to replace the weak link in your system with a JVC metal deck?

As little as \$299, and no more than \$750, suggested retail price.

After all, now that your ears are ready for metal tape, your pocket-book ought to be too.

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800-221-7502 toll-free (in NY State call 212-476-8300). Or write to US JVC Corp., 58-75 Queens Midtown Expressway, Maspeth, NY 11378.



The B.E.S.T. computer system



The X-cut Sen-Alloy record/play head and Double-Gap Sen-Alloy erase head.

Shown: KD-A8, 2hd, 2mot, MPI L.E.D.'s, B.E.S.T., X-cut SA rec/play head, SA erase head, solenoid controls, Super-ANRS. Freq. resp., 25-17K*; S/N, 60dB**; w&f, 0.35%. **KD-A5**, 2hd, 2mot, MPI L.E.D.'s, SA rec. erase hds, sol cont., Super-ANRS, freq. resp. 30-16K*; S/N, -60dB**; w&f 0.04%. **KD-A6** 2hd, 2mot, X-cut SA Rec/play & SA erase hds 2 x 10, MPI L.E.D.'s; Super-ANRS, pitch cont. 25-17K* freq. resp. S/N, -60dB**; w&f 0.04%. **Not Shown:** KD-77, 3 SA hds, 2mot, sol contr. Super-ANRS; **KD-A7**, 2hd, 2mot, X-cut SA rec/play & SA erase hds, sol cont., 2-cir fluores. 10-bank SpectroPeak mtrs., Super-ANRS; **KD-A3**, 2hd, 2mot, MPI L.E.D.'s, SA rec. erase hds, Super-ANRS.

* \pm 3dB @ -20VU.

**Without noise reduction. (ANRS adds 10dB @ 5kHz)

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CIRCLE NO. 23 ON READER SERVICE CARD

The Fisher ST460.

You will probably never use all its capabilities.

The Fisher ST460 Studio Standard® speaker system was not intended for casual listening.

So if all you want is background music with dinner, or soothing sounds to relax to, save your money.

On the other hand, if you get involved in music to the point that you sometimes have to hear it at "real life" levels, the ST460 may be the perfect speaker for you. Because it will deliver everything that you ask of it—and probably more.

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The beautiful walnut-grain vinyl ST460 enclosure houses a massive Fisher Model 15130 15" woofer, two Fisher Model 500 cone mid-range drivers, and a special Fisher Model 350 horn tweeter. Power is delivered to the drivers through a sophisticated minimum-phase crossover network with presence and brilliance controls accessible on the front panel. System response is essentially flat from 40 to 20,000 Hz, and the 130 watt



power capacity allows a pair of ST460's to generate disco sound levels of up to 112dB in a typical living room.

Do you have to have this kind of performance? Possibly not. But if a speaker can achieve these

levels with low distortion, then its performance at lower levels will be that much more impressive.

So if your decor can handle 30" high cabinets, and your budget can handle \$399.95* price tags, make it a point to experience the sound of a pair of ST460's. You'll find them at selected audio dealers or the audio department of your favorite department store.

*Manufacturer's suggested retail value. Actual selling price determined solely by the individual Fisher dealer.

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ST460



LETTERS TO THE EDITOR

The FCC and FM

● A strong "Amen" to the May issue's "You, Me, and the FCC" and plaudits to author Gary Stock for his perception. As a staunch discrete-quad and hi-fi advocate I am dismayed at the thought of degrading FM broadcasts by reducing the current 200-kHz channel spacing to 150 or 100 kHz. Such a change would be in total contradiction to the technical trends in the audio and music industries. The impending "audio explosion" due to digital recording is apparently recognized by the Corporation for Public Broadcasting but, out of political expediency, ignored by the FCC. As former FCC chairman Newton Minow said, most of TV and radio broadcasting is a "vast wasteland." One must question the FCC's emphasis on the quantity rather than the quality of programs. Where is its concern for preserving—and, one hopes, improving—FM broadcast standards?

In design and performance, today's FM receivers in many cases exceed the technical quality of current broadcasts. Let's not step backward, as the FCC seems to recommend, in the face of improving technology in broadcasting-related industries. STEREO REVIEW should preserve its own equity by pushing for discrete-quad FM standards from the FCC. And it is time for music buffs and audiophiles to appeal to the FCC for fair and reasonable consideration of their interests.

OSCAR P. KUSISTO
Los Altos, Calif.

Technical Director Larry Klein responds: We agree wholeheartedly with Mr. Kusisto in all but one respect. Considering today's improved four-channel matrix encoding/decoding technology, a discrete-quad broadcast system is not the way to go. Matrix four-channel broadcasts require little or no additional equipment at the broadcast end, whereas discrete four-channel broadcasting not only requires extensive revision of both transmitting and receiving equipment but would also result in deterioration of reception quality.

I have heard Peter Scheiber's "spatial decoder" produce simulated-quad wonders with normal stereo-FM broadcasts (besides its superb performance with matrix-quad discs and broadcasts). A state-of-the-art matrix decoder

will do sonically almost everything a discrete system will do, but with these advantages: separate decoders are not required for FM and records; no special encoding equipment is required at the broadcast station; no deterioration of the FM broadcast signal takes place; and, last but certainly not least, four-channel sound can be synthesized from normal stereo program material.

Reviewing Disco

● Accolades to Edward Buxbaum for his sensitive and thorough reviews of various disco records in the May issue. It is about time someone started making objective comments and criticisms of this ever-growing musical form. It seems worthy of note that Mr. Buxbaum handled all the disco reviews in that issue except one. Joel Vance took eight lines (fifty-nine words) to write off a Blackbyrds album without ever really telling us anything about it.

Perhaps Editor William Anderson's "Speaking of Music" in the same issue contains a word of caution for Steve Simels and countless other "critics" who after probably thirty seconds of listening write these albums off as "more disco drivel": "he who lives 100 per cent in the present has no future"—not to mention those who live in the past. Move over, rock, there's room for all of us in here!

JAY LAMKA
Troy, Ohio

The Editor replies: Well, as my grandmother used to say, you don't have to eat a whole egg to know it's rotten. It has been my experience, however, that critics usually do eat the whole thing; they are so constituted that they have to—they're afraid of missing something.

Stereo AM

● STEREO REVIEW's May "Bulletin" indicated that CKLW in Windsor, Ontario, would probably be the first radio station to serve North America with stereo AM. Station XTRA in San Diego, California, however, has been operating full-time with the Kahn/Hazeltine stereo-AM system since March 23, 1979.

We broadcast with 50,000 watts and cover all of Southern California plus parts of Arizona, Nevada, Oregon, and Washington, and nearly all of Baja California on good days.

Back in 1970, XTRA was one of the first stations to test the early Kahn system full-time, and we recently had our six-tower directional array broadbanded to pass higher-frequency audio and make it possible to broadcast in stereo with the new Kahn/Hazeltine system. The system is fully compatible with mono AM, and it has, in fact, given us greater control of our sidebands and produced a higher-quality AM signal. Our broadcasts can be received in stereo using either the Kahn receiver or two ordinary AM radios, one tuned slightly above and the other slightly below our carrier frequency. Though the separation is considerably better with the single-i.f. receiver, we chose this system because it allows any listener to participate. XTRA will, however, convert to whichever system the FCC finally approves.

RICH WOOD
Program Manager, XTRA
San Diego, Calif.

Musical Messages

● I was appalled by a sentence in Jerry M. Young's May letter about *The Basic Repertoire*: "I have just bought a stereo system, and choosing records has become almost as important to me as choosing the right components." I'm all for beautiful stereo sound, but I'd rather hear Mahler's Fifth on an old Victrola than some no-talent pop artist on the finest equipment available. The so-called audiophile should keep in mind that the whole point of a stereo system is the reproduction of music; the equipment itself is secondary. Someone concerned only with the technical aspects of stereo is ignoring the real pleasure to be gained from it. And *The Basic Repertoire* is fine, but an individual must go out and explore for himself the delights the world of music has to offer. That is a challenge, but I'm sure more satisfaction will be gained from it than from just picking someone else's favorites. The investment audiophiles make in their equipment should be used to experiment with different types of music—classical, jazz, or whatever turns one on—because what's really important is the message, not the medium.

MARK A. BRADLEY
Raytown, Mo.

Whose Hair?

● Too bad RCA used up all the space on the labels and cover of the soundtrack album from *Hair* listing technicians and flunkies. I really would have preferred knowing who sang what.

PAUL M. ROSE
San Francisco, Calif.

Open-reel Fan

● As an admirer of the music of Samuel Barber, I was very pleased to read Richard Freed's May review, in which he gave the composer some much-deserved praise, of the new Unicorn disc containing the Symphony No. 1, the First and Second Essays for Orchestra, and *Night Flight*. However, Mr.

Freed did readers who still prefer open-reel tape a disservice by failing to inform them that the same recording is also available on a Dolbyized tape, UN1-0342. I had already ordered the tape from Barclay-Crocker (11 Broadway, New York, N.Y. 10004) and, coincidentally, it and the May STEREO REVIEW arrived the same day.

WILLIAM H. THOMPSON
Burnsville, Minn.

Video Compatibility

● Last week I saw a demonstration of the new Magnavox videodisc system, Magnavision [see April "Audio/Video News"], and it

may be the future of the movie industry. Instead of spending \$4 to \$5 per person for movie tickets, consumers could go to their local record stores and pick up a record of a movie for \$16. If more than four people watched the videodisc—in the comfort and privacy of the home, moreover—there would be a cost saving on even one viewing.

I would buy a Magnavision system tomorrow if I knew it would become the standard of this new industry, but, as another reader noted in the May "Letters," it looks as if once again consumers may be playing in a crap game by purchasing a videodisc player. I hope the electronics industry won't give us a proliferation of incompatible videodisc systems. This product could become as commonplace

as stereo systems or even TV itself if it were marketed properly. Please continue to keep us informed of developments in this field.

ROBERT B. JOHNSON
Chicago, Ill.

Tonio K.

● I believe there's a touch of *One Flew over the Cuckoo's Nest* in the political and religious overtones of the "serious" humor of Tonio K.'s lyrics in "Life in the Foodchain" (reviewed by Steve Simels in the April issue). The musicianship is definitely heads-up, straight-on rock-and-roll. At first I thought Tonio K. was just a clone of the early Frank Zappa, but after listening to the whole album I went back for seconds to see what I had missed on the first go. As a part-time DJ, I considered violating our format and giving Tonio K. a little airplay (one night I snuck in my copy of *Nervous Nervus' Transfusion* as a filler), but I don't think our program director is progressive enough for *The Ballad of the Night the Clocks All Quit (and the Government Failed)*. "Life in the Foodchain" is my pick as the best thing to come out of the trash pile in a long time.

Vic Woods
Centerville, Ga.

Highhanded Opinion

● In the April issue James Goodfriend calls *The Musical Companion* "a treasure house of highhanded opinions, prejudices, snobberies, personal enthusiasms, and all those other things that make a book entertaining." How true! Now, if we only had a music magazine about which some of those things might be said! To paraphrase William Anderson paraphrasing Auntie Mame: "Life is a concert, and some poor editors are sitting there with ear muffs on."

MAURY MOLINA
Los Angeles, Calif.

Bee Gees

● I read the April edition of STEREO REVIEW. I could just die. Who do you think you are writing that the Bee Gees sound and look like Chipmunks in the story of Bee Gees vs. Falsettophobes? You have the nerve to say that. The Bee Gees are my No. 1 favorite group and if they like to sing with high voices they can—there's no law against it. Hell, I don't think they look like Chipmunks, especially *Robin*. I think falsetto is great even for men. The next time I read something in STEREO REVIEW that isn't very nice about the Bee Gees I will be on your case.

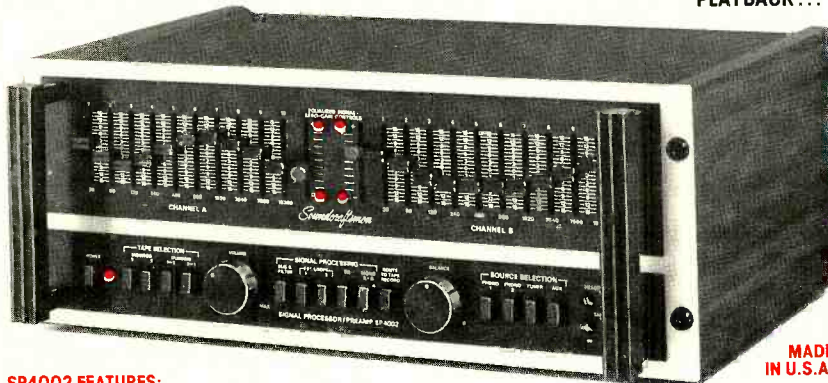
JEAN SMITH
Encinitas, Calif.

● I think Steve Simels' idea about the Bee Gees in his April review of "Spirits Having Flown" is really excellent, but there's a small error I just can't let him get away with. As far as I can determine, the Beach Boys never did a cover of Jan and Dean's *Sidewalk Surfin'*, which is the only song I know of that "rhapsodizes over a skateboard." And the "heart-breaking" falsetto in that song was Dean Torrence's, not Brian Wilson's. This wouldn't

(Continued on page 16)

Soundcraftsmen EQUALIZERS... PREAMP-EQUALIZERS... CLASS "H" AMPLIFIERS...

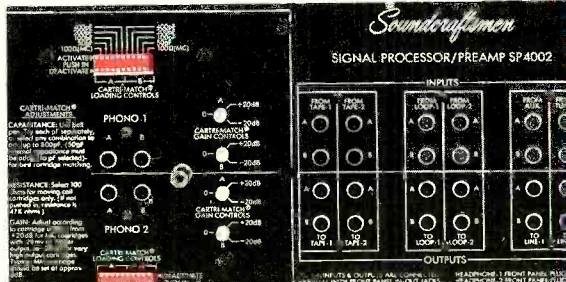
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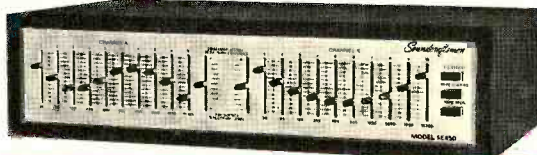
The new SP4002 SIGNAL PROCESSING Preamplifier is the most flexible preamplifier available. Its PUSH-BUTTON PATCHING capabilities are endless. The SP4002 was designed for those audiophiles who take a "HANDS ON" approach to their equipment. For tonal flexibility, we have included TWO TEN OCTAVE GRAPHIC EQUALIZERS for the tape enthusiast, the SP4002 is capable of handling up to three tape recorders with THREE WAY dubbing control. Along with this are TWO SIGNAL PROCESSING LOOPS for added accessories, a subsonic CARTRIMATCH™ phono preamplifier design allows the use of two moving coil cartridges without head amplifiers and ADJUSTABLE CARTRIDGE LOADING on phono 1 and phono 2 from 50 to 800 picofarads. Again the Soundcraftsmen tradition of "affordable separates" is continued.



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That means you'll get a lot of performance, too. Take the RS-M63's extended frequency response. With standard CrO₂ tape it's incredibly high; with metal tape it's simply incredible.

Wow and Flutter	Frequency Response	S/N
0.05% WRMS	20Hz-20kHz (metal) 20Hz-18kHz (FeCr/CrO ₂) 20Hz-17kHz (normal)	67 dB Dolby in

The RS-M63's separate HPF record and playback heads not only result in a very wide frequency response, they also work together so you can check the quality of your tape while recording it. There's also a ser dust/ferrite erase head, powerful enough to erase highly resistant metal tape.

When it comes to Dolby NR, the RS-M63 offers plenty of versatility. Because there are separate Dolby circuits for recording and playback. And that means you can monitor your tapes with the benefits of Dolby Noise Reduction.

To help you make recordings with plenty of dynamic range, the RS-M63 adds fluorescent (FL) bar-graph meters. They're completely electronic and extremely fast with a device attack time of just five millionths of a second. They're also accurate. So accurate that deviation from the 0 VU level is no more than 0.1dB. And that means the recording levels you see are the recording levels you get.

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The RS-M63. The only deck to consider when you consider its performance and its price.

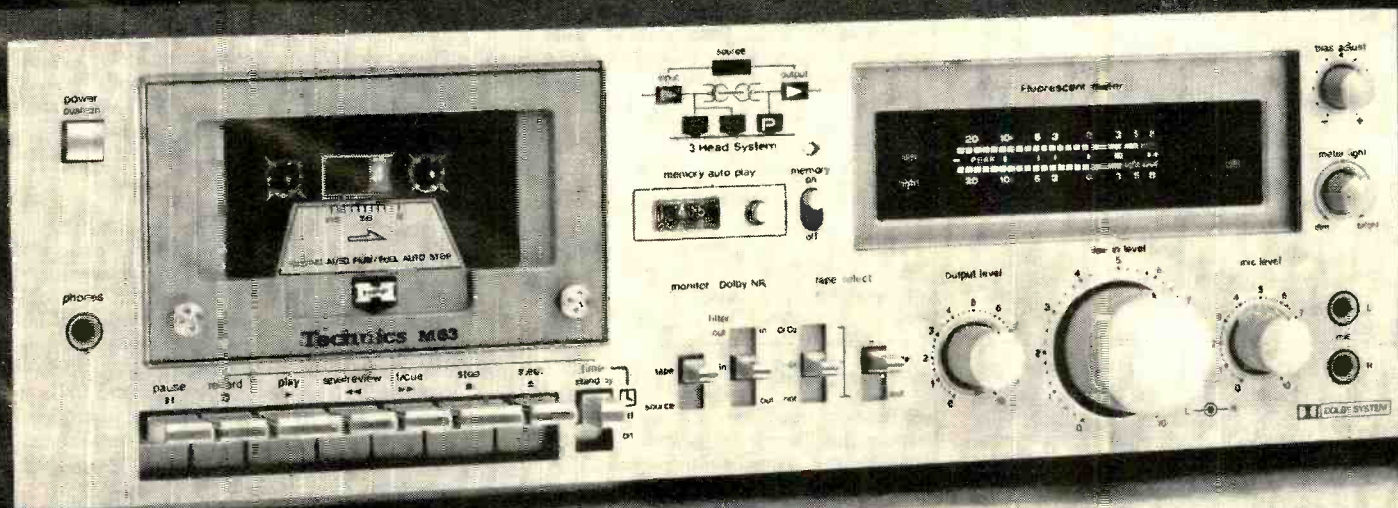
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matter so much if it weren't connected to Mr. Simels' calling Wilson and Smokey Robinson "the two most influential falsettos of the Sixties." I think Dean was more memorable, not only for the great heights of tone he could reach but for the profundity of his effects and their contributions to the sound of the songs. Even in the lightest of the Jan and Dean songs, Dean's falsetto had great emotional impact. It was Dean, not Brian, who carried the incredible high lead through *Barbara Ann*—and made the song with it.

JOHN H. SMITH JR.
Danville, Ill.

Steve Simels replies: Reader Smith is right that Sidewalk Surfin' was recorded by Jan and Dean, but the song is actually a rewrite of an earlier Beach Boys album cut called Catch a Wave. Brian Wilson merely changed the lyrics to one of his lesser surf epics to cash in on the then brand-new skateboard craze and slipped the song to his good buddies Jan and Dean. But what I should have said was that Brian could break your heart even if he was rhapsodizing over a carburetor.

Alexander Harvey

● Peter Reilly was in error in his April review of the new Tanya Tucker album when he credited her with the song *Delta Dawn*. It was, in fact, written by Lou Collins and the overlooked singer-songwriter Alexander Harvey. Harvey was also responsible for the songs *Reuben James*, *Tulsa Turnaround*, *Tell It All Brother*, and *Rings*. His songs have been recorded by such artists, besides Tanya Tucker, as Lobo, Kenny Rogers, Bette Midler, Three Dog Night, and Helen Reddy. As a singer he has had three solo albums on Capitol ("Alex Harvey," ST-789; "Souvenirs," ST-11128; "True Love," ST-11188), one on Kama Sutra ("Preshus Child," KSBS 2618), and one—his latest, released in January 1978—on Buddah ("The Purple Crush," BDS 5696). Maybe some day in the not too distant future one of his records will be a hit.

BILLY MIGICOVSKY
Montreal, Quebec

Know It All

● Larry Klein's admission in the April "Audio Q. and A." that he doesn't know it all has burst my balloon. Less hardy readers will probably cancel their subscriptions. I plan to tear out and save his pages from future issues.

L. W. LAKRITZ, M.D.
Beloit, Wis.

Larry Klein replies: I trust Dr. Lakritz has by now recovered from the shock of my non-omniscience. If not, perhaps two aspirin. . . . Incidentally, I've changed my mind on the matter. If I know what I know and I know what I don't know, then I do know it all.

Mounting Cartridges

● Concerning Dan Snyder's April letter about the hassle of installing phono cartridges, the answer to his problem is to cease dealing with retail outlets that offer such terrible service. As the manager of a retail audio store, I can safely say that no store that val-

ues its reputation would sell one of the complex little jewels to which Mr. Snyder refers without at least offering to mount it, adjust it to the tone arm, etc. Where do some of these sophisticated, educated audiophiles choose to spend their audio dollars? Self-service gas stations?

JOSEPH S. YOUNG
Corpus Christi, Texas

Depravity Subsidized

● I can't pretend to be surprised by Steve Simels' criticism of the McGuinn, Clark, and Hillman album ("George Harrison and Other Bored," April 1979). I also remember his review of the last Crosby, Stills, and Nash effort, in which he used similarly depraved reasoning. After all, as everyone knows, any music that might be popular has got to be trash or, worse, a "sell-out." If Mr. Simels' skull were half as "lived-in" as Gene Clark's voice, we would have much better criticism. What does surprise me, though, is that Mr. Simels apparently gets paid for his opinions.

BRUCE CAMPBELL
Port Jefferson, N.Y.

Vox's Continuity

● I was, of course, delighted to read the most complimentary comments about Vox Productions in James Goodfriend's March "Going on Record." However, quite frankly I feel that I do not deserve that much credit for the work I have done since the creation of the company in 1945. One does not usually deserve special credit for work one immensely enjoys and from which one gets so much professional satisfaction.

I would like to set the record straight on several points. Vox Productions, Inc., as a company, was not sold and, therefore, is not now—and I would even state never will be—a division of the Moss Music Group, Inc. Among the assets that I *did* sell to the Moss Music Group, however, are the Vox, Turnabout, etc. trademarks. I am still the president of Vox Productions (not an employee of Moss Music) and will, by contract, continue to be in charge of the classical repertoire on the Vox labels, including selecting the artists, exactly as I have done for the past forty years. Ira Moss is extremely cooperative and understanding, and I can safely assure all our friends that for the next few years the Vox, Turnabout, and Vox Box recording programs will follow the same pattern as in the past.

GEORGE H. DE MENDELSSOHN-BARTHOLDY
President, Vox Productions, Inc.
New York, N.Y.

Love and Marriage

● Phyl Garland's splendid December 1978 review of Ashford and Simpson's "Is It Still Good to Ya" begins with the remark that she doesn't know "what's going on personally between Nicholas Ashford and Valerie Simpson." Well, they happen to be married. They got married, I believe, about five years ago, after collaborating on such Diana Ross hits as *Reach Out (Touch Somebody's Hand)* and *Ain't No Mountain (High Enough)*.

DAVID LONDON
Santa Maria, Calif.



ALL ABOUT AUDIO

everything you ought to know to get the best sound from your system

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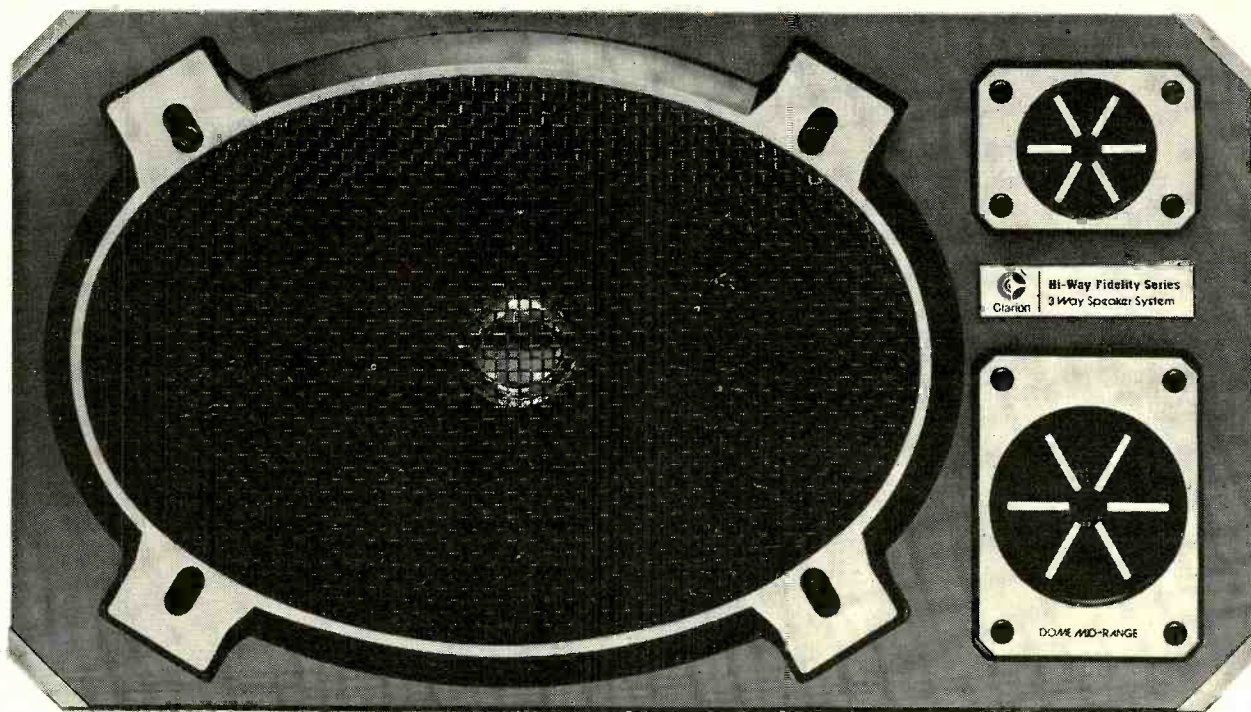
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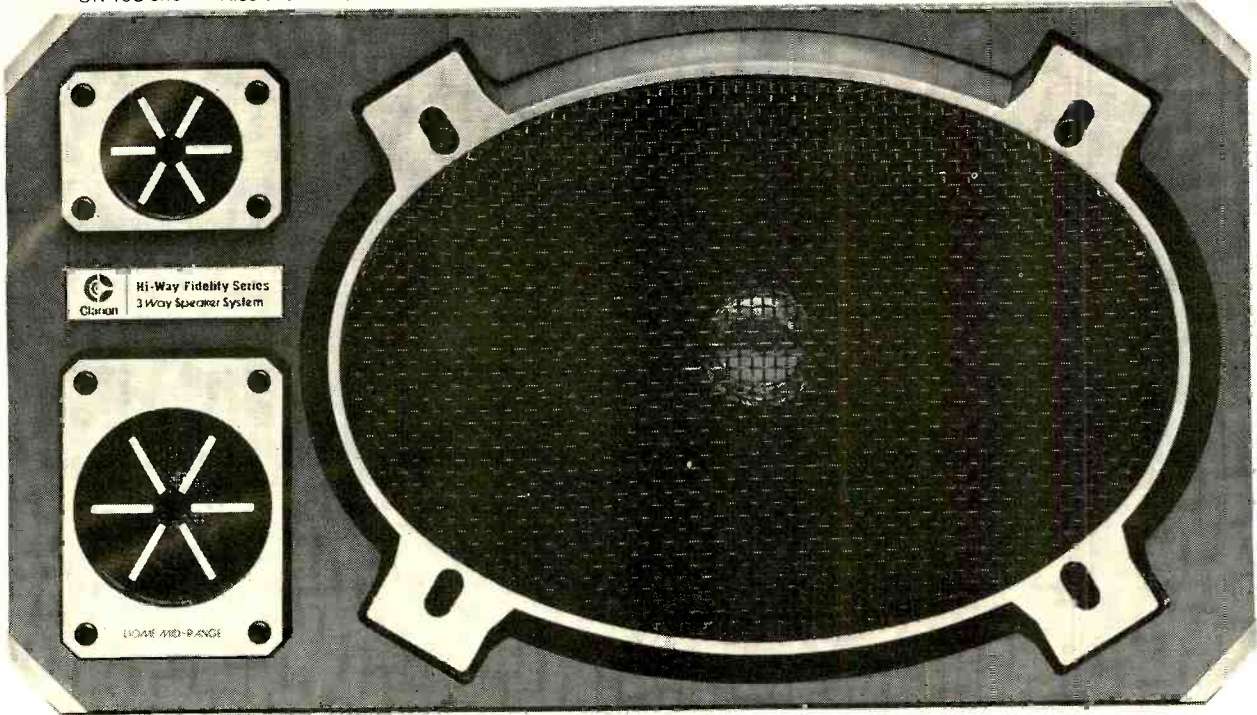
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The Clarion car speaker domes vs. the clones.

SK-103 shown. Also available, the Clarion SK-102 for mid-size domestic cars. See your dealer for further information.



Clarion offers a dome mid-range, a dome tweeter and woofer for *true* hi-fidelity. These are the same types of quality speakers that are used in high-end home speaker systems, and the same types of systems that many audiophiles prefer.

Domes give you better sound dispersion. No matter where you're sitting you get clear, clean sound throughout the whole listening area.

Clarion was the first car speaker manufacturer to perfect the use of three independently mounted speaker components in an integrated system.

When you mount any speaker components in front of the woofer the sound can get blocked or distorted. A simple principle that the clones overlook. But with Clarion's independently mounted speakers you get a clean vibrant, open sound. Real life-like sound. Just like you get with quality home speakers.

But Clarion's speaker advancements don't stop there.

We also use Mylar Capacitors for improved frequency response (so you can hear *all* the music), and they also help make Clarion the most efficient 3-way car speaker you can buy. High efficiency means you get more great Clarion sound with less power.

Send in the Clarion coupon and we'll send you more information.

They'll probably send you information on clones.

The coupons prove Clarion outperforms the clones...

Jensen, the Clarion people suggested I get more information from you on your integrated 3-way car speaker system.

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Sanyo, the Clarion people suggested I get more information from you on your integrated 3-way car speaker system.

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1200 W. Artesia Blvd.
Compton, CA 90220

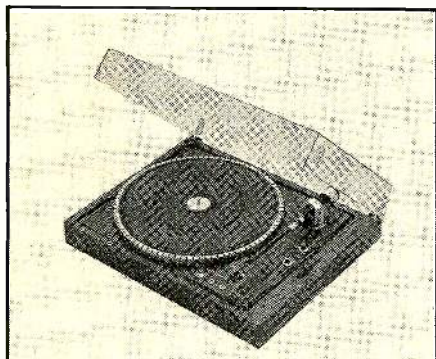
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New Products latest audio equipment and accessories



Two Medium-price Turntables From Thorens

□ Thorens has introduced two medium-price, belt-drive turntables, the fully manual Model TD-104 (shown) and the semiautomatic Model TD-105, both using Thorens' "Iso-track" arm format and a d.c. motor governed by a seventy-two-pole tachogenerator. The turntables incorporate a number of ancillary features usually associated with higher-price units, including ± 6 per cent pitch controls for 33 $\frac{1}{3}$ - and 45-rpm speeds, an integral stroboscope, and LED-illuminated "soft-touch" switches for speed selection. The tone arms of the two units use detachable plug-in arm-tube assemblies, rather than removable head shells, to reduce total arm mass; effective mass of this arm without cartridge is 7.5 grams. Specifications of the TD-104 and TD-105 include a DIN wow and flutter figure of 0.05 per cent, unweighted rumble of -48 dB (DIN weighted, -65 dB), a tone-arm length of 8 $\frac{3}{4}$ inches, tone-arm bearing friction of 25 milligrams or less in either plane, and dimensions of 17 $\frac{1}{8}$ x 5 x 15 $\frac{1}{2}$ inches. Prices: TD-104, \$285; TD-105, \$350.

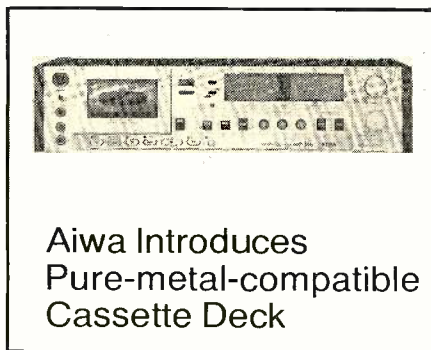
Circle 120 on reader service card



A Tunable FM-antenna Amplifier

□ The Magnum FM Power Sleuth is a radio-frequency amplifier designed to boost the level of an FM signal received by a separate an-

tenna system. The device is connected via screw terminals to the antenna lead-in and the tuner input, and it is operated by tuning the front-panel dial to the frequency of the desired station. The Magnum unit is usable with any type of antenna (including rabbit ears) and is said to be valuable both in fringe areas and for urban reception. Specifications include a maximum radio-frequency gain of 35 dB, spurious-response rejection of 90 dB or greater, image rejection of 85 dB or more, and a maximum noise factor of 7 dB. The unit has a walnut-grain vinyl-clad enclosure and measures approximately 4 $\frac{1}{2}$ x 8 x 8 $\frac{1}{2}$ inches. Price: \$150. For further information, write to Audio Marketing, Dept. SR, 11 Royal Crest Drive, North Andover, Mass. 01845.



Aiwa Introduces Pure-metal-compatible Cassette Deck

□ The Aiwa AD-6700 U is a two-motor, two-head cassette deck designed for use with both conventional and pure-metal tapes. The transport system has light-touch controls that activate solenoids through a logic circuit; cue and review capabilities are both included. The capstan is driven by a thirty-eight-pulse motor that is frequency-governed by a servo loop. A second, d.c. servo motor is used for fast-forward, take-up, and rewind functions; rewind time is 65 seconds for a C-60 cassette. The weighted rms wow and flutter specification for the AD-6700 U is 0.04 per cent or less.

Frequency response is 25 to 15,000 Hz $+2$, -3 dB with conventional ferric tape and 25 to 17,000 Hz $+2$, -3 dB with chromium-dioxide, ferrichrome, and pure-metal tapes. Signal-to-noise ratio is 54 dB with ferric tape and the Dolby system off; with Dolby on it is 65 dB with ferrichrome and 67 dB with pure-metal tape. The record/play head of the deck is of "Sendust Guard" construction.

Front-panel features of the AD-6700 U include memory and timer functions, VU-type record-level meters that can also be set to indicate tape time remaining, fine-adjustment bias controls for ferric, ferrichrome, and chromium-dioxide tapes, and dual three-position switches for bias and equalization selection. A nine-element LED array next to the meters indicates peak levels (or holds peaks) over a range of -15 to $+10$ dB. A wireless remote-control unit is included with the deck. Dimensions of the AD-6700 U are 18 $\frac{3}{4}$ x 4 $\frac{3}{4}$ x 13 inches. Price: \$750.

Circle 121 on reader service card



Fluid Antistatic Record Preservative From Stanton

□ Stanton's "Permostat" record preservative is a fluid that permanently destaticizes records with a single application; the material is applied by pump spray and then wiped into the record grooves. The static charge on a disc is reduced from as high as 15,000 volts to zero after one application, and the disc is then immune to further induced static charge. Permostat is also said to be beneficial in terms of record wear, preventing the attraction of dust to the disc surface and therefore the abrasion caused by this dust. The complete Permostat kit contains a 3-ounce bottle of Permostat (sufficient to treat both sides of twenty-five discs), pump sprayer, record-buffing brush, instruction sheet, and record identification tabs. Price: \$19.95. Refill bottles of the fluid are available for \$15.95.

Circle 122 on reader service card

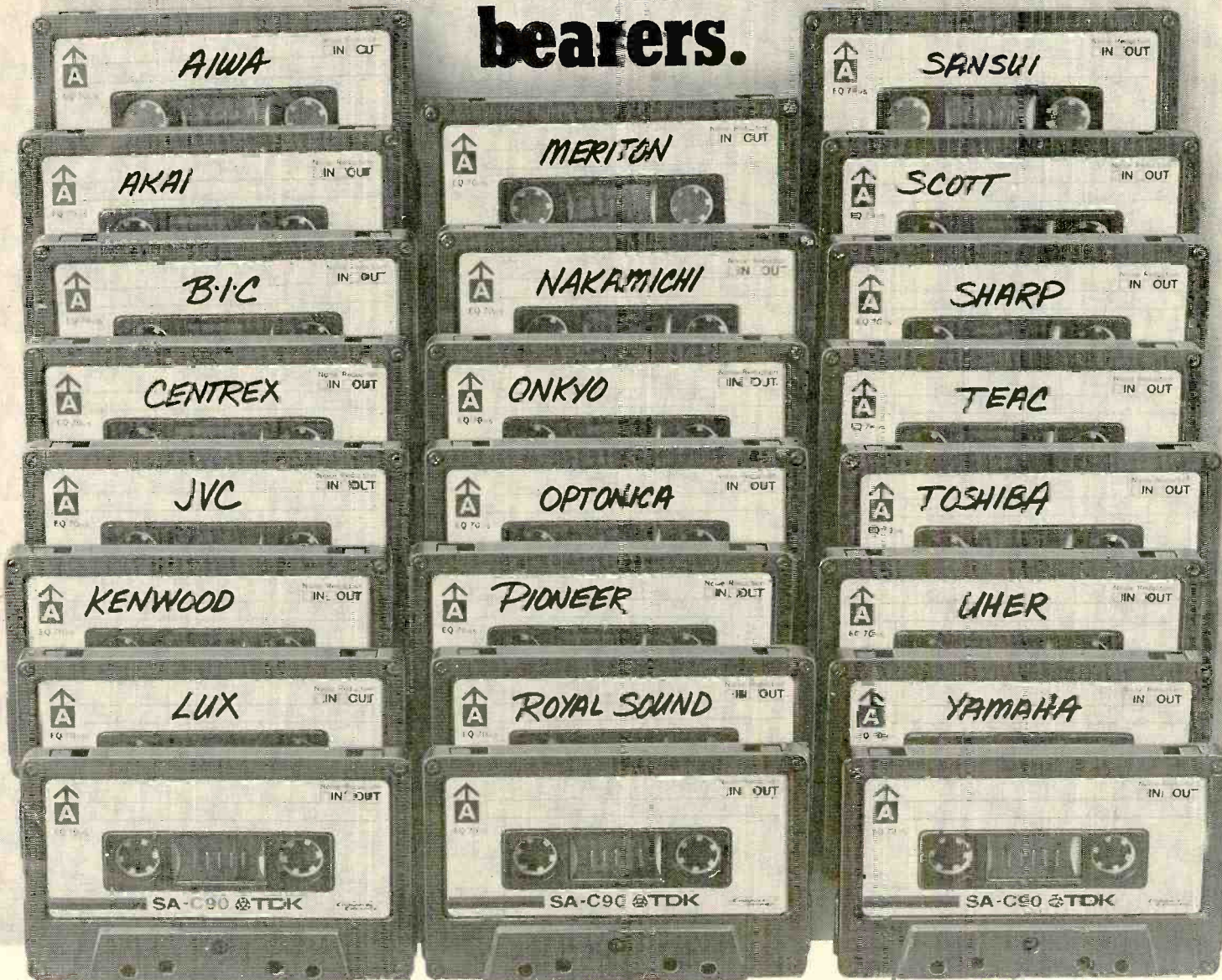


Medium-price Three-head Cassette Deck from Teac

□ Teac's A-300 is a single-motor, front-loading cassette deck that features three heads and two sets of Dolby circuits; these make it capable of monitoring tapes during recording in Dolby decoded form. The transport mechanism has a single capstan and uses a servo-controlled d.c. motor whose speed is regulated by comparing it with a reference frequency. The wow-and-flutter rating of the A-300 is 0.07 per cent weighted rms, and rewind time for a C-60 cassette is 90 seconds.

(Continued on page 22)

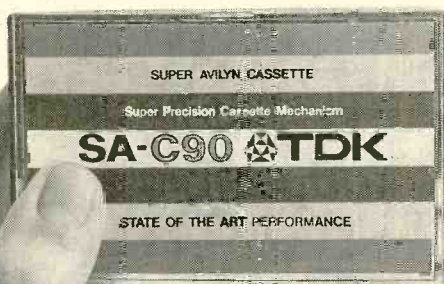
The standard bearers.



The high bias standard.

In the past few years, these fine deck manufacturers have helped to push the cassette medium ever closer to the ultimate boundaries of high fidelity. Today, their best decks can produce results that are virtually indistinguishable from those of the best reel-to-reel machines.

Through all of their technical breakthroughs, they've had one thing in common. They all use TDK SA as their reference tape for the high bias position. These manufacturers wanted a tape that could extract every last drop of performance from their decks and they chose SA.



And to make sure that kind of performance is duplicated by each and every deck that comes off the assembly line, these manufacturers use SA to align their decks before they leave the factory.

Which makes SA the logical choice for home use; the best way to be sure you get all the sound you've paid for.

But sound isn't the only reason SA is the high bias standard. Its super-precision mechanism is the most advanced and reliable TDK has ever made—and we've been backing our cassettes with a full lifetime warranty* longer than anyone else in hi fi—more than 10 years.

So if you would like to raise your own recording standards, simply switch to the tape that's become a recording legend—TDK SA. TDK Electronics Corp., Garden City, NY 11530.



TDK

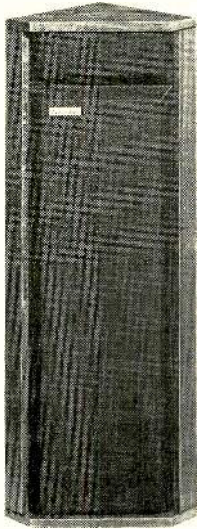
The machine for your machine.

*In the unlikely event that any TDK cassette ever fails to perform due to a defect in materials or workmanship, simply return it to your local dealer or to TDK for a free replacement.

CIRCLE NO. 49 ON READER SERVICE CARD

ALLISON: THREE

The Elegant Solution



With few exceptions, loudspeaker systems have always been designed to have flat response in anechoic chambers (test rooms with completely sound-absorptive boundaries).

This is odd, because loudspeakers are hardly ever used in anechoic environments. Most are used in domestic living rooms. Recent research shows that a real room changes a loudspeaker's performance drastically, and designing for flat response in an anechoic chamber simply doesn't make sense any more.

The most intense room effects occur when a loudspeaker is used in a corner, where reflections from the nearby room surfaces can cause a variation of 20 dB in acoustic power output. A corner, therefore, is the worst place to put a conventional loudspeaker system.

But if a corner imposes the most severe penalty for a misdirected design, it also gives the reward of maximally enhanced performance for a loudspeaker system correctly matched to that location. The woofer's radiation load, when stabilized by proper design, will be at its peak value in a corner.

The ALLISON: THREE™ Room-Matched™ loudspeaker system is the only high-fidelity speaker designed for proper use in a room corner that we know of, except for very much larger and more expensive corner horn enclosures. It is the elegant solution to the loudspeaker/room interface problem.

Price of the ALLISON: THREE system is \$290.* Descriptive literature, complete specifications, a statement of Full Warranty for Five Years, and a list of dealers are available on request.

*Higher in the South and West because of freight cost.

ALLISON ACOUSTICS

7 Tech Circle, Natick, Massachusetts 01760

CIRCLE NO. 1 ON READER SERVICE CARD

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latest audio equipment and accessories

Frequency response of the A-300 is rated as 30 to 16,000 Hz ± 3 dB with chromium-dioxide tape and 30 to 13,000 Hz with conventional ferric tape. The signal-to-noise ratio is 55 dB without the Dolby system operating and approximately 65 dB with it in use. Front-panel features of the unit include two-position bias and equalization selector switches, separate sets of concentric controls for microphone and line-input levels (with mic/line mixing capabilities), an output-level control, memory rewind, and a headphone jack. Dimensions are approximately 16¼ x 6¼ x 11½ inches. Price: \$429.

Circle 123 on reader service card



Bose Introduces "Spatial Control" Receiver

The Bose "Spatial Control" receiver is a 100-watt-per-channel AM/FM stereo unit (when its four amplifiers are bridged two and two) designed especially for use with the Bose 901 Series III and Series IV speakers, though other loudspeakers may be used. It incorporates a number of unusual features and control functions, most of them related to giving the listener a degree of control over the lateral spatial perspective of the stereo image. With the exceptions of the volume, tuning, and power controls, all control switches and sliders are concealed behind a wooden panel that can be tilted down for access. A Spatial Control expands or reduces the stereo spread (when the receiver is being used with the 901 speakers) by feeding slightly different signals to each of the two rear panels of each speaker (in this mode, four power-amplifier channels are in use). The differences in the signals relate to their spectral balance and level. In lieu of tone controls, the unit has high- and low-frequency compensation controls and two switches that further contour the bass output of the system to match room acoustics. Other controls include FM muting, tape monitoring for two tape machines, and speaker-selection switches, as well as a headphone jack powered by a separate amplifier.

Specifications of the Spatial Control receiver include total harmonic and intermodulation distortion ratings of 0.09 per cent or less, a phono signal-to-noise ratio of 83 dB (A-

weighted, with inputs shorted), and RIAA equalization accuracy to within 0.3 dB of ideal. Phono overload occurs at 145 millivolts, and the loudness-compensation circuit boosts response by a maximum of 8 dB at 100 Hz and 3.5 dB at 10,000 Hz. Usable FM sensitivity is 1.9 microvolts, sensitivity for 50-dB quieting in stereo is 35 microvolts, capture ratio is 1.8 dB, and total harmonic distortion in stereo is 0.25 per cent or less. Dimensions of the receiver are 20½ x 6½ x 16¾ inches, and the weight is 36½ pounds. Price: \$799.

Circle 124 on reader service card



Realistic Receiver Features a Digital Readout

The Realistic STA-240 AM/FM receiver is equipped with a four-digit station-frequency display in addition to a conventional slide-rule tuning dial. The receiver also incorporates an automatic fine-tuning system, called "Auto-Magic," that operates after the tuning knob is released to tune the station fully. A lamp lights when proper tuning has been achieved. In lieu of conventional tuning meters, the STA-240 has a five-LED array.

Specifications of the STA-240 include a power output of 60 watts per channel, both channels driven into 8 ohms over a 20- to 20,000-Hz bandwidth. Total harmonic distortion under these conditions is no greater than 0.15 per cent; intermodulation distortion for a 50-watt output is 0.06 per cent or less. Signal-to-noise ratios are 68 dB on phono and 85 dB on auxiliary inputs, and the phono preamplifier has RIAA equalization accurate to within 2 dB of ideal. The receiver's bass and treble controls alter frequency response at 100 and 10,000 Hz by ± 10 dB. The usable sensitivity of the FM tuner section is 1.9 microvolts (10.8 dBf), and the ultimate tuner signal-to-noise ratio is 70 dB. Capture ratio is 1.5 dB; alternate-channel selectivity is 70 dB. The AM tuner section of the STA-240 is unusual in that it has an automatic AM bandwidth control said to provide wide bandwidth on strong signals but reduced bandwidth on weaker stations. Dimensions of the STA-240 are 19¼ x 6 x 15¾ inches. Price: \$429.95.

Circle 125 on reader service card

(Continued on page 24)

ADC has four Sound Shaper frequency equalizers that will improve your sound system. No matter how good it is. And at a cost that's lots less than trading in your components.

ADC Sound Shapers will improve your speakers. By extending mid bass hump while simultaneously extending the true bass response.

ADC Sound Shapers will improve the relationship between your cartridge and speakers. From one of partial incompatibility to total compatibility.

They'll also eliminate rumble (low frequency overload), tape hiss and record scratches.

And that only scratches the surface of what ADC Sound Shapers can do. For instance, the walls, carpeting and furniture of your listening room physically bounce sound around so that some spots have less sound than other spots.

Lots less. ADC Sound Shapers will bring these "dead" spots to life.

Perhaps best of all, though, is a Sound Shaper's ability to let you re-equalize what a recording engineer mixed. If a horn section is overwhelming a piccolo, for example, you just slide the appropriate frequency lever. Presto, more piccolo. You can also vanquish a voice. Or boost a tuba.

Sound Shapers segment the entire spectrum of sound. To let you re-shape a sound track to your personal musical preferences. It's all the control you've ever dreamed of but never dreamed possible.

To get into equalizers, start with our Sound Shaper One which operates in five frequency ranges. Or our Sound Shaper One Ten which gives you greater control by operating in ten frequency ranges.

For more professional equalizers, there's our Sound Shaper

Two Mk II which functions in twelve frequency ranges with a two-channel LED meter. And there's our new Sound Shaper Three Paraphrastic Equalizer.

It combines all the advantages of a graphic equalizer with all the advantages of a parametric equalizer. Twelve primary frequency controls per channel. Plus twenty-four ancillary control positions per channel. The Sound Shaper Three is the ultimate in controlling and creating with your stereo system.

Take the ultimate step up in sound, without trading in a thing.

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HOW TO TRADE UP YOUR RECEIVER, TUNER, AMP, TURNTABLE, CARTRIDGE AND SPEAKERS WITHOUT TRADING IN A THING.



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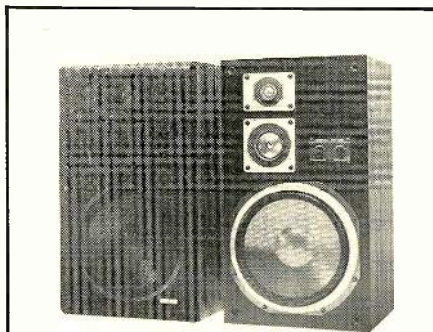
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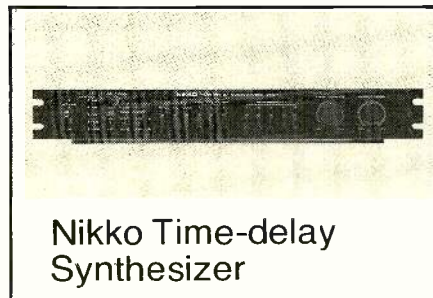
latest audio equipment and accessories



Hitachi Speaker Uses Metal Cones And "Gathered Edge"

□ The Hitachi HS-430 is a three-way vented loudspeaker system that uses cones made of sheet-metal alloys that are said to act in a more closely piston-like fashion than paper cones. Both the bass and midrange drivers of the speaker also use the proprietary Hitachi "Gathered Edge" suspension, a patented surround shape that is formed of compound folds and is said to be linear throughout the speakers' range of excursion. The driver complement of the HS-430 includes a 12-inch aluminum-cone woofer that crosses over to a 2½-inch aluminum-cone midrange at 700 Hz, which in turn crosses over at 4,000 Hz to a 1-inch titanium-dome tweeter. The impedance of the system is nominally 8 ohms, and the crossover network, which is mounted on the front panel of the unit, includes level-adjustment controls for both the midrange and treble drivers. The system's sensitivity is rated as 92 dB output, measured at one meter, for a 1-watt input, and power handling is 120 watts on musical material. Frequency response of the HS-430 is 35 to 20,000 Hz. Cabinet finish is walnut veneer, and overall dimensions of the system are approximately 26¼ x 15 x 14 inches. Price: \$399.95.

Circle 126 on reader service card



Nikko Time-delay Synthesizer

□ The Nikko ATD-1 is the first time-delay synthesizer to be imported into this country from the Far East. The unit uses controls that

permit adjustments to match a wide variety of reverberant environments. A choice of three hall sizes, three hall "characters" (determined by the amount of reverb in the system), five levels of reverberation, and a continuously adjustable stage-distance control are all available on the front panel, as are a tape-monitor loop, a direct-vs.-delay comparison switch, a two- or four-channel output selector, an input level control, and a four-LED level-indicator array. Specifications of the ATD-1 include a total-harmonic-distortion rating for the direct outputs of 0.05 per cent or less and for the delayed outputs of 0.6 per cent or less, signal-to-noise ratios of 80 dB (direct) and 60 dB (delayed), and frequency responses of 20 to 20,000 Hz ±0.1 dB (direct) and 20 to 2,500 Hz ±3 dB (delayed). Reverberation time may be varied between 0.1 and 2 seconds. Initial delays are 13, 22, 47, and 64 milliseconds in the small-hall position; 17, 38, 62, and 85 milliseconds in the medium-hall position; and 25, 57, 94, and 128 milliseconds in the large-hall position. Dimensions of the rack-mountable unit are approximately 19 x 2½ x 11½ inches. Price: approximately \$450.

Circle 127 on reader service card



Passive Switching Systems for Speakers And Tape Recorders

□ The Dubie Corporation recently introduced a line of passive (nonpowered) switching systems designed to permit routing of signals between multiple tape recorders or speakers. Four models make up the series. The CD-5 Sound Control System connects three tape recorders (or other line-level sources) to a central receiver or amplifier in a configuration that permits input signals to be routed to any of the recorders as well as dubbing, mixing of one recorder's output with an input source, and both playback and monitoring of signals from any of the recorders. The CD-5 measures 9¾ x 4 x 4¾ inches. The CD-10 Sound Control System performs these same functions and connects a receiver or amplifier to six tape recorders or line-level sources. It measures 13¾ x 4 x 5¾ inches.

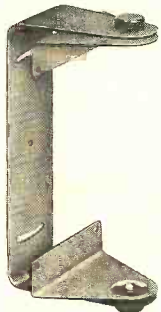
The CD-35 Sound Control System (shown) connects five tape recorders, an auxiliary source, two turntables, and four signal-pro

(Continued on page 26)

The sound is familiar. The PRICE is the SURPRISE!

REALISTIC® Minimus-7

This amazing little hi-fi speaker costs only about a third as much as some mini speakers, but we think they compare very favorably. How could they? Well, we gave ours a heavy-magnet large-excursion 4" woofer, a soft-dome wide-dispersion 1" tweeter, a precise L-C cross-over network, and a diecast aluminum enclosure. The result is astonishing bass and crisp highs from a 7-1/6" tall system that fits on any bookshelf. Audio response is 50-20,000 Hz and power capacity is 40 watts RMS. All for only 49.95* each.



Now listen to this! Just 14.95* buys you a pair of the fully adjustable mounting brackets pictured here, so you can install two Minimus®-7s in your car. Or van or pickup or RV. Discover Minimus-7, the mini-size, maxi-value speaker for home or mobile use. Sold only at Radio Shack.

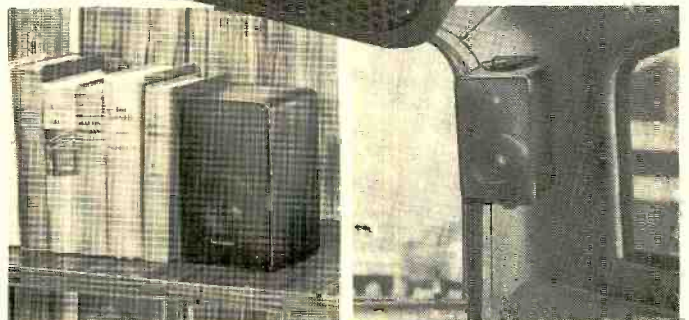
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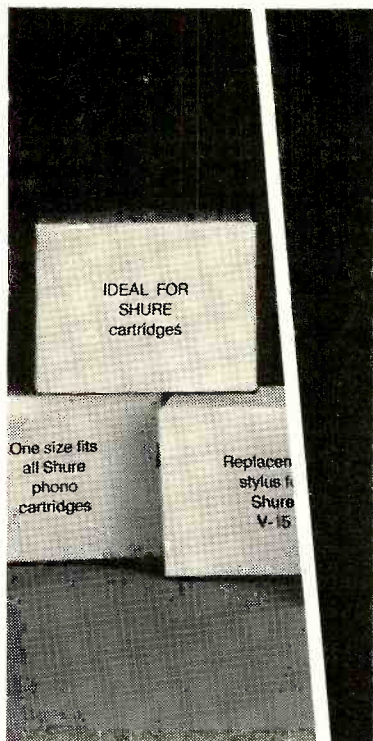


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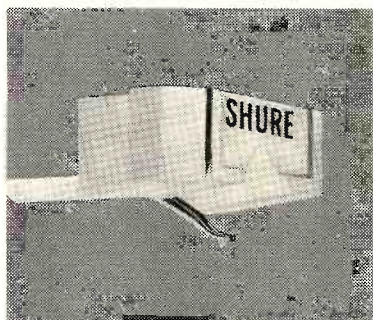
latest audio equipment and accessories



Needle in the hi-fi haystack

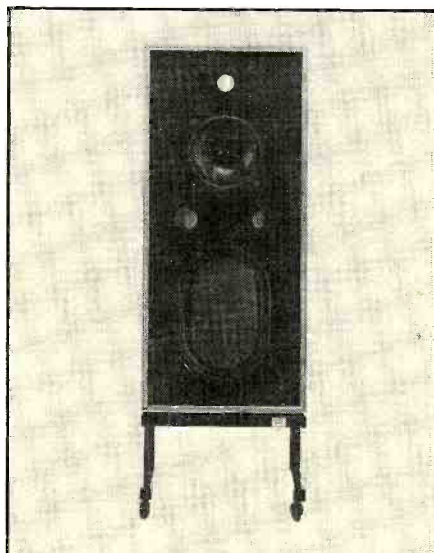
Even we were astounded at how difficult it is to find an adequate other-brand replacement stylus for a Shure cartridge. We recently purchased 241 random styli that were not manufactured by Shure, but were being sold as replacements for our cartridges. Only ONE of these 241 styli could pass the same basic production line performance tests that ALL genuine Shure styli must pass. But don't simply accept what we say here. Send for the documented test results we've compiled for you in data booklet # AL548. Insist on a genuine Shure stylus so that your cartridge will retain its original performance capability—and at the same time protect your records.

Shure Brothers Inc.
222 Hartrey Ave., Evanston, IL 60204
In Canada: A.C. Simmonds & Sons Limited



Manufacturers of high fidelity components, microphones, sound systems and related circuitry.
CIRCLE NO. 39 ON READER SERVICE CARD

cessing units to a central receiver or amplifier with routing capabilities similar to those of the CD-5. It measures 16¾ x 8 x 5½ inches. The CD-25 Speaker Control System controls the volume of four pairs of loudspeakers using autotransformers whose controls attenuate in discrete 2- or 3-dB increments. Power handling is 20 watts per channel. The CD-25 measures 9¾ x 4 x 4¾ inches. Prices: CD-5, \$99.95; CD-10, \$149.95; CD-35, \$399.95; CD-25, \$189.95. For further information, write the Dubie Corporation, Dept. SR, 1725 Ladera Trail, Dayton, Ohio 45459.

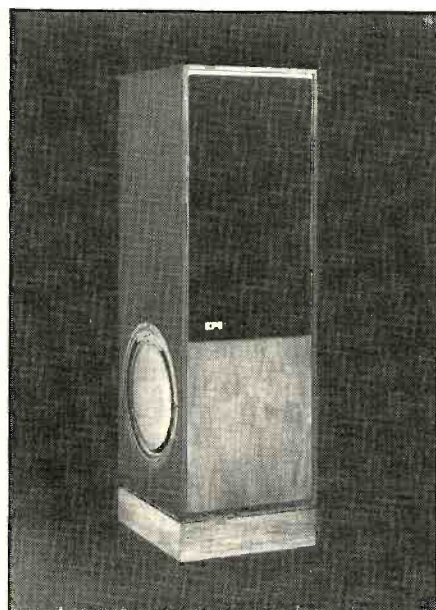


Monitor Audio Speaker Uses Plastic Cone Materials

□ The Monitor Audio MA1 Series II is a three-way vented loudspeaker system using drivers constructed with plastic, rather than paper-fiber, cone assemblies. Advantages of plastic-cone construction are said to include resistance to changes in performance as a result of varying humidity or temperature and greater unit-to-unit consistency. The bass driver of this speaker is a 13 x 9-inch oval unit with a diaphragm constructed of styrene foam covered with a stressed-aluminum "skin." This driver crosses over at 375 Hz to a 6½-inch midrange driver having a Bextrene plastic cone and a half-roll surround. At 3,000 Hz, this unit in turn crosses over to a 1-inch tweeter with a treated polycarbonate dome.

The enclosure of the speaker is available with either walnut or rosewood finishes and is of "edgeless" construction to reduce cabinet-diffraction effects. It is internally damped with panels of the petroleum-based material known as bitumen, which is said to be extremely antiresonant. Frequency response of

the MA1 is rated at 45 to 19,000 Hz ±3.5 dB, and the speaker requires a 12-watt input for a 96-dB output (measured at one meter). Dimensions are 30 x 13½ x 15 inches. Prices: walnut, \$470; rosewood, \$500. For further information, write: Audiosource, Dept. SR, 1185 Chess Drive, Foster City, Calif. 94404.



Three-way EPI Speaker Has Dual Passive Radiators

□ The Epicure Model 500 is the first speaker from that company to use a three-way design approach. The columnar system has a driver complement of one 10-inch active bass driver using a magnetic structure EPI calls "Focused Field," two 12-inch passive radiators having styrene-foam cones mounted in the sides of the enclosure, a 4-inch sealed-back midrange driver, and a 1-inch tweeter. Crossover frequencies are 750 and 3,000 Hz, and the crossover slopes are 12 db per octave or more.

Frequency response of the speaker is stated to be 50 to 20,000 Hz ±3 dB. Minimum recommended power is 15 watts, and maximum input power is rated at 500 watts peak. Nominal impedance is 4 ohms; EPI notes that the impedance curve of the system is essentially flat.

Sensitivity of the speaker is 88 dB for a 1-watt input as measured at a distance of 1 meter. Dimensions are approximately 36 x 12 x 14 inches, weight is 50 pounds, and the cabinet finish is oiled walnut. Price: \$400.

Circle 128 on reader service card

(Continued on page 28)

fact:
viscous-damping
straightens out
all your records



your favorite record may be a tangle of warps

Your phono cartridge "sees" such records as twisted, heaving surfaces, jolting up and down 0.5 to 8 times a second. Even records that look flat have warps, and a warped record can change the cartridge-to-record distance, the tracking force, and the vertical tracking angle. Warps produce frequency "wow" and distortion, and can dangerously overload speakers and amplifiers.

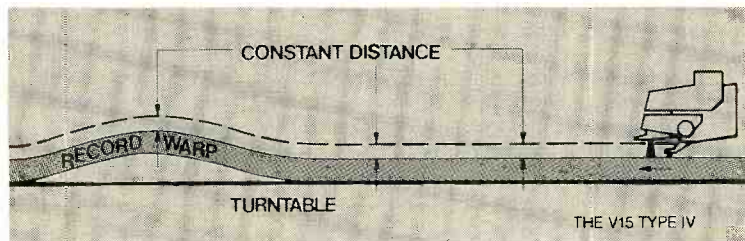
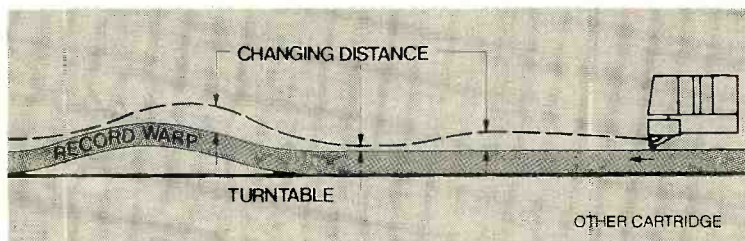
What's more, somewhere between 5 and 15 Hz, every tone arm-cartridge system has a resonance frequency—a frequency at which a warp will produce an exaggerated response that may result in mistracking and in extreme cases, cause serious damage to both the record and stylus.

The Shure V15 Type IV is the first cartridge in the world to incorporate effectively the principles of viscous damping. The Dynamic Stabilizer acts something like a "shock absorber," carrying the cartridge over surface irregularities without distortion, without bottoming out, and without risk of damage to records or stylus. It even protects the stylus should it be dropped accidentally onto the record.

the role of the Dynamic Stabilizer:

The V15 Type IV's Dynamic Stabilizer makes certain you hear the recorded information, not the warps. The viscous-damping system of the Dynamic Stabilizer resists rapid changes in the cartridge-to-record distance. This remarkable Shure innovation eases the stylus over warps without affecting the tracking force on warped or unwarped portions of the record. And the tone arm-cartridge resonance is attenuated to a sub-audible level. As a further bonus, the Dynamic Stabilizer cushions the stylus from accidental impacts.

Get the straight talk today at your dealer's showroom. Ask for a free demonstration of the V15 Type IV.



V15 Type IV
the viscous-damped cartridge by...



Shure Brothers Inc., 222 Hartrey Ave., Evanston, IL 60204, In Canada: A. C. Simmonds & Sons Limited
 Manufacturers of high fidelity components, microphones, sound systems and related circuitry.

CIRCLE NO. 40 ON READER SERVICE CARD

Unique New SONIC TONIC™

Vibration Damping Compound from Audio-Technica



Liquid touch-up for the golden ear!

Sonic Tonic is a viscous damping material created to control and subdue small resonances in your system. It stops the tiny vibrations which may spoil an otherwise clean-sounding signal.

For instance, at low recorded levels your phono may sound fine. But at high levels perhaps an unsupported tone arm lead vibrates ever so slightly, adding a "sonic haze" to everything you hear.

Simply add a thin coating of Sonic Tonic. It goes on white, and dries in minutes to a clear yet always resilient coating. Sonic Tonic adds almost no mass, but—because it never fully hardens—it soaks up small vibrations like a sponge soaks up water.

Sonic Tonic can be applied almost anywhere to metal and most plastic surfaces. Use it on speaker voice coil wires, cartridge leads, tone arm shells and fingerlifts, turntable springs or wherever subtle control is needed. Sonic Tonic withstands normal handling, yet peels off readily if you change your mind.

If you're seeking perfection, Sonic Tonic is a helpful new finishing touch. Just \$6.95 for a bottle of AT617 Sonic Tonic, complete with applicator cap. At your Audio-Technica dealer's today.



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CIRCLE NO. 5 ON READER SERVICE CARD

New Products

latest audio equipment and accessories



Ortofon's "Concorde"
Cartridge/Head-shell
Combination

□ Ortofon has introduced two new phono cartridges, the Concorde 20 and 30, both integrated into head-shell assemblies having standard four-pin bayonet connectors and therefore suitable for use in most Japanese and European turntables. The head-shell assembly used weighs only 6.5 grams, permitting an unusually low total arm mass and a consequent reduction in warp-related tracking and signal-overload problems. Owing to the low mass of these units, some tone arms with heavy counterweights cannot be properly balanced when used with them, and Ortofon therefore supplies a special low-mass counterweight, designed to fit most turntables, as a substitute. Also supplied with the Concorde cartridges are a tracking-force gauge, an alignment jig to assure proper tracking geometry, and a small tool to permit adjustment of the cartridge's lateral position.

Both the Concorde 20 and 30 use the variable-reluctance principle for transduction of the recorded signal. The Model 20 has a frequency response extending from 20 to 20,000 Hz, a vertical compliance of 22×10^{-6} dynes per centimeter, a tracking-force range of 1.5 to 2.1 grams, and an effective tip mass of 0.4 milligram. It uses a stylus of "fine-line" contour mounted in a sapphire shank which is in turn bonded to an aluminum cantilever. The Model 30 has a frequency response from 20 to 25,000 Hz, a vertical compliance of 28×10^{-6} dynes per centimeter, a tracking-force range of 1.2 to 1.8 grams, and an effective tip mass of 0.35 milligram. Its stylus is a nude-mounted fine-line diamond bonded to an aluminum cantilever. Recommended loading conditions for both cartridges are 47,000 ohms resistance and 400 picofarads capacitance. The Concorde 30 is also available in a version that permits it to be mounted by conventional means to head shells having standard half-inch mounting centers. In this configuration it is called the LM 30 or the LM 30H (the latter has a higher compliance of 40×10^{-6} dynes per centimeter) and has a weight of 2.7 grams. Prices: Concorde 20, \$125; Concorde 30, \$165; LM 30 and LM 30H, \$150.

Circle 129 on reader service card



Marantz Receiver Has
Three Tone Controls,
LED Power Indicator

□ The Marantz SR-4000 AM/FM stereo receiver has a power output of 50 watts per channel, both channels driven into 8 ohms (power into 4 ohms is 63 watts per channel). The receiver has a number of unusual control features, among them a dual-LED array to read power output, Marantz's proprietary "Gyro-touch" tuning, which uses a knurled flywheel edge-on to the user in lieu of a conventional tuning knob, and a midrange tone control in addition to conventional bass and treble tone controls.

Total harmonic distortion of the SR-4000 is rated at 0.025 per cent into 8-ohm loads and 0.05 per cent into 4 ohms. Intermodulation distortion is 0.25 per cent or less into 8 ohms and 0.05 per cent into 4 ohms. The phono-preamplifier section of the receiver has an A-weighted signal-to-noise ratio of 88 dB and an RIAA equalization accuracy within ± 0.3 dB of ideal, and it will accept signals of up to 130 millivolts without overload. Usable FM sensitivity is 1.8 microvolts (10.3 dBf), sensitivity in stereo is 38 microvolts (36.8 dBf) for 50-dB quieting, and harmonic distortion in stereo is 0.35 per cent or less at 6,000 Hz. Capture ratio is 1 dB, and alternate-channel selectivity is 65 dB. Marantz notes that the demodulator section of the SR-4000's FM tuner uses a phase-locked-loop circuit format; the power-amplifier output section is fully complementary. The front-panel features include dual tuning meters in addition to the power-output LED arrays, two tape-monitor switches, a tape-copy switch, and an infrasonic filter (6 dB per octave below 20 Hz). Dimensions are approximately 18 $\frac{1}{2}$ x 5 $\frac{1}{2}$ x 13 $\frac{1}{2}$ inches and weight is 21 pounds; the receiver comes with a walnut-grain vinyl-covered cabinet. Price: \$400.

Circle 130 on reader service card

NOTICE: All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturer.

Recent fluctuations in the value of the dollar will have an effect on the price of merchandise imported into this country. Please be aware that the prices quoted in this issue may be subject to change.



THE SPARKOMATIC SOUND. CAR SPEAKERS FOR THE TRAVELIN' MAN WITH A PASSION FOR HIGH PERFORMANCE MACHINES.

You're a travelin' man with unforgiving performance standards. Whether it's at 40,000 feet or 55 miles per hour, you expect the equipment you pilot to be precision engineered. Even the car high fidelity speakers transmitting sound to your ears have to earn that privilege.

Sparkomatic's rear deck-mount SK 525 High Fidelity Speakers are a breed of sound breakthrough. With extraordinarily faithful reproduction qualities and dynamic range capabilities. Each has a highly efficient high performance three-speaker system for smooth transition and clean separation. Designed to deliver spacious sound, especially where space is limited.

Audible distortion doesn't even register at 50 watt power peaks.

And solid aluminum housings cut out vibration that might otherwise create interference with the accurate sound waves produced.

If instrumentation enters your calculations, check the high frequency tone intensifier control. It gives you total command of the tone pattern. And lets you make adjustments according to the acoustical conditions inside your car.

Get to know how far you can go with the Sparkomatic Sound. Sparkomatic dealers stand ready to demonstrate a full range of high performance Car Speakers and Car Stereos.

SPARKOMATIC[®]
For the Travelin' Man[™]

For our free catalogs on Car High Fidelity Speakers and Car Stereo write: "For The Travelin' Man", Dept. SR, Sparkomatic Corporation, Milford, PA 18337

CIRCLE NO. 47 ON READER SERVICE CARD

84 reasons to get to a Pioneer dealer

A lot of people pick out a car stereo with their eyes closed. Because, for them, what they hear is all that counts.

rest, we've gathered 83 more reasons (besides great sound) why you should be down at a Pioneer dealer now, instead of reading this ad.



KE-5000. A digital electronic tuner/cassette deck.

Which is all right with us. Because when sound decides, Pioneer wins every time. Maybe that's why we're number one in car stereo.

A lot of other people, though, come into the market with both eyes open. Fine with us, too. Because what you see will win you over.

So in the interest of a totally unfair comparison between us and the



Paraphernalia. Pioneer T-shirts and visors. Wear the colors.

Reason #2. The KE-5000. Does everything but drive your car. A totally electronic AM/FM Supertuner® car stereo with cassette deck. Has a digital station display. Digital electronic tuning. It automatically seeks out and locks on to a station. Even has a digital clock. So you won't be late for work.



TS-A9 surface mounted 2-way speaker.
TS-M2 tweeter.
TS-168 flush mounted 2-way speaker.

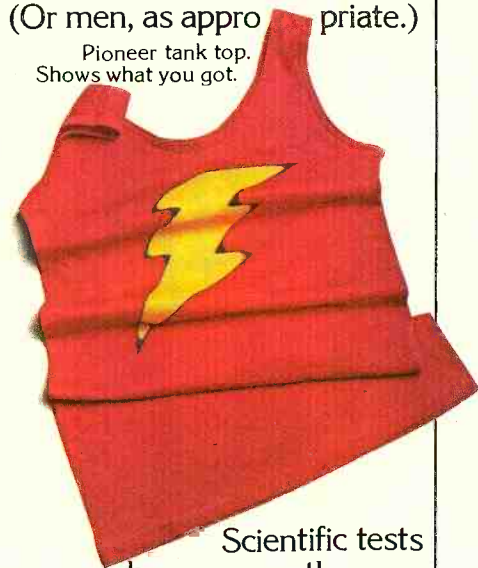
3 through 35. An ear-dazzling array of speakers. Built with extraordinary attention to design and materials. 32 different deck-mounts, surface-mounts, door-mounts, dual-cones, two-ways,

three-ways and tweeters.

36. Supertuner FM circuitry. The inspired bit of electronic engineering that makes our FM signals come in so crisp and clear.

37. Success with women. (Or men, as appropriate.)

Pioneer tank top. Shows what you got.



Scientific tests have proven the awesome amorous effects of a Pioneer Supersystem. Please do not take unfair advantage of this feature.



Steve Tillack displays himself and his collected works.

t your ears down ler.

38 through 59. Integrated supersystems. We offer 21 different systems with built-in amplifiers. In-dash or under-dash. AM/FM & Cassette. AM/FM & 8-Track. AM/FM only. FM/Cassette combo. Or 8-Track or Cassette alone. Now that's freedom of choice.

60. Autosound fashions.* Owning a Pioneer Car Stereo requires a suitable wardrobe. Check out our T-shirt and tank-top collection. Featuring Pioneer I.D. on the flip side, so people will know where your sound is coming from.



Your walls can have ears. This poster now in fifth printing.

61. The highway library.* There's an impressive body of literature to go with Pioneer Car Stereo. Our renowned resident auto stereo authority, Steve Tillack, has authored four best-sellers on the subject.

62. Dolby.** Found in several of our models, Dolby eliminates tape hiss.



Get in touch with a whole other dimension in sound.

63. Bodysonic. Car stereo you can feel in your bones. The first major breakthrough in autosound since stereo itself. Test feel it.

64. Audio decor.* There's a whole collection of Pioneer-aphernalia. Including our much-beloved Eargasm poster, a celebration of aural ecstasy.

65. Have a fit. With the world's broadest line of quality car stereo, Pioneer fits in perfectly whether you drive a Rolls or a VW.



66 through 84. Pioneer component car stereo. Build a car stereo that puts most home systems to shame. 18 different separates—tuners, cassette decks, and seven-band graphic equalizer. Plus amplifiers powerful enough to drive the hottest string of speakers.



GM-120 component amplifier. 30 watts per channel KPX-9C00. A component tuner/cassette with pre-amp. CD-7 component 7-band graphic equalizer

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The best sound going.



We build a speaker that sounds like music

It can accurately reproduce the 120+ dB peaks that are found in some live music. That's more than just being able to play music loud. It can accurately reproduce the music bandwidth—from below 25Hz to 20kHz. And the Interface:D's vented midrange speaker reproduces midrange sounds with the clarity and purity that allows precise localization of sound sources—both lateral and front-to-back.

The Interface:D is the only commercially available speaker we know of that can meet these criteria. Audition them at your Interface dealer.



Electro-Voice®

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600 Cecil Street
Buchanan, Michigan 49107

Interface:D™

Audio Q. and A.

By Larry Klein

Technical Director Klein installing the tweeter of a three-way Jensen system in the right door of his Saab EMS.



Synthesized Car Quad

Q. I understand that there once was an article in *Car and Driver* magazine that told how to set up four-channel sound in a car that had a stereo FM radio. Do you know anything about it?

H. A. STANLEY
Chicago, Ill.

A. Yes, I do, since I was the one who suggested the hookup to C/D after having used it in my car for several years. It had occurred to me that my stereo cassette/FM radio could provide a synthesized rear channel using the stereo "difference" signal if I simply ran a pair of wires connected across the two "hot" leads from the front stereo speakers to a separate speaker (or two) installed in the rear deck. The sonic enhancement provided by the rear speaker was consistently more impressive than one normally hears with such a difference-signal setup in a home system. This shouldn't be surprising since even normal two-channel stereo is frequently more effective in a car than at home.

Although it was not mentioned in the C/D article, the hookup is actually based on the Hafler arrangement discussed in Ralph Hodges' December 1978 "Audio Basics" column, and the same connection arrangement will also serve for home use.

The enhancement achieved by the hookup will be obtained, of course, with both stereo broadcasts and tapes. "Live" (rather than studio) rock recordings are particularly impressive since much of the recorded audience

reaction seems to come only from the rear speaker. And with large symphonic works, the hall reverberation is usually reproduced in a surprisingly satisfying way.

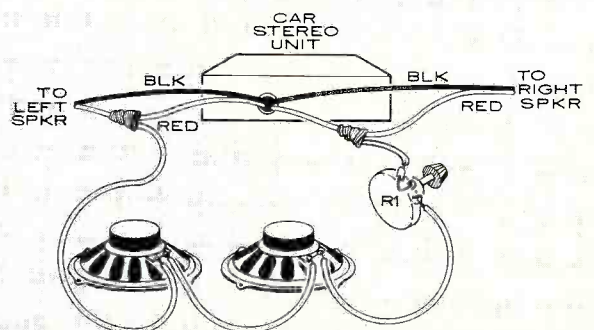
The necessary connections are shown in the accompanying diagram. Make sure to use only the two hot leads from the radio/tape player, and avoid grounding either of the leads going to the rear speaker. Do not use 4-ohm speakers or those which have one terminal grounded to the frame. Also make sure that the two channels of your car's stereo amplifier use a common internal ground. (If you hear severe distortion when first trying out the rear-speaker hookup, disconnect it fast, since your amplifier's speaker feed may not be using a common-ground system. In such a case it could be damaged by a speaker connected across the two "hot" leads.) However, the hookup as shown is suitable for the majority of car systems.

The system sounds best if the rear speaker plays at the proper volume relative to the front units. You can help ensure this by using efficient heavy-magnet units for the rear. If the sound from the rear is too loud, you can install a 25- or 50-ohm wirewound control (R1) as shown to serve as a volume control. In my setup it wasn't necessary.

Power and Sensitivity

Q. Although I consider myself a fairly knowledgeable hi-fi buff, I'm confused by all the claims and counterclaims made for
(Continued on page 34)

One or two speakers can be used for the rear. When two are used, 4-ohm types may be okay. Control R1 can be located near the rear speakers or at the car's stereo unit. Biamped systems should have the extra speakers connected across the woofers (assuming a common-ground circuit in the bass amplifier).



"Surely, I know of no machine in this price class that rivals the hk3500."

Modern Recording Lab Report—Norm Eisenberg and Len Feldman—June 1979

That's what the noted reviewer, Norman Eisenberg, said about the hk3500 Dolby® Cassette Recorder. He also stated, "This model seems to embody a cumulative know-how in terms of audio technology and product design that would be something to take notice of in any event, and is almost unbelievable in view of the price the unit is tagged with." His colleague, Len Feldman, said, "I was, frankly, amazed at the number of control features which Harman-Kardon has managed to incorporate in its new model hk3500, a unit which retails for well under \$600."

The underlining is ours.

But the value is all yours.

Here is a rugged and reliable machine that has wowed the pros with its lack of wow and flutter, with its musical accuracy, with its solid features, and its reasonable price.

Once again, to quote the illustrious Mr. Feldman, "Tapes recorded on this machine *sound good*."

The italics are his.

The hk3500 should be yours!

For complete technical information and a copy of the June, 1979 Modern Recording Lab Report, write to Donald Brandt at Harman-Kardon, 55 Ames Court, Plainview, New York 11803.



harman/kardon
Hear all the music.

55 Ames Court
Plainview NY 11803

Pictured: The new hk3500 Dolby® cassette deck. Not shown: Models hk1500 and hk2500.

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"A Technological Masterpiece..."



McIntosh C 32

"More Than a Preamplifier"

McIntosh has received peerless acclaim from prominent product testing laboratories and outstanding international recognition! You can learn why the "more than a preamplifier" C 32 has been selected for these unique honors.

Send us your name and address and we'll send you the complete product reviews and data on all McIntosh products, copies of the international awards, and a North American FM directory. You will understand why McIntosh product research and development always has the appearance and technological look to the future.

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CIRCLE NO. 25 ON READER SERVICE CARD

Audio Q. and A. . . .

car-stereo equipment. I'm particularly concerned about two areas: power output and FM sensitivity. Can one really judge these factors in car equipment in the same way one would for home hi-fi equipment?

SEYMOUR COHEN
Brooklyn, N.Y.

A. No, for several different reasons. In regard to power output, in a car you listen in a fairly small closed environment in which sound pressures are established fairly easily (an analogy can be made to headphone listening—if you don't carry it too far). Given the reasonably efficient drivers sold for car use, super-power amplifiers aren't really needed. But, on the other hand, since car-stereo equipment does not at the moment fall under the jurisdiction of the Federal Trade Commission's "truth in power-output" advertising rule, many, if not most, manufacturers rate their equipment somewhat optimistically. Some advertised power ratings of, say, 40 or 50 watts, when properly deflated, could well turn out to be close to 10 watts per channel at 3 per cent distortion. This means that an amplifier that on paper seems overpowered for your needs may in truth (meaning "in car") work out just right.

A friend's experiences with his home-built car power amplifier may be instructive in this connection. He designed a real 50-watt-per-channel car power amplifier with legitimate hi-fi specs in regard to frequency response, distortion levels, etc. The amplifier, along with a suitable tuner/cassette player, drives a pair of Jensen 6 x 9-inch, 20-oz.-magnet coaxials installed in the rear deck of a full-size car. He has found that some of his cassettes (dubbed from direct-to-disc recordings) were capable of producing a measured 110 dB on peaks without clipping distortion, although occasional heavy-bass disco passages played at that (literally!) deafening level did overdrive the amplifier into clipping. (I find it interesting that it was the amplifier rather than the speakers that overloaded.) In the light of all this, I suspect that 20 watts or so per channel should play as loud as most people could want, as long as the 20 watts are actually produced by the amplifier and are not merely a wish-fulfillment fantasy of the amplifier's manufacturer.

In respect to FM reception, the main problem as I see (hear) it is not sensitivity or even conventional signal-vs.-noise problems, but rather a special one that plagues FM reception in moving vehicles: the "picket-fencing" or "fluttering" of the audio signal heard when driving through—or even near—metropolitan areas. (If you have an FM receiver in your car you already know what I'm referring to; if you don't, then the noise can be described as similar to that heard from a record with three or four radial stripes rough-sandpapered into its surface.)

The FM-flutter problem—its exact electrical causes and cures—has remained a mystery to me if only because of the contradictory advice I get from the various experts in the field. I've been told that in order to minimize FM flutter what is needed is improvement in a set's (1) capture ratio, (2) adjacent-channel selectivity, (3) limiting, (4) automatic frequency control, and/or (5) automatic gain-control

circuits. Be that as it may, a five-year-old U.S.-built stereo FM radio I once owned was far superior in flutter rejection to two of last year's top-of-the-line Japanese-built car-stereo cassette units, both with excellent FM specs. I am at a loss therefore to advise any prospective FM car-radio purchaser who will be driving much of the time on streets bordered by tall buildings. However, be sure to make your concern clear to the dealer, and he may be willing to provide an on-the-road test of the car unit you're interested in.

Incidentally, some of the so-called "combo" whip antennas are not particularly good for FM reception, and with a normal collapsible car antenna the best FM midband reception will usually be obtained with the length adjusted to about 30 inches. But there's no reason—if you listen mostly to one particular station—that you shouldn't tune your antenna by trial-and-error adjustment of its length.

For more information about car-stereo specifications, see page 79 of Ivan Berger's "Autosound" in this issue.

Cassette vs. Eight-track

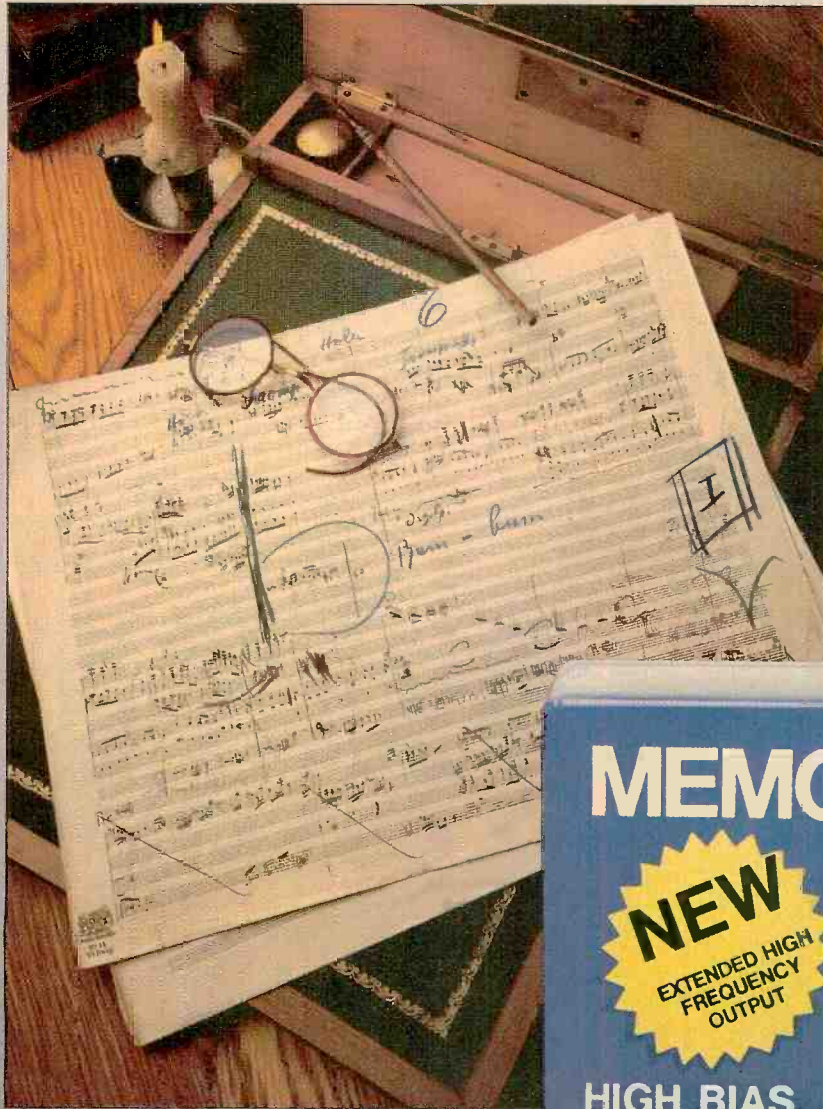
Q. My problem is simple: I have to make a choice between an eight-track or a cassette player for my car. Do you prefer one over the other? Why?

JOSEPH ROGATI
Chicago, Ill.

A. As of five or ten years ago, the eight-track format had the autosound market pretty much to itself. But time and technology is fulfilling my early prophecy that the cassette will ultimately take over for automotive use. One need only consider the relative sizes of the two formats (a cassette is about a quarter the size of an eight-track cartridge) to determine that my prediction wasn't based on some esoteric insight into the soul of the audio consumer. Theoretically, the eight-track cartridge can provide better performance (in respect to wow, flutter, frequency response, and distortion) simply because it operates at twice the speed of a cassette. However, the theoretical advantage provided by 3¾-ips operation has not been realized in practice because the equipment manufacturers and tape duplicators have observed that eight-track is the province of the low-end mid-fi merchandisers and therefore any effort to upgrade their recorded products would not be appreciated by their particular consumers.

Even a casual survey will reveal that home eight-track recorders are becoming rare while cassette decks are proliferating. That means that the software to feed the eight-track car player will have to be bought rather than recorded at home, as is usually done with cassettes. In regard to the marketplace, eight-track has already lost its initial lead and is continuing to lose ground. However, given the investment of both manufacturers and consumers in eight-track hardware and software, the format is not about to fade suddenly away—it will probably be around for another five to ten years. But I cannot now in good conscience advise anyone to invest in eight-track car equipment unless they already own a large inventory of cartridges and a home deck to play (and possibly make) them on.

WHICH NEW HIGH BIAS TAPE WINS WITH MAHLER'S FOURTH SYMPHONY?



Original manuscript sketch for the first movement of Gustav Mahler's Fourth Symphony. Courtesy of The Newberry Library, Chicago

Choose eight measures of Mahler's Fourth that are really rich in the high frequencies. The type of passage that high bias tapes are designed for.

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CIRCLE NO. 27 ON READER SERVICE CARD



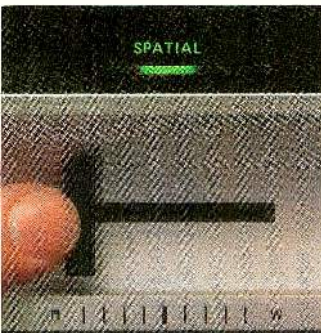
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The Importance of Spatial Properties of Sound

Imagine you are at a live performance. The music which reaches your ears comes not only directly from each instrument, but from every surface which reflects the sound. This combination of reflected and direct sound creates the spatial image of sound; it provides the ambience that makes music sound lifelike.

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When you are listening to orchestral music, move the spatial slide control to the wide position. Special circuitry directs middle and high frequencies to the rear outside drivers and the front drivers of the Bose 901® Series III or IV loudspeakers. This creates a broad, dispersed pattern of reflections. You experience the breadth and spaciousness of a symphony orchestra.



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Built-in Bose 901 Equalizer

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The third speaker connection terminal on each Bose 901 Series III or IV loudspeaker makes it possible to control different sets of drivers independently. It is the key to varying the spatial properties of sound.

The Spatial Control™ Receiver is a complex combination of a stereo preamplifier and equalizer, switching circuits, compensation circuits, and four main power amplifiers. Bose-developed logic circuitry, using CMOS components, controls the complex interconnections among these elements, for ease of operation and great versatility.

Simply program the receiver for your speakers by setting the switches on the rear panel; the rest happens automatically as you operate front panel switches. Programmability gives you several options. For example, the spatial slide controls can also be used as a balance control between two sets of speakers, one equalized and the other unequalized.

Six Power Amplifiers Offer Extraordinary Versatility

Four Direct-Coupled Fully Complementary power amplifiers drive the different arrays of 901 drivers when the receiver is in the spatial mode. Two fully independent power amplifiers drive the headphones with an unequalized signal, regardless of the speakers in use. Each amplifier is individually accessible; you can, for example, enhance the realism of your system with a time delay accessory, without adding a separate amplifier.

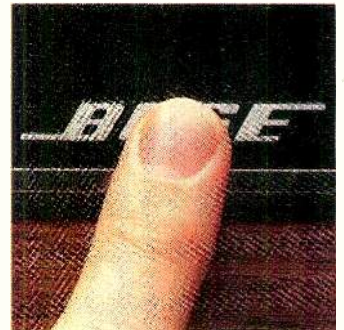
Source and Room Compensation Controls Give More Accurate Overall Frequency Response

Bose has made precise measurements of the acoustic properties of different rooms and recording techniques and found that conventional tone controls are simply inadequate to compensate for the problems that occur in typical listening environments. The unique Source and Room Compensation Controls found on the Spatial Control Receiver approach the effectiveness of a more complicated graphic or parametric equalizer but are as easy to use as standard tone controls.

The Source and Room Compensation Controls embody the basic characteristics of the 901 Series IV equalizer controls and extend their range of control to lower frequencies. In acoustically "dead" rooms, they help restore brilliance and clarity to the high frequencies. They can also largely eliminate boominess in poorly mixed records without affecting bass fundamentals and they can restore much of the fullness lost when room surfaces absorb excessive sound energy.

The Result: Unparalleled Performance and Versatility

The Bose Spatial Control™ Receiver offers discriminating listeners an unequalled system for the realistic reproduction of sound. No other receiver lets you control the spatial aspects of recorded music. No other receiver has been designed to take full advantage of the unique sound-producing characteristics of the world-renowned Bose 901 loudspeaker system. And no other receiver gives you such extensive control over the acoustic variables found in widely different room environments and recordings. No other receiver offers the total listening experience of the Bose Spatial Control™ Receiver.

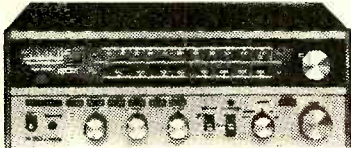


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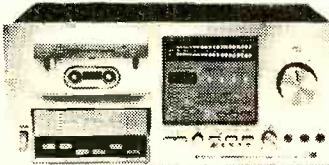
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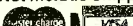
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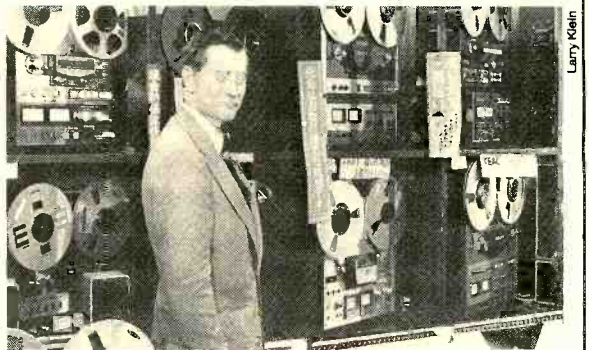
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CIRCLE NO. 3 ON READER SERVICE CARD

Tape Talk

By Craig
Stark



Larry Klein

Left-channel Dropout

Q. Occasionally when I play a tape on my open-reel deck, the left channel momentarily disappears, as if there were a faulty or intermittent connector. I've checked the connectors, however, and they are okay. Sometimes if I rewind the tape a little and replay it, the dropouts disappear. Can you explain this and tell me what I can do about it?

JOHN H. TULL
Rapid City, S.D.

A. In the quarter-track open-reel format the left channel is recorded along the edge of the tape, so it is more vulnerable than the right one to the kind of intermittent loss of contact between tape and head that you describe. Any irregularity in the slitting of the tape or any subsequent edge damage that may have occurred will cause just these symptoms. Even on the big 2-inch tapes used for multitrack recording on professional transports, where the track width is twice as great, no one wants to use the "edge track" if it can be avoided.

Since you seem to have only a mild case of left-channel dropout, however, two other possibilities suggest themselves. First, it might be that the holdback tension on your deck is set slightly too low. You can make a quick check of this by simply applying a little more tension on the supply reel with your finger; if this clears up the difficulty, a technician can adjust the tension inside the machine. The other possibility is that your playback head is slightly misaligned so that it slants backward, exerting less pressure on the top left edge of the tape. You can check this easily enough with a Magic Marker (it must be of the alcohol-, not water-soluble type or it won't stick) and a reel of junk tape you don't mind throwing away. Simply "paint" the head face lightly and evenly with the marker, let it dry a moment or so, and play the tape. After a few seconds the dye will be worn off where the tape-to-head pressure is the greatest, and by inspecting the wear pattern you can see whether the pressure is even. Ideally, you should get a neat, rectangular wear pattern across the whole tape path. If you get a trapezoidal-shaped pattern, narrower at the top (where your left channel is), the head's "zenith" alignment (top-to-bottom tilt) needs adjusting.

After running such a test, be sure to clean not only the head, but also the capstan, guides, and rubber pressure roller with cotton swabs dipped in alcohol. And mark or throw away the reel of junk tape so you won't use it for other purposes.

Tropical Troubles

Q. I anticipate moving to a tropical environment shortly, and I will be taking my stereo system and cassette and disc collections with me. Are they likely to be harmed by the high humidity? Are there any precautions I should take?

CHUCK ENGLS
Oklahoma City, Okla.

A. Unlike the older, acetate-base tapes once used in open-reel recording, the tensilized polyester found in today's cassettes expands very little in response to increased humidity. If your cassettes are in a "played" (rather than a tightly rewound) condition when you take them to the tropics, and if after some days there you play them through to relieve any slight tensions, I don't foresee any problems. Before laying in a supply of blank cassettes, you might write to some of the tape manufacturers and enquire whether they use any antifungus agents in their binder, for this is at least a possible future problem.

As to your other equipment, I have no experience to go on, but I would be glad to pass along any suggestions from readers who have.

Flip-side Foibles

Q. I've noticed that a number of my prerecorded cassettes have better high-frequency response on side 1 than on side 2, while with others the opposite is the case. Is it a matter of carelessness by the duplicator, or what?

BONNIE TERRANCE
Baltimore, Md.

A. Since all the tracks on prerecorded tapes are recorded by the duplicator on a single pass of the tape (side 2 is simply recorded backward), it's not that he's using two machines with different characteristics. If you're
(Continued on page 41)

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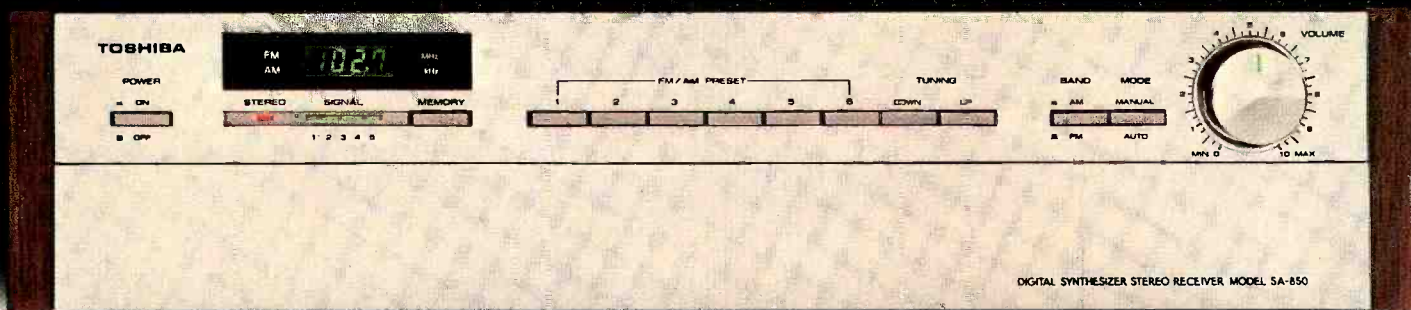
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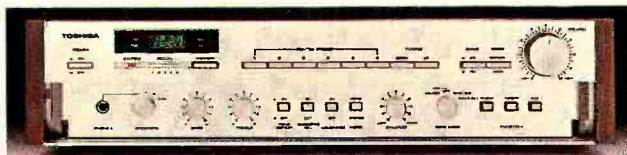
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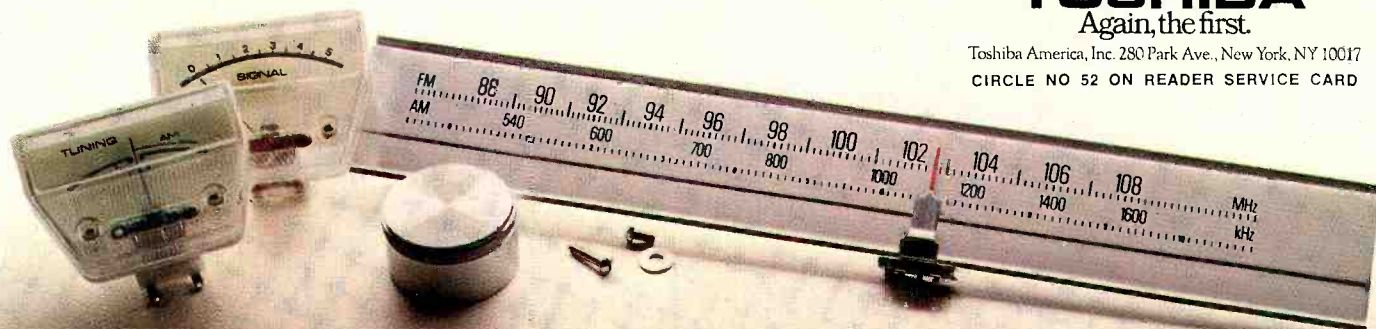
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CIRCLE NO 52 ON READER SERVICE CARD



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distressed by a side 1/side 2 treble discrepancy, imagine the chagrin of an equipment reviewer like me when he finds that his prized calibrated, full-track test tape gives widely different readings at the highest frequencies played on the same deck, depending on which "side" he plays!

The explanation seems to involve primarily two factors. In the first place, plastic cassette shells are by no means perfectly molded, and since part of their job is to guide the tape across the heads, it is by no means surprising that the tape edge is more nearly perpendicular to the head gap when played in one direction than when it is played in the reverse direction. That degree of perpendicularity ("azimuth") has quite a profound effect on high-frequency performance.

The other factor is a bit more subtle and affects open-reel tapes no less than cassettes. Our British cousins, who seem to have made more of a study of it than we have to date, have nicknamed it the "velour effect" and proposed its inclusion in an international measurement standard. It does seem to be the case that, at least to a minor degree, all tapes have a "preferred" direction of travel, so that when you play them in the opposite direction you're running them "against the nap," as it were. With top-quality tapes the effect is very minor—less than 1 dB at 15,000 Hz, for example—but I certainly have observed it. My best guess—and I admit that it's only speculation—is that this happens because, during manufacture, while the oxide coating is still wet, the particles are magnetically aligned in the direction of tape flow by the imposition of a powerful field while the tape is moving consistently in *one* direction. Other explanations are equally possible, however, though the *fact* of a "velour effect" is easily proved. In comparison with the shell-induced treble problems of cassettes, it is a minor problem at best (or worst), and when you hit the more obvious side 1/side 2 differences, the best I can suggest is that you make judicious use of your treble control.

Prerecorded-cassette Switch Settings

Q. My cassette machine has four tape settings (CrO₂, FeCr, etc.) to select optimum bias for playing a tape. But how am I supposed to know which setting to use when the companies producing prerecorded cassettes (RCA, Columbia, London, Angel/Capitol, and all the rest) do not indicate which kind of tape they are using?

BOB FREEMAN
Aspen, Colo.

A. First, let's clear up a source of confusion that recurs in many reader inquiries. Some tape decks have switches to select bias and other switches to select equalization. Others use a single "bias/equalization" switch to change the machines' internal adjustments simultaneously to match the needs of different cassette tape types. In *neither* case, however, is "bias" used in *playback*—neither for tapes you record yourself nor for those you buy commercially prerecorded.

Bias is not required in playback; it is part of the *recording* function. Equalization, however, does need to be switched in playback to suit the characteristics of different tapes. For playback there are only two internationally standardized equalization characteristics: 120-microsecond equalization (used with normal ferric-oxide tapes) and 70-microsecond equalization (used with chromium-dioxide—or equivalent—tapes).

Almost all commercially prerecorded cassettes use the standard 120-microsecond ("ferric") playback equalization. Only special "demonstration-quality" recorded cassettes, such as those from Nakamichi, Advent, and In Sync (Connoisseur Society), use the 70-microsecond playback equalization, and in such cases it will be clearly marked on the box or cassette. So, if in doubt, always set your deck for playback of prerecorded tapes to its regular ferric-oxide switch position.

One or Two Capstans?

Q. I'm thinking about buying a rather high-price cassette deck, but the salesman has pointed out that it uses only a single capstan and said that dual-capstan drive was better. Is he right, or is he putting me on?

BARRY SCHWEITZER
Boston, Mass.

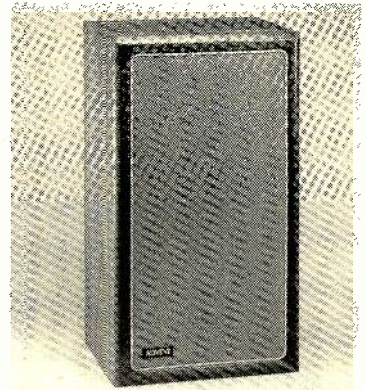
A. This question is similar to one that used to arise years ago about open-reel decks: is a three-motor drive system "better" than a one-motor drive? The answer now (as then) is the same: just as there are some theoretical advantages to three-motor open-reel drive, so there are some theoretical advantages to "closed-loop" dual-capstan cassette drive, *but* differences in engineering and quality-control standards for any given machine may make the supposedly "inferior" system significantly outperform the "better" one.

In a single-capstan drive system for a typical cassette deck, the capstan and rubber pinch-roller are located adjacent to the take-up side of the cassette. In this position they tend to isolate the tape (as it moves across the crucial head area) from any wow-and-flutter-causing irregularities in the *take-up* drive. However, if there are any irregularities in the *supply-side* holdback tension (caused, for example, by an unevenly wound tape), a single-capstan drive must rely on the cassette's pressure pad to smooth them out. A dual-capstan, closed-loop drive system theoretically isolates the tape from aberrations on both the supply and take-up sides.

On the other hand, if the rotational rates of both capstans in a dual-drive system are identical (as is the case in *almost* all instances), the irregularities in the capstan/pinch-roller assemblies themselves—which may be slight, but are certainly real—will occur at the same rate and reinforce each other. In poorly built dual-capstan systems this may introduce as much (or more) wow and flutter as is present in a well-designed single-capstan system. In such a case, the "cure" for supply-reel irregularities may be worse than the disease.

At least one manufacturer of top-quality dual-capstan-drive cassette decks has addressed this problem by varying the capstan diameters, the weights of the capstan flywheels, etc., and more may be expected to follow suit so as to better realize the advantages closed-loop operation can provide.

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Audio Basics

By Ralph Hodges



IS THERE HOPE FOR FM?

The final three call letters of station WGBH in Cambridge, Massachusetts, stand for Great Blue Hill, which is the site of the station's transmitter and broadcast antenna. From this vantage point fine coverage of the greater Boston area is achieved—something for which the local audiophiles are quite vocally grateful, because from Great Blue Hill emanate some of the technically finest stereo FM broadcasts in the world.

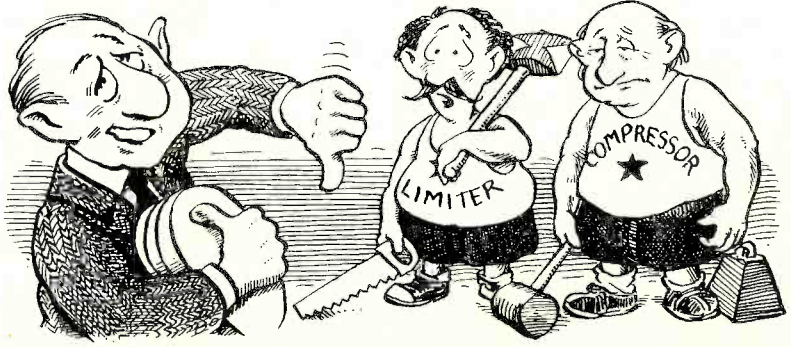
Back in the early 1970's, C. Victor Campos, a veteran of the product-managing staffs of both KLH and AR and now an audio specialist for the Consumer Electronics Group of the EIA, approached the station with a proposition. He had access to superb second-generation master tapes from recording sessions with some of the most celebrated of today's performing groups. (The sources of these tapes were and have remained obscure. For this and other reasons, many people have at one time or other suspected Campos of having made a pact with some unknown recording devil.) In many cases the tapes were encoded by the professional Dolby A process used by recording studios, so that their signal-to-noise ratios would be almost microphone fresh when they were properly decoded. Campos proposed to play these treasures over the air in a regular series of programs—provided the station broadcast them *his* way.

WGBH is an up-to-date facility, and hence has in its signal path a number of those processors—such as "compressors" and "limiters"—that are considered indispensable by commercial broadcasting entrepreneurs and execrable by the community of

audiophiles. A compressor's basic function in broadcasting is to make soft sounds louder, and although this has the effect of making the whole transmission seem louder (and hence presumably more attractive to someone searching up and down the dial for entertainment), it doesn't make the actual *loudest* parts of it any more so. In fact, they may be rendered somewhat *less* loud by the use of a limiter, the job of which is to see that the station doesn't illegally overmodulate its broadcast signal by accident. The limiter sits passively in the signal path until what seems to be an excessively loud signal comes along, which it then chops down to legal size.

Even when used sensibly and subtly, these devices tend to have audible side effects that tell the listener that manipulation of the music's dynamic range is taking place, and hence they are anathema to Campos and like-minded audio buffs. They must go, he insisted to WGBH, and, miraculously, they did. An intricate patching system was devised by which these major offenders, as well as many superfluous and hence potentially harmful minor circuits in the studio console, were bypassed. The next step was to persuade the station to acquire two excellent (and commensurately expensive) professional tape machines to ensure the best possible reproduction of the tapes. Finally, a Dolby-A "loop" was established between the station's studios and the transmitter site on Great Blue Hill some miles away.

As you perhaps know, the Dolby systems (type A, professional, and type B, consumer) modify the audio signal in an encoding



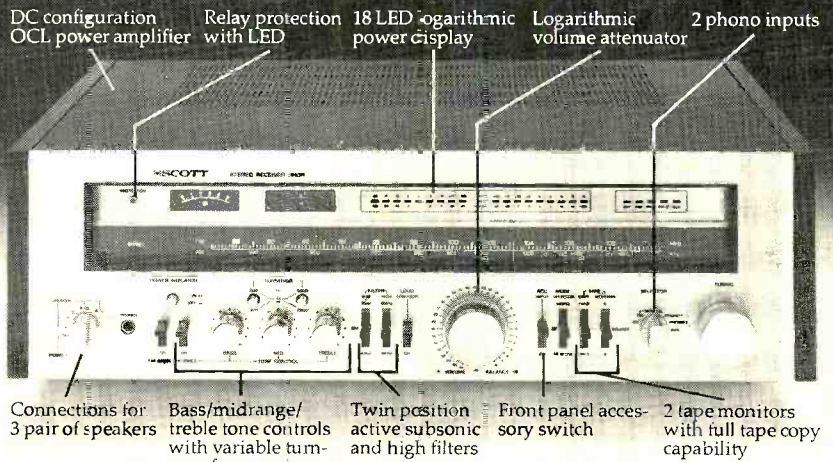
scheme that protects it somewhat from being contaminated by noise when it passes through processes or systems likely to impose noise on it. At some point before it is delivered to the listener, it must be decoded in order to sound right. The point of decoding should be as close to the final user as possible to ensure that any noise added to the signal as it passes through the system will be minimal. (We refer to a Dolby "loop" as starting at that point where the signal is first encoded and ending where the decoding takes place.)

The tape-recording process is likely to impose a great deal of noise on a signal, and encoding the signal as it goes into the recorder and decoding it in playback therefore makes excellent sense. Another source of noise is the process of radio transmission. To squelch this kind of noise, Campos sends a Dolby-A-encoded signal through the microwave link that connects the studio to the Great Blue Hill transmitter. Once it arrives there, it is kept in Dolby-encoded form until the last possible point before it is sent out "on the air." As a result, the final signal is "shielded" from noise throughout the entire broadcast chain. And if the original tape happens to be Dolby encoded, the signal will have been so shielded all the way from the recording studio on.

It is hardly surprising that Victor Campos' *Adventures in Sound* broadcasts have become an audiophile institution in the Boston area, and on the evenings when the program is aired (evenings that alternate with the live broadcasts of the Boston Symphony during the orchestra's season) almost everyone who has access to a good high-fidelity system sticks close to it for the show's duration. After all, the Campos broadcast chain claims a signal-to-noise ratio of 82 dB, referred to 100 per cent FM modulation—a noise figure that, to my knowledge, has never been approached in measurements on even the finest FM tuners. Encoding the broadcast signal with the Dolby B system (to be decoded in the listener's home) would probably help to decrease noise added by the receiving tuner's detection, i.f., and mixer stages, but with good tuners the improvement would be small indeed compared with what has been wrought upon the actual signal being sent out from the transmitter. And since that signal generally consists of such things as recordings by the Boston Symphony, New York Philharmonic, Metropolitan Opera, and similar esteemed music makers—recordings that are as close to the original as you can get without having been in the control room during the recording session—the loyalty of Victor Campos' radio audience is understandable.

AND, happily, their gratified applause has been heard. Among the most recent developments is an announcement by Chicago's WFMT that they have revamped their facilities, replacing conventional compressors and limiters with computer-controlled systems that will prevent overmodulation while avoiding (it is claimed) all audible side effects. In its new trim, the station claims a signal-to-noise ratio of 80 dB and total harmonic distortion (including noise) of 0.1 per cent at full modulation. On another front, there are plans afoot to eliminate the present, inadequate transmission lines that serve a major symphony orchestra in its summer home and substitute video-frequency lines that will carry the signal in digital form. FM is finally on the move back to excellence. □

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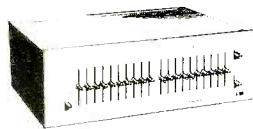
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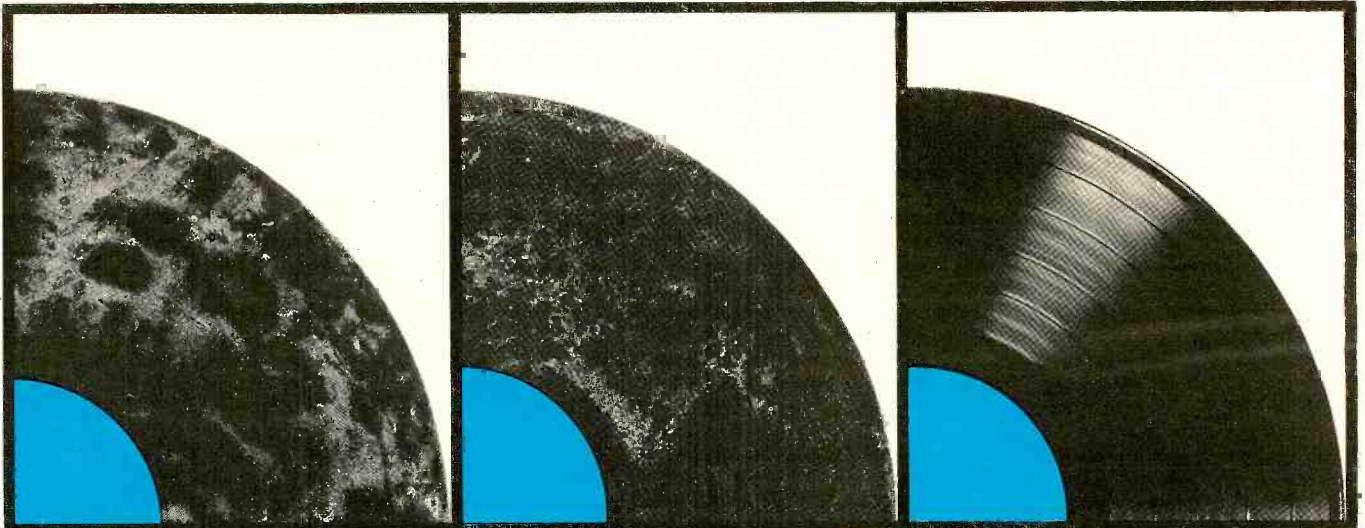


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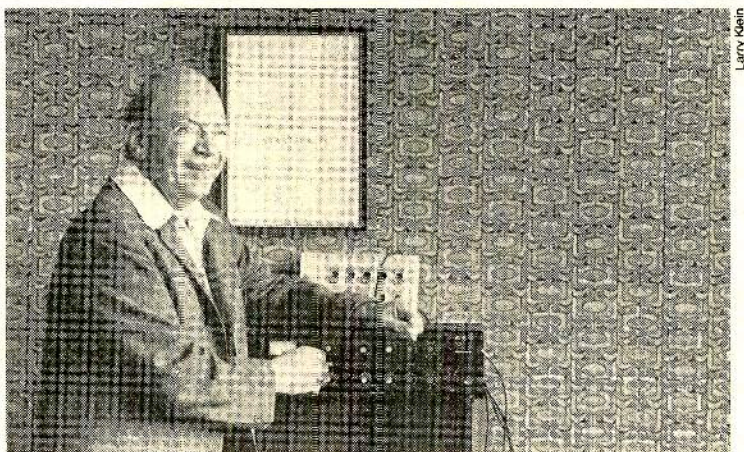
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Technical Talk

By Julian D. Hirsch

The author pleasantly surprised by the sound of the new AKG BX5 reverberation unit during a visit to the AKG factory in Vienna.



• Computerized Cartridge Measurements •

FOLLOWING my discussion of phono-cartridge measurement problems in January, a letter from Shure Brothers' vice president of engineering, James Kogen, reminded me of a definitive study of crosstalk measurement that was made almost a decade ago by Shure's chief engineer, Bernhard Jakobs, and published in the *Journal of the Audio Engineering Society* in April 1971. I reread the paper and came to the inescapable conclusion that there are unfortunately *no* absolutes in the specification and measurement of stereo crosstalk in phono cartridges!

We have been tacitly assuming that the left- and right-channel axes of a cartridge signal-generating system are at right angles to each other and at a 45-degree angle to the plane of the record, since this is the accepted standard geometry of a stereo record groove. Overlooked, both by me and possibly by some cartridge manufacturers, is the fact that the right- and left-channel axes of the cutter that makes the record do not necessarily agree with those of a specific cartridge. Only a few makes of cutter heads are used in the recording industry, and they do not necessarily have the same internal geometry. Also, the vertical angle of the cutter styli and the playback styli must be the same for optimum separation (and possibly some other parameters), yet we know that more often than not they are different.

The result, as Mr. Kogen pointed out, is that a particular cartridge will show its best separation only with a test record cut by a head that "matches" the cartridge. I suspect that most cartridge manufacturers adjust the geometry of their cartridges to that of some test record that they feel is "best" for their purposes. Thus, though a given phono cartridge may show much better separation with

an Audio-Technica test record than with a CBS record in our tests, that does not indicate that the A-T record is superior to the CBS (it may be, but the case is not proved by the better separation). Further, I'm sure that there are cartridges whose separation measures better on the CBS than on the A-T record.

This suggests to me that assigning undue importance to very large channel-separation figures in a cartridge specification is probably unwarranted. Even if the test record is specified so that the claim can be verified by an independent tester, one generally does not know which type of cutter was used to make a particular music record. Therefore, not only is the *actual* separation of any cartridge on normal records impossible to define, it does not, in fact, have much importance. All available data seem to indicate that once the separation exceeds about 15 dB, the stereo effect is complete and is not enhanced by any further increase. It is probably too much to expect that any cartridge manufacturer will downplay the importance of separation in his product specifications, but the consumer should be aware of its true significance.

ANOTHER point raised in my January column was the dependence of a frequency-response measurement on the test record used to make it. This is due in part to the same undefined geometrical differences that complicate crosstalk measurement and in part to other aberrations in the cutter and the geometry of the playback stylus. Recently I had the opportunity to visit the laboratories of two well-known European cartridge manufacturers, Bang & Olufsen and AKG Acoustics, and was interested to find that both are using *computers* to facilitate cartridge testing and to

eliminate the response aberrations of the record. Their methods differ in detail, but there are strong similarities in the end results (including impressively flat—and quite legitimate—cartridge frequency-response curves).

Actually, these computer test methods do nothing that could not have been done using older, more traditional methods, but they do it so much faster (and probably more accurately) that I cannot help but view the technique as a fundamental advance in the measurement art. For example, it has always been possible to separate the contributions of the test record from those of the cartridge by measuring the cartridge/record response at two speeds. If a peak shows up at 15,000 Hz when the record is turning at 33 $\frac{1}{3}$ rpm and occurs in the same physical area of the record (now corresponding to 7,500 Hz) when the speed is halved to 16 $\frac{2}{3}$ rpm, it is clearly a property of the record rather than of the cartridge. A specific test record can be calibrated by variable-speed methods and thereafter used to measure cartridge response with some assurance of meaningful results. This method is employed by almost all cartridge manufacturers to eliminate possible record effects in their engineering development programs. The calibration process is a fairly cumbersome one when done on a frequency-sweeping record, and I, like most independent reviewers, have chosen to use the standard phono-cartridge test records "as is."

B&O, in their plant in Struer, Denmark, demonstrated for me a unique test program they had developed for their new MMC 20 series cartridges. It was meant to be used for production-line testing, so speed was an important consideration. A special test record was developed, on each side of which were

Tested This Month

Hitachi D-5500 Cassette Deck • RTR PS/1:DAC/1 Speaker System
NAD 3020 Integrated Stereo Amplifier • Thorens TD 115C Record Player
dbx Model 1BX Dynamic Range Expander

recorded twelve identical test tracks. Each track consists of three separate test sections using signals of very short duration (unlike a human operator, a computer can read and process bursts of data lasting only milliseconds). First, a 1,000-Hz sine wave at a velocity of 3.54 centimeters per second (cm/sec) is played on the left channel, the right channel, and through both channels in phase. This gives the reference output-voltage data for each channel of the cartridge, the imbalance between them in decibels, and a check on the correctness of their phasing—all in about 0.5 second!

Next, the tracking ability of the cartridge is checked with a 1,000-Hz signal whose velocity sweeps rapidly from 10 to 20 cm/sec. As the signal level sweeps upward, the voltage outputs from both cartridge channels are sampled periodically and divided by the previously determined cartridge sensitivity to convert the data to actual recorded-velocity levels. After each sampling of level, the harmonic content of the cartridge output is measured. When the distortion in the output reaches 4.5 per cent, the cartridge is considered to have reached its tracking limit. It is interesting to note that this test involves about sixty sets of measurements over a time span of only 1.5 seconds.

Finally, the frequency response and channel separation are measured. Twenty-three discrete frequencies, from 500 Hz to 50 kHz, are recorded at a constant 3.54-cm/sec velocity, and all of them are played in about 3.4 seconds per channel. Each of the bands on the record was calibrated beforehand by the variable-speed method I've described, and the correction factor for each frequency was stored in the computer memory. The computer program matches the cartridge outputs against the known test-record response and

prints the corrected data on a chart. It also plots continuous frequency-response and separation curves based on the spot-frequency measurements. The entire cartridge test process is not only very thorough and accurate, but it requires just under 9 seconds (this is somewhat faster than my normal pace for the same tests, I assure you!).

WHEN I visited the B&O plant, I watched an operator run three cartridges simultaneously on the same computer (using different arms and turntables, of course). As he plugged a cartridge into the modified radial-tracking arm (similar to the one used on the B&O 4002 record player), the stylus was first lowered to a sensitive force gauge and the vertical tracking force was automatically set to exactly 1 gram (adjusting the force for each cartridge compensates for slight differences in their weights). Then the arm moved over the turntable and played one of the twelve test bands, returning to its rest position after the 9-second test cycle. While this was going on, the operator was removing a cartridge from one of the other test arms and a test was already under way on the third. Each cartridge is packed with a computer print-out slip showing its output voltage, channel separation, and response at key frequencies.

B&O has found that they can play each band of the record about one hundred times before it becomes worn, and the test automatically moves on to the next band at the appropriate time. Obviously, this system is ideally suited to production-line testing, but it could in principle be applied (though more slowly) to testing different kinds of cartridges.

More recently, during a visit to Vienna, I saw a computer cartridge-test setup in the AKG Acoustics engineering laboratory. The computer sent a series of discrete-frequency

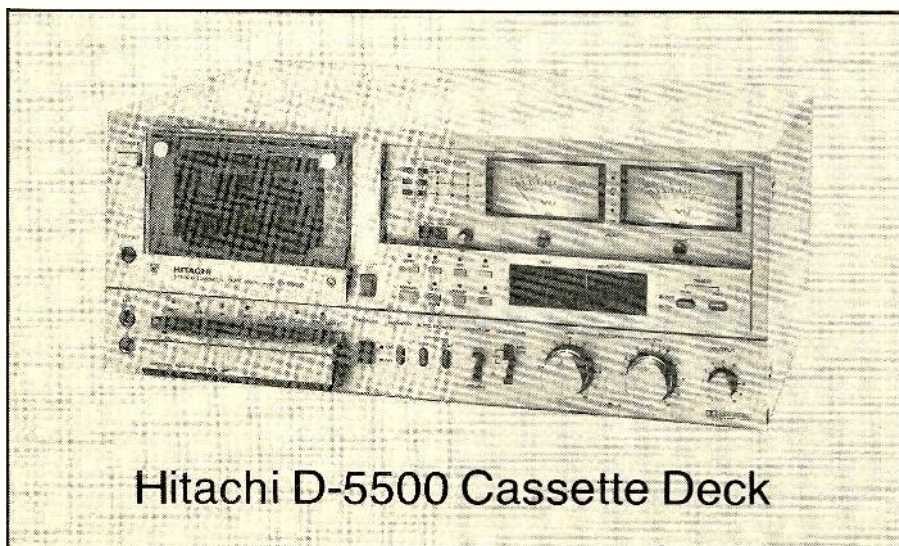
test signals to a Neumann recording lathe which cut a lacquer test record on the spot. The record could be calibrated, by a multi-speed method, and the correction data stored in the computer's memory. The record was then played by the cartridge under test, whose outputs were processed, corrected for the record characteristics, and also stored in the computer memory. Finally, after the test, the computer operated an X-Y plotter to produce continuous-line response and channel-separation curves.

Though not as spectacularly fast as Bang & Olufsen's setup, the AKG installation was equally effective in giving what is probably the closest approximation to a "true" plot of the frequency response and channel separation of a phono cartridge. This installation is used primarily as an engineering design tool, and production-line testing was done by equipment that is a bit less exotic. A standard B&K test record is played and the cartridge response is plotted conventionally on a B&K chart recorder (the curve is packed with each cartridge of their top-of-the-line Model P8ES series). The complete measurement on each of these fine cartridges appeared to require about one minute or less (still somewhat faster than my rate).

I will admit I felt a twinge of envy as I watched computers do in seconds what takes me minutes or hours—and no doubt do it more accurately than I could. Considering the rapid advances in microcomputer technology that are taking place, it is not impossible that some day our own tests will be done with the assistance of a small computer. However, what I would really appreciate is a computer that could mount a cartridge in a tone arm without fumbling or dropping the hardware! Unfortunately, that miraculous development seems to be a longer way off. □

Equipment Test Reports

By Hirsch-Houck Laboratories



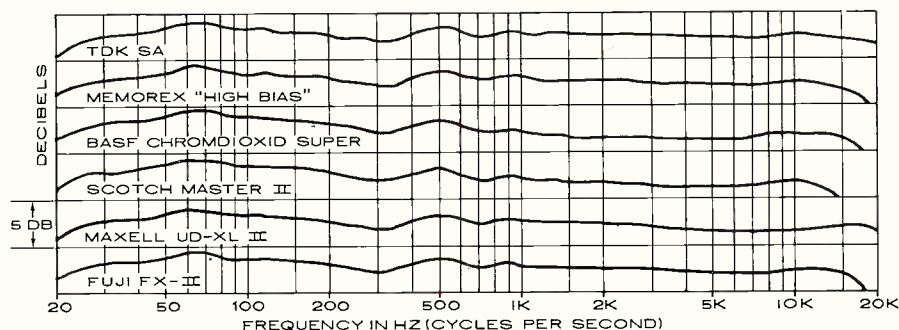
Hitachi D-5500 Cassette Deck

THE Hitachi D-5500 is one of the very few available cassette decks capable of setting recording bias, equalization, and level for virtually any cassette tape formulation (except metal types) and then storing the settings in an internal memory. It is also a three-head machine whose "double Dolby" circuits permit monitoring from the tape with proper Dolby decoding while recording. The D-5500 uses a direct-drive capstan motor and has a separate motor to drive the tape hubs.

Aside from the above-mentioned automatic optimization feature, which Hitachi calls ATRS ("Automatic Tape Response System"), the D-5500 is a full-feature deck with separate mixing inputs for line and microphone sources, adjustable playback-output level, and front-panel headphone and microphone jacks. It is a front-loading machine whose cassette door opens with a damped action at the touch of the EJECT button. The entire cassette is visible through a window in the door.

The tape transport is solenoid-controlled through light-touch pushbuttons. Switches control the Dolby system (which can be used with or without a 19-kHz FM MPX filter), tape or source monitoring, and the memory-rewind system. This last can be set to stop the tape when the index counter reaches 000 in rewind mode or to go automatically into play after it stops. The recorder has two large illuminated level meters, between which are three LED's that glow at signals levels corresponding to 0, +3, and +7 dB.

On the rear apron of the D-5500 are duplicate sets of input and output jacks, marked **FIXED** and **VARIABLE**, selected by a recessed switch. In the **FIXED** mode, the front-panel level controls are inoperative. Another recessed switch is marked **MICROPROCESSOR RESET**; it is used to "clear" the ATRS computer memories (the memory circuits are powered by batteries so that the machine retains stored information even when it is not connected to an external power source).



Hitachi D-5500 record-playback curves, measured at -20-dB reference level, for six different types of tape. In each case, bias, equalization, and other operating conditions were optimized by the recorder's ATRS and do not necessarily represent the tape's intrinsic performance.

Another unusual feature of the Hitachi D-5500 is its wireless remote-control system. When it is employed, the actual transport-control section of the deck becomes the remote controller. Pushing the **REMOTE REMOVAL** button next to it causes the entire assembly to pop out so that it can be removed; when it is, a flat plate appears from within the recorder to cover the opening. The control module, powered by internal batteries, transmits pulse-width-modulated signals over an infrared carrier to a receiving sensor in the cassette deck. When the module is inserted into the opening in the front of the deck for normal operation, its transmitter "window" abuts the deck's sensor "window" and the control module is powered from within the recorder.

The functions provided by the control module include fast forward and rewind, play, stop, pause, **REC**, and **REC MUTE** (this removes the incoming signal when its key is held down during recording). Colored LED's on the panel of the D-5500 show the operating mode.

The ATRS uses a four-bit microprocessor to control four audio-frequency oscillator signals, several analog-to-digital and digital-to-analog converters, variable-gain amplifiers, and the frequency response of two electronically controlled equalizer circuits. The purpose of all this circuitry is to duplicate what a skilled technician, using the appropriate test instruments, would do to optimize a tape recorder for a specific tape. However, the

D-5500 does it at the touch of a button in less than 20 seconds and then stores the resulting data in one of three memories so that one can use that particular type of tape at a later time without having to repeat the calibration.

To use the ATRS system, one loads the tape and sets the machine to **RECORD**. Touching the **TEST** button on the panel initiates the automatic process (and disconnects any external incoming program). First, a 1,000-Hz test signal is automatically recorded and played back, and the output of a variable-gain amplifier is adjusted by the computer to give a playback level within the normal operating range of the other circuits (if the playback signal is too low or entirely absent, as on a leader-tape section, the machine stops and the **TEST** light blinks on and off). Then a 5,000-Hz signal is recorded by the computer and the bias is varied over a wide range in sixteen steps while the output voltage from the tape is measured to establish optimum bias according to Hitachi's criteria. After this, the initial gain

When a tape is first loaded into the machine, it switches the recorder automatically to factory-preset adjustments for UD-ER, or for UD-EX if the rear of the cassette has the special "chrome bias" notch that is used on all tapes requiring the high bias level of CrO₂ tape. For a ferrichrome tape or an older CrO₂ tape which has no identifying notch, the selection must be made manually by touching the appropriate button. For tapes other than these, the **TEST** button is pressed to initiate ATRS adjustments. And it is of course possible to use ATRS with UD-ER and UD-EX if desired.

Because of the ATRS system, the frequency-response ratings of the Hitachi D-5500 are relatively independent of the type of tape used—30 to 15,000 Hz ± 1.5 dB with ATRS and slightly better with the two specified Hitachi tapes and the factory-preset adjustments. Other key ratings include a very low flutter of 0.028 per cent (wrms) and a signal-to-noise ratio of 68 dB (A-weighted, referred to a level that results in 3 per cent distortion and with Dolby circuits operating).

The Hitachi D-5500 is 17 $\frac{1}{8}$ inches wide, 12 $\frac{3}{8}$ inches deep, and 7 $\frac{1}{4}$ inches high. The control unit, when extracted for remote use, is about 5 inches wide, 3 $\frac{1}{4}$ inches deep, and 1 $\frac{1}{4}$ inches high. The complete D-5500 weighs about 31 pounds. Price: \$1,200.

● **Laboratory Measurements.** The test machine was supplied with a sample of Hitachi UD-EX tape, which we used to verify its performance in the CrO₂ bias mode. We also measured the record-playback frequency response with a large number of other tapes, including BASF Professional II; Fuji FX-I and FX-II; Maxell LN, UD-XL I, and UD-XL II (this last was essentially identical to the Hitachi UD-EX tape); Memorex MRX₃ and High Bias; Scotch (3M) Dynarange, Master I, Master II, and Master III; Sony FeCr; and TDK AD and SA. All the tapes gave responses well within the recorder's rating and were very similar in their overall performance after the ATRS processing. We selected the TDK AD as our "normal" tape and Sony FeCr as the ferrichrome tape for our other tests.

The playback equalization of the D-5500 was within ± 1 dB from 40 to 10,000 Hz for the 70-microsecond (CrO₂ and FeCr) characteristic when tested with a Teac 116SP test tape. The 120-microsecond response was within ± 2 , -0.7 dB from 40 to 12,500 Hz with the TDK AC-337 test tape.

We measured the record-playback response of each of the three basic tapes at levels of 0 and -20 dB, using both the factory-set adjustments (**MANUAL**) and ATRS. There was very little difference between the two modes within the audio range, although **MANUAL** tended to give slightly more output at 20,000 Hz and above. This is reasonable, since the ATRS optimizes the high-frequency response at 14,000 Hz and one can expect some further response variations among various tapes above that frequency.

The Hitachi UD-EX response was +1, -3 dB from 20 to 20,700 Hz (**MANUAL**) and +1.5, -3 dB from 20 to 18,000 Hz (ATRS). The TDK AD gave a response of +1.5, -3 dB from 20 to 20,600 Hz (**MANUAL**) and +2, -3 dB from 20 to 18,500 Hz with the ATRS. With both tapes, the high-frequency headroom was excellent, attesting to the effectiveness of Hitachi's "two in one" format—record and playback elements housed in one head assem-

(sensitivity) adjustment is repeated at 1,000 Hz, since a bias change will affect this parameter. This assures correct Dolby-level calibration for any tape, since it compensates for any differences in tape sensitivity. Finally, 7,000- and 14,000-Hz signals are recorded in sequence and equalization is adjusted so that playback output at those frequencies equals that at the 1,000-Hz level. At this point, all the test data—bias, level, and equalization—are stored in the computer memory and the tape rewinds to the starting point and stops, ready for use. Pressing the **TEST** button and one of three memory buttons (M1, M2, or M3) transfers the stored data to the selected memory, from which it can be recalled at any time by another touch of the same memory button.

An array of colored lights above the ATRS controls flashes while the ATRS is operating. When the data have been stored in one of the memories, a LED display shows which tape type has been assigned to which memory. While the ATRS process is under way, two smaller meters to the right of the controls show the variations in bias and sensitivity and the final values selected by the computer in arbitrary percentage units. At any future time, a push on one of the memory buttons shows the stored values on the meters.

The D-5500 also has conventional tape-selection pushbuttons for Hitachi UD-EX (chrome equivalent) and UD-ER (ferric) tapes as well as for an unspecified ferrichrome tape.

bly. The intersection of the 0-dB and -20-dB response curves was in the region of 17,000 to 18,000 Hz with either tape.

The Sony FeCr tape, with MANUAL settings, had a response within ± 2.5 dB from 20 to 20,000 Hz, but it was more easily saturated than the other tapes at high frequencies. The 0-dB curve sloped downward above 1,000 Hz and intersected the -20-dB curve at 15,000 Hz. With the ATRS system, the Sony tape's response was ± 3 dB from 20 to 17,000 Hz at -20 dB.

The record-playback responses with all the other tapes were, for the most part, identical up to about 10,000 Hz and nearly so up to 15,000 Hz. Above that frequency, they tended to differ considerably. Memorex MRX₃, Maxell UD-XL II, and TDK SA continued practically flat to our 20,000-Hz measurement limit. Most of the others showed a slight fall in response between 15,000 and 20,000 Hz, but Scotch Master II, Maxell LN, Scotch Dynarange, Fuji FX II, and BASF Professional II dropped off more rapidly at the highest frequencies. However, these measurements serve to demonstrate that, within its control range (up to 14,000 or 15,000 Hz), the ATRS made the frequency response virtually independent of the tape used.

Of course, these tapes are not all alike, and one must expect differences between them. Signal-to-noise ratios (S/N), using CCIR/ARM weighting and the Dolby system and referred to the recording level giving 3 per cent total harmonic distortion on playback, varied from 63.3 dB for TDK AD (set by MANUAL) to 68.3 dB for Sony FeCr (set by ATRS). Using the ATRS system typically improved the S/N performance by 1 or 2 dB over the MANUAL mode. The 3 per cent distortion level cor-

responded to a recording input of +6 dB for TDK AD, +4 to +5 dB for Hitachi UD-EX, and +4.5 to +6.5 dB for Sony FeCr (the higher figures were obtained with the ATRS). The playback-output level was in the range of 0.5 to 0.6 volt from a 0-dB recording level, depending on the tape used and the adjustment mode. The noise level through the microphone input, at maximum gain, increased by about 8 dB over the line-input noise level.

For a 0-dB recording level, a line input of 56 millivolts or a microphone input of 0.29 millivolt was needed, and the microphone input overloaded at 56 millivolts. Although the meters are marked "VU," they are much too slow to be so designated, reading only 60 per cent of steady-state values on 0.3-second tone bursts (a VU meter should read 99 to 101 per cent in that test). However, the LED's responded rapidly and accurately at the indicated levels. The Dolby-level calibration of the meters was accurate to within 0.5 dB. The crosstalk between channels at 1,000 Hz was a fine -41 dB as measured with a TDK AC-352 test cassette.

The Dolby tracking of the Hitachi D-5500 was good, with the largest change in response between Dolby on and off conditions being 1.5 dB at -20 dB and much less than that at levels of -30 and -40 dB. The multiplex filter, which functions during recording, has no significant effect below 15,000 Hz but reduces the 19-kHz response by about 20 dB to prevent a tuner's pilot-carrier leakage signal from affecting the recorder's Dolby system.

The tape transport, which operated very smoothly and quietly, had a very low flutter of 0.035 per cent (WRMS), or ± 0.07 per cent weighted peak (CCIR). In a combined record-playback flutter measurement, the CCIR

reading was a slightly lower ± 0.05 per cent. The tape speed was 0.7 per cent fast at the beginning of a cassette and 0.5 per cent slow at the end. In fast forward or rewind, a C-60 cassette was run through in 95 seconds.

● **Comment.** The Hitachi D-5500 is a superb tape recorder that ranks among the best cassette decks we have seen and used. It is easy to operate, and the availability of *full* wireless remote control (not just one or two functions) should be a strong attraction for many people. The control system worked perfectly, whether at a distance or inserted into the machine. It is difficult to see many of the LED indicators except from directly in front of the machine, and some differentiation of size and shape of the transport controls would have been helpful. On the whole, however, it is difficult for us to contain our enthusiasm for the ATRS system, which solves the most important problem of the cassette recording medium: the necessity of matching tape and recorder characteristics if proper results are to be obtained. Nearly every time we have reviewed a cassette deck, we have been forced to emphasize that without a specific recommendation from the manufacturer (and sometimes not even then, due to variations in production of both tape and recorder) one has little chance of realizing the full performance potential of either the tape or the recorder. Even those machines with bias or equalization adjustment on the front panel often allow only one of these parameters to be varied, and not all of them have the user-accessible level adjustments and test oscillators that are needed to permit a Dolby system to operate properly following such changes in recording bias or equalization.

With Hitachi's ATRS it is easy to obtain close to optimum results with any cassette tape. Although a rather powerful small computer was needed to replace a human technician and a bench full of instruments, the trade-off is certainly a good one for the consumer! As for the sound of the D-5500, a comparison of input and monitor output signals from interstation FM tuner hiss revealed virtually perfect reproduction with the UD-EX tape. The TDK AD was slightly bright, and the Sony FeCr slightly dull; however, both effects were confined to frequencies above about 15,000 Hz. These comparisons were made after the ATRS adjustment for each tape. Music could be recorded and played back with perfect fidelity from records and FM broadcasts. We dubbed the Telarc recording of Stravinsky's *Firebird* onto the UD-EX tape, and in a direct comparison we were somewhat surprised to hear *no* difference in quality or dynamics, and only a small increase in noise level, between the record and the tape. (Perhaps some golden ears could have heard a greater difference, but in any case it would be a trivial one.) One could hardly ask for more from any cassette recorder.

While the price of the Hitachi D-5500 is admittedly high, what one buys is a superb recording mechanism plus a remarkably effective system that enables the consumer to realize the full potential of both the machine and any tape likely to be used with it. In short, we find the D-5500 a most impressive achievement in consumer-product engineering.



"Is it possible to erase a politically unreliable second violinist from a tape of the Boston Symphony while leaving The Moldau intact?"

Circle 140 on reader service card

(Test reports continued on page 52)

Gruesome Twosome.



Performance. Power. Period.

Mitsubishi Car Audio. It's Power by the Pair. The CV-21 Control Power Amplifier has 20 watts RMS per channel and features separate volume, treble, bass and fader controls and high/low inputs. It can be used as a control amplifier with a tuner or tape deck, or as a power booster for existing car stereo radios.

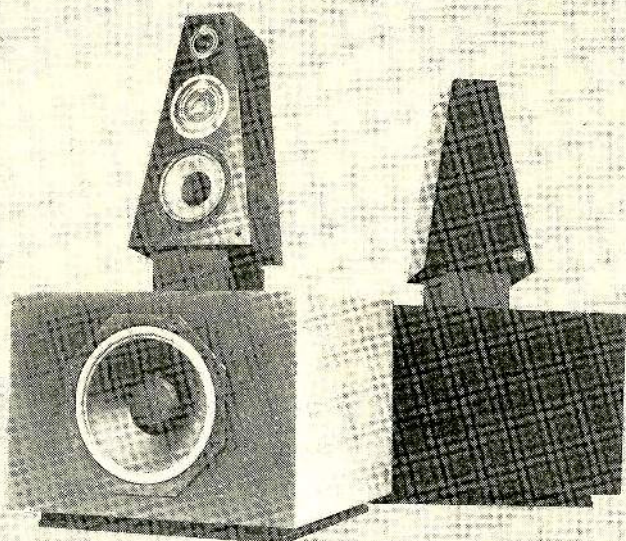
For the ultimate in control, it's the CV-23 Graphic Amplifier/Equalizer. It is a perfect match with car audio components or existing car stereos.

The CV-23 features 30 watts RMS per channel, fader and balance controls, two-channel LED power indicators, selector switch, high/low inputs and a 6-position graphic equalizer for complete sound contour control.

Well defined lows. Transparent mid-ranges. Shimmering highs.

The CV-21 and the CV-23 are the Gruesome Twosome.

 **MITSUBISHI**
CAR AUDIO
SOUND US OUT



RTR PS/1: DAC/1 Speaker System

THE RTR PS/1: DAC/1 speaker system consists of two separate sections: a small three-way acoustic-suspension system and a large subwoofer module. They are available separately for use with other components or in the combination we tested.

The PS/1 Pyramid Satellite, as its name indicates, is a system that roughly resembles a pyramid, the sealed enclosure being truncated slightly at its top. Its shape is designed to minimize internal resonance modes. At the bottom of the pyramid is an 8-inch acoustic-suspension woofer which crosses over at 1,500 Hz to a 1½-inch soft-dome midrange driver. Both the woofer and the midrange driver have high-temperature voice coils and heavy magnet structures; at 9,000 Hz there is a second crossover to a 1-inch soft-dome tweeter. Recessed into the rear of the PS/1 enclosure are binding-post terminals, a continuously adjustable tweeter-level control, a pushbutton to reset a protective circuit breaker, and a toggle switch that inserts a crossover to roll off response at 6 dB per octave below 120 Hz (for use with the DAC/1 subwoofer). The drivers are all aligned vertically, and the tapered shape results in the enclosure's being barely wide enough to mount the drivers; this is said to be effective in reducing diffraction effects that could disturb the radiation pattern.

The basic frequency response of the RTR PS/1 is rated at 120 to 20,000 Hz, ± 2 dB, but the low-frequency response can be extended by using an appropriate amount of bass boost in the amplifier. According to RTR, the lower limit can be extended to 40 Hz in this manner. The pyramidal enclosure is 22 inches high and 8 inches deep. It is 12¾ inches wide at the bottom, tapering to 5 inches at the top. Weight is 29 pounds. Price of the PS/1: \$295. Optional tilt stands are available for approximately \$35 a pair.

The DAC/1 "Differential Area Coupler" is a large, heavy subwoofer that can be used to complement the response of the PS/1 (whose efficiency it matches) or as an add-on to other speaker systems. Its walnut-finish cabinet is 29¾ inches wide, 28 inches deep, and 21¾

inches high, and it weighs 130 pounds. Although there is room on the base to mount casters, they are not included with the speaker. The bottom of the enclosure is raised slightly off the floor, so that the single downward-facing 12-inch woofer can radiate in all directions through a slot about 1 inch high that extends around all four sides of the enclosure. On two of the opposing sides are 15-inch passive radiators whose cones are heavily mass-loaded. These sides are covered by snap-on grilles that normally face the sides of the room.

The DAC/1 has a rated frequency response of 16 to 150 Hz ± 2 dB. Underneath it, next to the input binding posts and circuit-breaker reset button, is a switch that connects a 120-Hz 6-dB-per-octave crossover filter to the input (complementary to the crossover in the PS/1). The crossover, like that of the PS/1, need not be used if the PS/1 and DAC/1 are biamplified. Price of the DAC/1: \$550.

● **Laboratory Measurements.** Although the parts of this system can be used separately or with components, we tested them as a complete stereo system, using a PS/1 and a DAC/1 on each side of the room. The two were simply connected in parallel, as recommended, and considered as a single speaker system in their connection to the amplifier. The 120-Hz crossover networks were switched in during our measurements. The PS/1's were placed on top of the DAC/1's and the tilt stands were used to lean them back slightly as shown in the photo. Because of their size and weight (the speakers filled much of the available space in our listening room), we were unable to experiment extensively with the systems' placement. However, we believe that our measured results are adequately representative of the speakers' performance. We followed our usual practice of driving the speakers (which are relatively efficient) from a number of different receivers and amplifiers.

Following the manufacturer's recommendation, we set the tweeter-level controls at their mid positions, which gave the flattest

frequency response. From 1,700 to 20,000 Hz the output, measured in the reverberant field of the room, varied by only ± 1.5 dB and appeared to extend well beyond 20,000 Hz. There was a dip at around 1,000 Hz, but this may have been related to factors other than the performance of the speakers. The horizontal dispersion at high frequencies from the PS/1 tweeter was not particularly wide, but the PS/1's can easily be angled to favor the listening area.

Measuring the low-frequency output of the DAC/1 with our usual close-mike technique was not as straightforward as we would have liked because of the lack of direct access to the front of the 12-inch active woofer and the presence of the two low-bass passive radiators. In any case, the spliced curve combining the bass- and upper-frequency measurements was within ± 4 dB from 20 to 20,000 Hz (and obviously extended well outside those limits, beyond which we could not measure). Judging from our curves, the DAC/1 system easily met its 16-Hz lower-limit specification.

Bass distortion could not be measured easily, for the reasons outlined above. However, even ignoring the contribution of the passive cones below 50 Hz, the distortion was under 0.3 per cent from 100 to 70 Hz and only 5 per cent at 30 Hz with a 1-watt input (referred to an 8-ohm load). Increasing the drive to 10 watts increased the distortion very little: 0.5 to 1 per cent down to 70 Hz and 7 per cent at 30 Hz.

The PS/1: DAC/1 system had a relatively low impedance that was fairly uniform with frequency. Over much of the low- and mid-frequency range it was between 4 and 5 ohms, rising to a maximum of about 17 ohms at 1,200 Hz. However, at 3,000 Hz and above the impedance was only about 3 ohms. Almost any good amplifier should be able to drive this load, and no one is likely to parallel two PS/1: DAC/1 systems on a single amplifier. System sensitivity was measured in the midrange, around 1,000 Hz, where an input of 2.83 volts of random noise produced an 88-dB sound-pressure level at a 1-meter distance from the PS/1. The tone-burst response was very good over each driver's range.

● **Comment.** From the size and weight of these systems, to say nothing of their specifications, we expected to be overwhelmed by their deep bass from the beginning. To our surprise, the low-frequency output of the PS/1: DAC/1 system was apparently less than that of other speakers on hand, including some bookshelf units! The bass did not sound "thin," but there was no feeling, with most records or broadcasts, of any unusual deep-bass potential being present. Overall, the sound was exceedingly smooth and well-balanced, with an "airy" quality and a tendency toward brightness.

When we played a number of records with exceptional low-bass content, however, the results were all we could have hoped for. Organ pedals in the 30-Hz and below range popped our ears, rattled objects in the room, and were almost as palpable as audible.

Our initial reaction to the sound of the system was influenced by its *absolutely non-boomy bass*. Unlike most speakers we have used, this system does not emphasize the 80- to 150-Hz region. (This is the area that gives most male voices an unnaturally heavy quality when reproduced by a speaker.) The RTR

(Continued on page 54)

How can equipment designed for an average listening room perform optimally in your environment?

There's nothing particularly wrong with your stereo system. It's just that different rooms have different acoustics.

Of course, you could build a room specifically designed around the needs of your speakers, and you could rebuild it every time you upgrade your system. But we have an easier way; an MXR Graphic Equalizer that enables you to achieve maximum performance from *your* system, in *your* room... without moving walls.

Our equalizers allow you to critically adjust the frequency balance throughout the entire musical spectrum. They can help to correct certain audible inconsistencies common in many of today's records and tape recordings. You can choose the MXR equalizer that best suits your needs. We make three models that differ in flexibility and precision/sophistication, but each is built to the same exacting specifications and all three share MXR's reputation, in the professional field, for reliability and integrity.

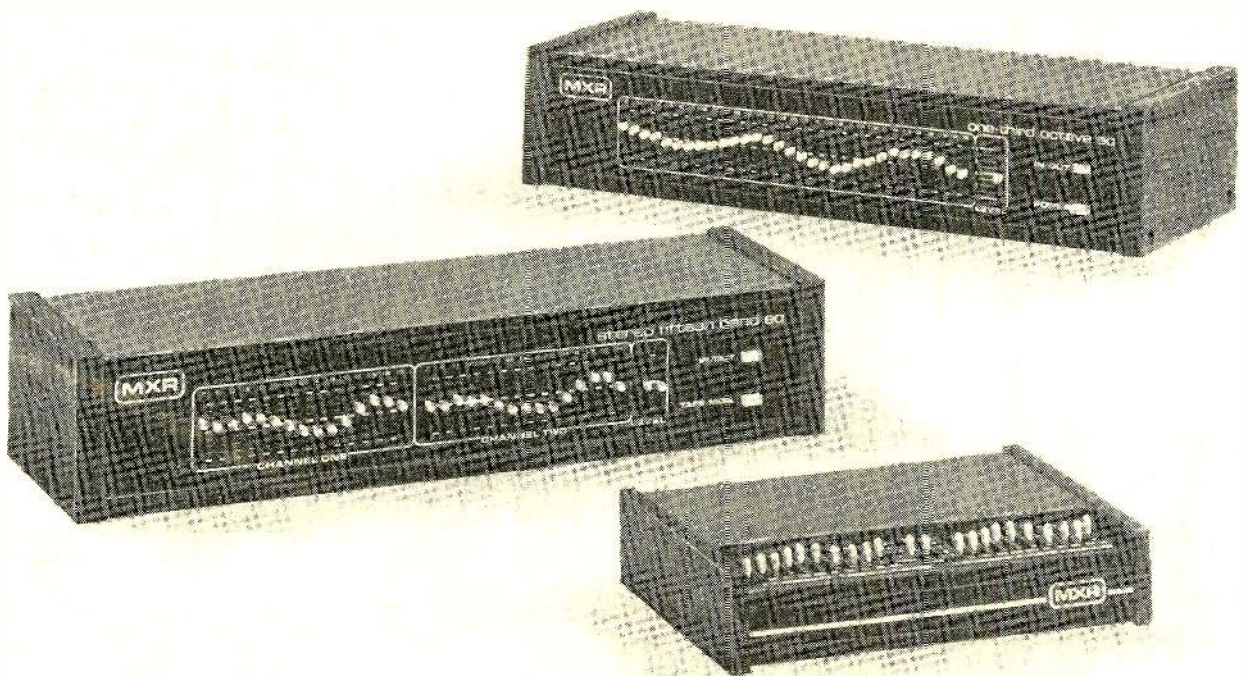
Our popular ten band stereo EQ has one band per octave. Our stereo fifteen band model allows even greater control with two-thirds octave per slider; and for the true audiophile, the MXR thirty-one band equalizer provides ultimate control with one-third octave per slider.

Each of the MXR Graphic Equalizers can help you get the most from your stereo system by working with your room, not against it.

Your MXR dealer can help you choose the MXR equalizer that best suits your needs.

MXR Innovations, Inc., 247 N. Goodman Street,
Rochester, New York 14607, (716) 442-5320

MXR Consumer Products Group



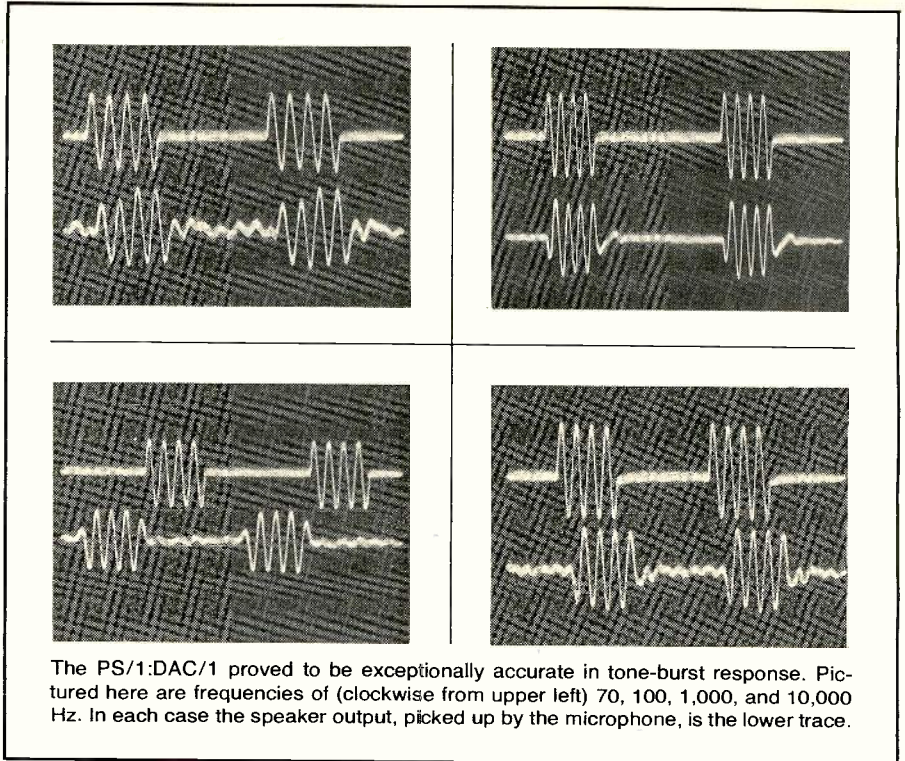
DAC/1 seems to be almost in a class by itself in that respect. If the program really has energy in the 20- to 40-Hz range (which is unusual), the DAC/1 delivers it in full measure; if those frequencies are not present, the speaker gives no hint of its potential for reproducing them.

Because of the relatively high sensitivity of the PS/1:DAC/1, it can be driven very well by amplifiers in the 60- to 80-watt range. Of course, it can also be used with much more powerful amplifiers.

The size of the DAC/1 modules, it seems to us, rules out the full system for any but the largest listening rooms. Our 15 x 20 foot room was too small for these systems, both physically and acoustically (we have no doubt that the lowest bass from the DAC/1 would be developed only in a room several times the size of ours). A more livable arrangement, which we also tried, would be to use the pair of PS/1's with a single DAC/1 connected in parallel with only one of them. As RTR points out, in the frequency range of the DAC/1 there is virtually no stereo information, and one DAC/1 sounded for all practical purposes like a pair of them. A DAC/1 subwoofer can be used as an end table and need not be located in any specific relationship to the PS/1's.

Although a PS/1 could be used by itself as a full-range speaker, its low-frequency response is not what we would expect from a speaker costing about \$300. It is an ideal companion for the DAC/1, though, and its overall sound quality is excellent. The DAC/1 could also be used as a fine subwoofer with a pair of the very fine miniature speakers available from any of several manufacturers.

Although we placed the PS/1's on top of the DAC/1's for convenience, their small size and



The PS/1:DAC/1 proved to be exceptionally accurate in tone-burst response. Pictured here are frequencies of (clockwise from upper left) 70, 100, 1,000, and 10,000 Hz. In each case the speaker output, picked up by the microphone, is the lower trace.

weight allows considerable flexibility in their placement. Aside from the potentially better low-bass output, this flexibility is in our view the major advantage of the separate subwoofer-with-satellite configuration. And in respect

to sonic quality, we have not encountered a better example of such a system than the RTR PS/1:DAC/1.

Circle 141 on reader service card



NAD 3020 Integrated Stereo Amplifier

THE NAD (New Acoustic Dimension) brand name has existed in Europe for about seven years but is probably unfamiliar to most American audiophiles. NAD is an unusual company, involving an international group of independent dealers whose needs and suggestions play a major part in the devel-

opment of its products, which are designed to sound as good as the state of the art permits and to sell at prices within the reach of a broad segment of the buying public.

In designing its Model 3020 integrated amplifier, NAD began with the assumption that, for a given power-output level, a state-

of-the-art unit need not cost significantly more than a poor or mediocre one. They focused on the design areas that can cause listening problems—for example, protective circuits that cause distortion with very low or highly reactive speaker loads, phono preamplifiers whose circuits interact with phono-cartridge inductance to affect high-frequency response, and circuits whose excessive bandwidth makes them vulnerable to interference from radio transmitters and overload from infrasonic turntable rumble or disc warps.

The power supply for the NAD 3020 output stages is loosely regulated—that is, when there is little or no audio signal present, the supply voltage is relatively high, giving the amplifier a large short-term power-output capability (which is reflected in its very high IHF dynamic-headroom rating). A heavy load, whether from high average signal levels or from a very low load impedance, causes the power-supply voltage to drop, limiting the current through the output transistors to a safe value.

The preamplifier section of the NAD 3020 is electrically separate from its power amplifiers; it even has its own regulated power sup-

(Continued on page 56)

If you're happy with your car stereo, it's probably because you don't know any better.

You can blame Detroit for pulling the wool over your ears.

They put an FM radio and tape deck in your dashboard and told you it was "stereo."

It wasn't.

They only gave you the start of a stereo system.

The rest of it, you get from us.

It's called the Fosgate system.

And it makes your car sound as good as your living room. Maybe better.

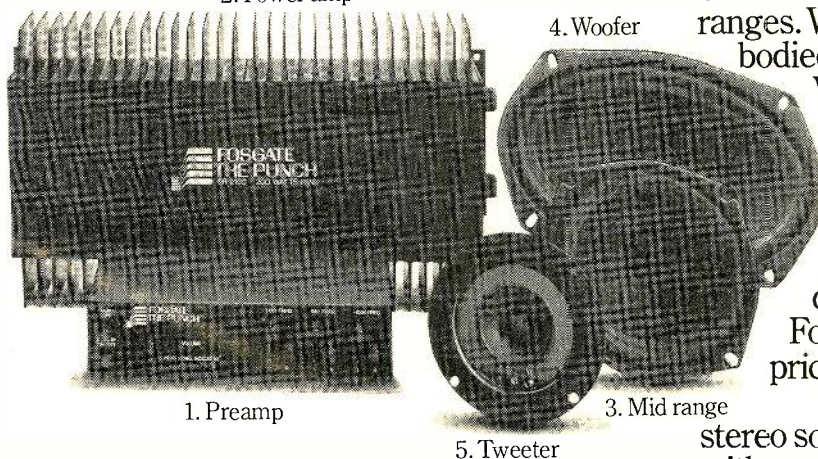
Take our Punch 2100 for instance.

Power amp, preamp, and your choice of speakers.

The power amp gives you 100 watts RMS per channel. The kind of power you need for clean, high fidelity playback on the highway.

With less than .05% THD, you'll hear no distortion all the way from 20 HZ to 20 KHZ.

2. Power amp



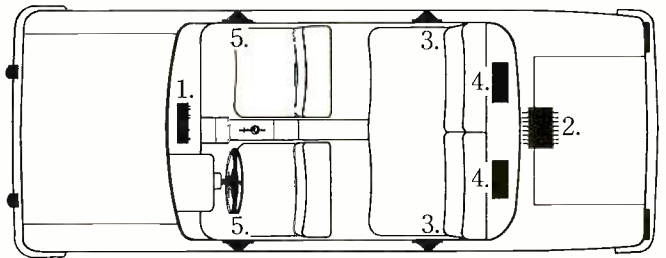
1. Preamp

4. Woofer

3. Mid range

5. Tweeter

The preamp has LED readouts. And an active equalizer circuit with 216 different ways to shape the sound to your personal taste.



For your car, we make components good enough for your home.

When it comes to speakers, very few can handle the power of the Punch.

None can do it for the reasonable price of Fosgate's speakers.

When your Fosgate system is installed, you can crank up the volume so it literally vibrates your rear-view mirror.

With rich, well-defined bass. With brilliance and clarity in the mid and high ranges. With accurate separation and full-bodied imaging.

Without audible distortion.

Even the most demanding audiophile would be impressed.

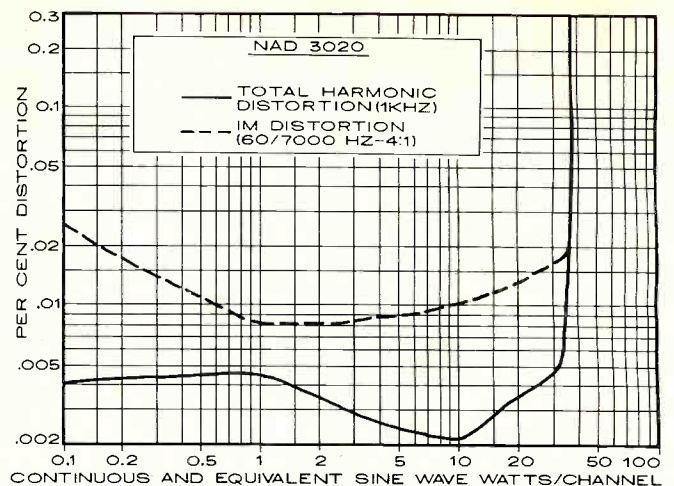
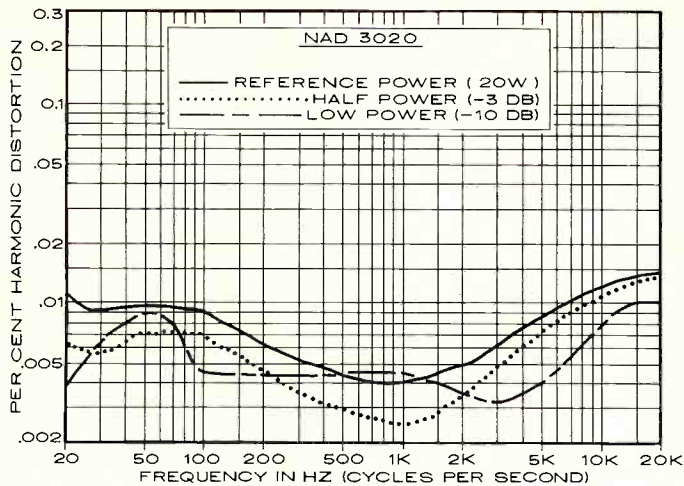
Hear what you've been missing all these years. Visit any respectable car stereo dealer and listen to the four Fosgate systems in four different price ranges.

Once you know what real car stereo sounds like, you'll never be happy with anything less than Fosgate.

The Fosgate System

It's as far as you can go in car stereo.

CIRCLE NO. 12 ON READER SERVICE CARD



ply fed by a separate winding on the power transformer. It has a fixed 12-dB-per-octave infrasonic rolloff below 15 Hz. The preamplifier outputs are brought out to the rear of the amplifier, where they are connected by jumper links to either of two sets of power-amplifier inputs. The NORMAL amplifier inputs cut off at 10 and 30,000 Hz at 12-dB-per-octave rates to remove noise and interference that could consume the amplifier's limited power reserves, leaving less for the desired program. Together with the preamplifier's infrasonic filter, this provides a 24-dB-per-octave cutoff of any possible rumble energy. For those who prefer an unrestricted bandwidth, there is a LAB input that bypasses the power amplifier's normal input filters.

A unique feature of the NAD 3020, one which contributes to making it sound like a much more powerful amplifier, is the "soft-clipping" circuit that can be introduced by a

slide switch in the rear of the amplifier. When an amplifier clips, distortion composed of high-order harmonics is generated, and they impart a harsh quality to the sound. The "soft-clipping" circuit reduces the strength of these harmonics, thus reducing the audibility of the clipping. If one listens under power-output conditions that are likely to result in clipping, the soft-clipping feature can make the audible results much less objectionable. The drawback of such a circuit is the somewhat higher distortion at power levels just below the rated power output (but not at normal listening levels). The soft-clipping pre-overload distortions are not likely to be heard, NAD explains, because most speakers will have much higher distortion than the amplifier does at those power levels (20 watts or so).

The NAD 3020 is finished in a chocolate brown color with darker-brown knobs. The smaller knobs operate the bass, treble, and

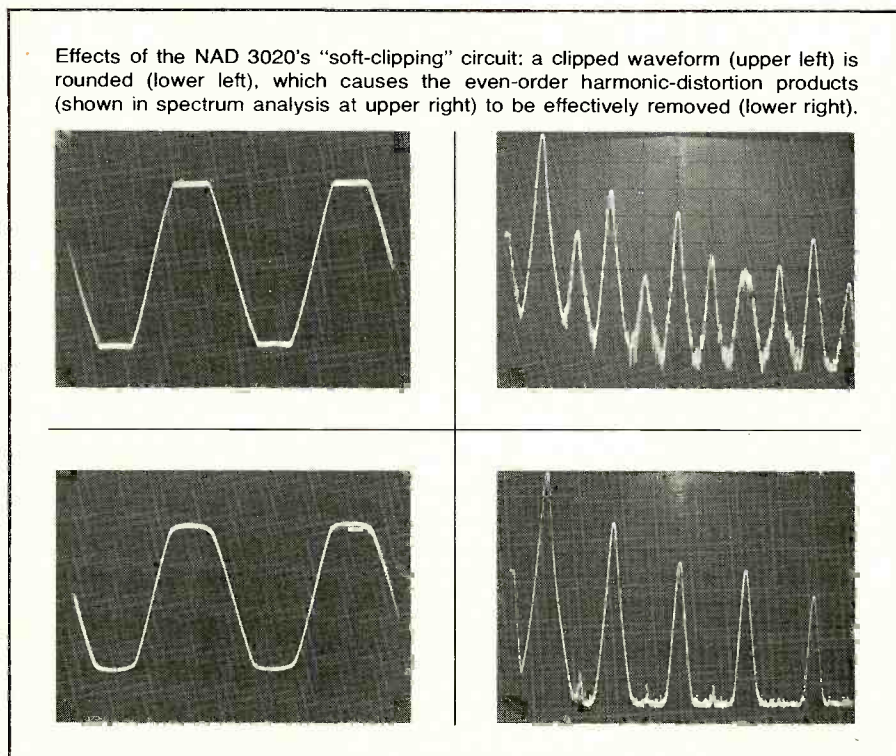
balance controls (all of which are center-detented), and there is a large volume knob. Pushbutton switches (with a light but positive action) are used for power, input selection (AUX, TUNER, PHONO), and tape monitoring or playback. Other buttons control the loudness compensation and audio muting (a 20-dB level reduction). Above the volume control are five red LED's that indicate power-output levels of 1, 5, 10, 20, and 35 watts into 8-ohm loads. The lights are operated by a circuit that responds to the higher of the two channel levels and causes the lights to come on abruptly instead of gradually, as do most LED indicators. This eliminates any ambiguity in the power display. There is also a headphone jack on the front panel that disables the speaker outputs when phones are plugged in, but there are no speaker-switching facilities.

The connectors of the NAD 3020 are on a horizontal shelf extending slightly out from its rear apron. In addition to the signal connectors already mentioned, there are tape-recording inputs and outputs (plus a DIN socket), the soft-clipping switch, and two a.c. convenience outlets, one of which is switched. The speaker outputs use insulated spring-loaded terminals. The NAD 3020 is 16½ inches wide, 4¾ inches high, and 9½ inches deep (excluding the knobs). It weighs about 11.5 pounds. Price: \$175.

● **Laboratory Measurements.** The one-hour FTC-mandated preconditioning period left the NAD 3020 fairly hot directly over the output transistors but comfortably cool elsewhere. With both channels driving 8-ohm loads at 1,000 Hz, the outputs clipped at 34 watts per channel, for an IHF clipping headroom of 2.3 dB. The clipping power into 4- and 16-ohm loads was 46.2 and 24.5 watts, respectively. We did not measure continuous clipping power into a 2-ohm load, which would have blown the protective fuses (the NAD 3020 is rated for this operating condition with program material, but not with a sine-wave signal). However, when we made the IHF dynamic-headroom measurement, which uses tone-burst signals, we used load impedances of 2, 4, 8, and 16 ohms.

The 8-ohm dynamic headroom was 3.26 dB, the highest we have measured since the introduction of this test in the IHF amplifier standard last year. This corresponds to a short-term output of about 42 watts into 8 ohms.

(Continued on page 58)



The most powerful argument for our new receiver is not just power.



True, it's tempting to be swept up by our power.

150 watts per channel minimum RMS at 8 ohms, from 20Hz to 20kHz, with no more than 0.07% Total Harmonic Distortion, is nothing to sneeze at.

But raw power means nothing. What's important is how that power is delivered. In the case of the STR-V7, it's brought to you by Sony in a very classy package.

You get a combination of features and controls that are impressive on their own—but almost unheard of in a single machine.

To start with, we've built in a Dolby system, for decoding Dolbyized FM broadcasts.

The advantages of our tuner,

though, need no decoding. They include a normal and narrow FM IF bandwidth selector. It makes life simple for people in areas where their signals are crowded together elbow to elbow.

In our preamp section, the V7 comes equipped with a special phono EQ circuitry. Thanks to Sony's high IQ, it allows for direct connection of a low-output, moving-coil cartridge phono source. Without calling for an external step-up transformer or pre-preamp.

When you're gifted with as much power as the V7, you need a way to keep track of it. This receiver keeps tabs with two power-output meters, monitoring the power being fed to the speakers. So overload can't result from oversight.

And all that power comes from our direct coupled DC power amp. And our power is stable, thanks to a high-efficiency, high regulation toroidal-coil transformer.

There's a lot more to the STR-V7 than power. This receiver takes the best that contemporary technology has to offer, and offers it in a single machine.

Other manufacturers may have the power to bring you power. But only Sony has the power to bring you more than just power.

SONY® AUDIO

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CIRCLE NO. 42 ON READER SERVICE CARD

The dynamic outputs into 16-, 4-, and 2-ohm loads were about 26, 75, and 107 watts, respectively. The last figure provides a good clue to why the NAD 3020 can drive very low-impedance speaker loads with impunity, as well as to how it manages to sound louder than an amplifier with only a 20-watt rating should.

We also checked the maximum output and distortion of the preamplifier section (which can be used to drive another power amplifier if this is desired). Into a standard IHF load of 10,000 ohms in parallel with 1,000 picofarads (pF), the preamplifier output clipped at 14.7 volts (at 1,000 Hz). The harmonic distortion at a 10-volt output was 0.08 per cent; at 1 volt it was 0.007 per cent.

Total harmonic distortion (THD) at 1,000 Hz for the complete amplifier, driven through the AUX inputs, was between 0.002 and 0.005 per cent from 0.1 to 30 watts output into 8-ohm loads. The intermodulation distortion (IM) was under 0.01 per cent from 0.6 to 10 watts, reaching 0.025 per cent at 0.1 watt and 0.017 per cent at 35 watts. With the soft-clipping circuit switched in, the distortion was unchanged up to about 15 watts output, but at the rated 20 watts the THD was 0.025 per cent. Above rated power, the increase was more pronounced, reaching 0.34 per cent at 25 watts (IM was 0.14 per cent at that power). At power outputs in the 30- to 35-watt range, where distortion was still very low without soft clipping, turning on this circuit resulted in typical distortion readings of several per cent.

At rated power, the THD was between 0.004 and 0.01 per cent from 20 to 7,000 Hz, rising to 0.014 per cent at 20,000 Hz. At half and one-tenth power, the distortion was somewhat lower than at full power. The IHF slew factor was greater than 25 (our measurement limit).

The phono equalization was within +0, -0.5 dB from 70 to 20,000 Hz and down 1.5 dB at 20 Hz (measured at the tape-recorder outputs). The response changed less than 0.5 dB at any frequency when measured through the inductance of typical phono cartridges.

The measured phono-input impedance was 47,000 ohms in parallel with a low capacitance of 50 picofarads.

The NAD 3020 required an AUX input of 45 millivolts (mV), or a phono input of 0.5 mV, for a reference output of 1 watt. Under IHF test conditions, the A-weighted signal-to-noise ratio (S/N) was a very good 87 dB through the AUX input and 77.7 dB through the phono input, referred to 1 watt. The phono preamplifier overloaded at 270 mV at 1,000 Hz and lower frequencies. At 20,000 Hz the overload occurred at 1,500 mV, which is equivalent to 157 mV at 1,000 Hz.

The tone controls had the familiar Baxandall characteristic, with the bass control having a variable turnover frequency and a maximum range of about ± 10 dB. The treble control was hinged at the relatively high frequency of 4,000 Hz and had a maximum range of ± 7 dB. At reduced volume settings, the loudness compensation boosted both lows and highs, with a maximum boost of about 8 dB below 50 Hz. This prevented the circuit from giving the sound an unpleasantly heavy quality—a problem with most loudness-compensating arrangements. This, and the sensible tone-control characteristics, are illustrative of NAD's common-sense approach to audio design. The LED power indicators were quite accurate, with a maximum error of 1.6 dB at the 1-watt level. They were typically within 0.2 to 0.3 dB of the indicated power at the 10-, 20-, and 35-watt points.

● **Comment.** If one were to consider the total performance of the NAD 3020 without knowing its power rating and price, one could well conclude that it was one of the fine amplifiers of our time. Certainly its distortion, noise, and other electrical characteristics could hardly be improved upon. More to the point, there would probably be no sonic advantage to improving upon them. But how can a 20-watt-per-channel amplifier selling for a ridiculously low price be seriously considered for driving typical low-efficiency speakers to raft-ringing sound levels?

Since we do not normally listen to music at power levels that would tax a 20-watt amplifier, we deliberately created the most severe load condition we could devise. All four sets of speakers on our comparator hookup were connected in parallel to the output of the 3020. One of them had an impedance of only 3 ohms at the highest audio frequencies, and the parallel combination of the four would have an impedance as low as 1 ohm at many frequencies and rarely higher than 2 ohms. We would expect any amplifier, no matter how rugged, to distort severely, blow a fuse, or otherwise indicate its displeasure at this callous abuse.

Even when we drove the NAD 3020 to its maximum (lighting the 35-watt LED) there was no evidence of a major malfunction. The sound quality was not significantly degraded as compared with the sound with one pair of the speakers alone. Nothing blew out, although the amplifier became quite warm after a few minutes of this treatment (about as warm as during the preconditioning period).

This subjectively confirmed the results of our tone-burst tests. Within very broad limits, the NAD 3020 did not seem to care what kind of load was connected to its outputs. However, it was not *totally* unconcerned, since an inadvertently short-circuited output during heavy drive conditions blew out a fuse in the amplifier (it can only be replaced by a soldering operation). As a rule, we take a dim view of internal fuses that are soldered into place, but our experience with this amplifier suggests that one is not likely to blow a fuse under "real-world" listening conditions.

Returning to normal listening conditions with one pair of speakers, we drove the amplifier into clipping (as indicated by an almost continuously lit 35-watt LED) with the soft clipping switched off. As expected, the sound was harsh and obviously distorted. Switching in the soft-clipping circuit had an audible smoothing effect, sonically rounding off the rough edges of the distorted waveform. This is shown visually by the accompanying oscilloscope photos of a clipped sine wave with and without soft clipping and by the two spectrum-analyzer photos that show how the soft clipping effectively removes all even harmonics from the output spectrum.

The importance of the soft-clipping feature depends on how you like to listen. If you plan to use this amplifier at output levels that frequently exceed about 20 or 25 watts, there can be a genuine improvement from the soft clipping. If you rarely drive the amplifier into clipping, the soft clipping makes little difference—but it does no harm either.

Unlikely as it may seem that an inexpensive, low-power amplifier can be a notable contribution to the audio art, the NAD 3020 can probably claim that honor. Its manufacturer set out to make an inexpensive amplifier that sounded as loud and as clean as amplifiers of several times its power rating and price, and the 3020 certainly achieves that goal. In addition, as our tests indicated, this little amplifier may actually be "more powerful" with certain very severe speaker loads than some of the heavyweights on the market. So far as we are concerned, it is one of the best values in audio. It makes us wonder what a higher-power NAD amplifier might be like.



Circle 142 on reader service card

(Test reports continued on page 60)



Incredibly smooth, well-defined, powerful. Yet small.

Presenting Yamaha's new NS-10M Mini-Monitor. With wide, even dispersion, high sensitivity and accuracy, the sound is distinctively Yamaha: a rich, solid sound with a tight, firm bass that respects every nuance of tonal shading.

What you're going to wonder is where it's all coming from. Because for the sound, the Mini-Monitor is amazingly small. Weighing in at 3 lbs., the speaker measures only 15.4" high, 8.5" wide. Inside, a 7" cone woofer and a 1.5" dome tweeter produce 90 dB SPL with 1 watt at 1 meter.

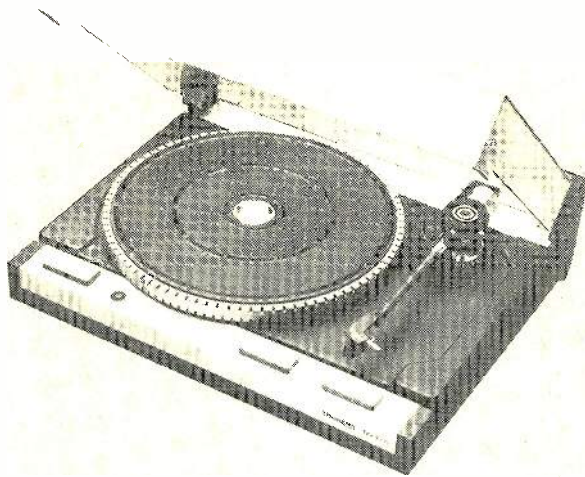
The Mini-Monitor was made in the image of the NS-1000. It has an identical finish, and like its bigger brother, is sold in mirror-image matched pairs. At low volume levels the sound is virtually the same. It's a primary monitor with the NS-1000 look and sound, for places the NS-1000 won't fit.

Our new Mini-Monitor with the powerhouse sound is currently contending with the heavyweights at your Yamaha Audio Specialty Dealer. And holding its own, thank you.



Audio Division, P.O. Box 5600, Elmer Park, CA 90622

If you can't find your nearest Yamaha Audio Specialty Dealer in the Yellow Pages, just drop us a line.



Thorens TD 115C Record Player

THE Thorens TD 115C is a medium-price semiautomatic record player featuring the Thorens TP 30 low-mass "Isotrack" tone arm originally introduced on the top-of-the-line Model TD 126C. Instead of having a plug-in cartridge mount or shell at its free end, the TP 30 is designed to have the cartridge fastened permanently in place, and the entire arm plugs into a socket located close to the pivots. This concentrates the arm mass closer to the pivots, where it contributes less to the total effective mass seen by the cartridge. The arm itself is a light, slim, straight tube with a minimum of cartridge-mounting surface at its free end. It is pivoted on low-friction jewel bearings, and its rated effective mass of only 7.5 grams (without cartridge) is less than half that of most record-player arms.

Like the other Thorens record players, the TD 115C employs a belt-drive system. Its 2½-pound cast zinc-alloy platter is driven at either 33⅓ or 45 rpm by a d.c. servomotor whose speed is regulated by a seventy-two-pole tachometer generator. The TD 115C incorporates an "automatic pitch control" system intended to correct the motor speed for the effects of drag from a record-cleaning brush or similar accessory. From a block diagram of the motor drive circuit, it appears that this system monitors the motor current, senses the increased current when the motor is loaded more heavily, and increases the drive to maintain proper speed.

The speed of the electronically controlled motor can be varied over a nominal ± 6 per cent range by a vernier control. The tone arm, completely free in normal operation, has an optical velocity-trip mechanism that lifts it at the end of a record. The arm must be returned to its rest manually, and the motor must be shut off by the user. The entire turntable and arm system is floated from the main chassis (to which the motor is fastened) on four damped springs.

The TD 115C's controls are in the form of three flat rectangular plates along the top front surface. At the left is the combined power switch and speed selector (power is off

at the center setting; the plate is moved to the right or left for 33⅓- or 45-rpm operation). Next to it is a recessed speed-vernier control. The slotted edge of the platter is internally illuminated by a neon lamp to serve as a stroboscope for 33⅓-rpm operation. The removable 45-rpm center-spindle adapter has a ring of stroboscope marks for that speed.

At the right of the platter is a second plate that starts the motor when it is moved to either right or left. The two positions are similar except that the left one (M) is for completely manual operation, with the end-of-play arm lift disabled. The other (START UP) activates the arm-lift feature. The arm must be moved to the desired diameter manually and lowered to the record by hand or with the third control, the cueing device. This raises the arm when moved to the right and lowers it when moved to the left, both with a slow, damped action.

The tracking force of the arm is adjusted by rotating the counterweight on its threaded shaft after the arm and cartridge have been balanced. The force scale on the counterweight is calibrated in millinewtons (mN) instead of the more familiar grams, but 10 mN equals 1 gram so this poses no problem to the user. The skating compensation is applied through magnetic repulsion, adjusted by means of a ring around the base of the arm. It is calibrated in arbitrary units; the instruction manual recommends settings for different stylus shapes and tracking forces.

The TD 115C has a black base with a contrasting silver-color control panel along its upper front edge. The hinged plastic dust cover remains open at intermediate settings. With the cover lowered, the TD 115C is 17½ inches wide, 14¼ inches deep, and 5½ inches high. It weighs 15½ pounds. Price: \$450.

● **Laboratory Measurements.** We tested the Thorens TD 115C with a Shure M95ED cartridge installed. The setting-up procedure, though considerably simpler than the one for previous Thorens products, still took about an hour to complete.

The measured effective arm mass, referred to the stylus, was 8.5 grams. This confirms the Thorens rating within the limits of measurement error. The rather compliant M95ED stylus resonated at an ideal 11 Hz in this arm, with an amplitude of about 5 dB. The tracking force was within 0.1 gram of the indicated value at all settings. The tracking error of the arm was about as low as can be measured with our protractor—from 0.2 to 0.4 degree per inch over the surface of a 12-inch record. The absence of the usual reference line or head-shell edge required us to sight on the edge of the cartridge body for this measurement, and we found an almost constant 1-degree error in our readings. If this were subtracted as an installation or reading error, the net tracking error of the arm would be effectively zero for radii between 2.5 and 5 inches.

The capacitance to ground of the signal cables and arm wiring was 233.5 and 228.5 picofarads for the left and right channels, and the interchannel capacitance was 4.5 pF. The skating compensation was approximately correct when set according to the instruction manual, but in our test unit it caused the arm to drift outward excessively when the cueing lift was used (repeating about 15 to 20 seconds of the record each time the arm was raised and lowered). Elpa advised us that in a few samples that left the warehouse there was insufficient friction between the rubber-faced lift bar and the underside of the arm tube. This can be cured by roughening the lift-bar surface slightly with sandpaper.

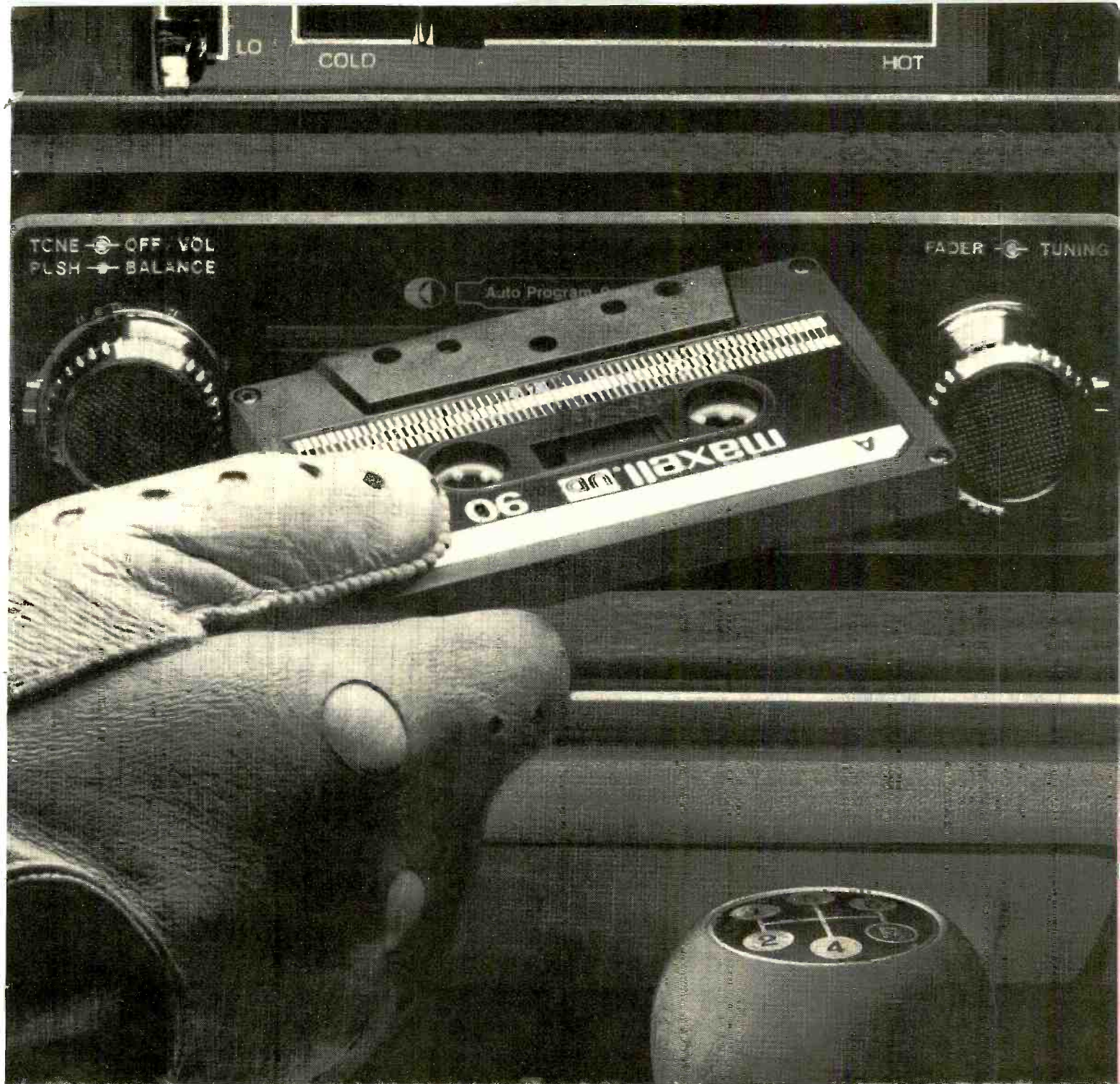
The turntable speeds could be varied over a range of +5.9 to -5.3 per cent at 33⅓ rpm and +8.2 to -7 per cent at 45 rpm. Varying the line voltage from 95 to 135 volts had no effect on turntable speed. The rumble was extremely low, -41 dB in an unweighted measurement and -64 dB with ARLL weighting (it occurred mostly between 5 and 10 Hz). Flutter was 0.05 per cent weighted rms (JIS) and ± 0.06 per cent weighted peak (DIN).

In spite of its rather soft isolation springs, the TD 115C was not as completely isolated from conducted vibration as some other belt-driven turntables we have tested. For example, the Thorens TD 126C, which uses a similar mounting system (but is much more massive) was the most thoroughly isolated record player we have ever measured, while the TD 115C is roughly on a par with a typical direct-drive turntable in this respect.

● **Comment.** The Thorens TD 115C brings many of the features and basic performance characteristics of the much more expensive TD 126C to a price range affordable by most audiophiles. Although the importance of low arm mass is well recognized, Thorens is one of the few manufacturers of integrated record players supplying arms whose masses are compatible with the high compliance of modern cartridges. The shifting of the arm resonance (with a popular cartridge such as the M95ED) from the usual 8 or 9 to 11 Hz is dramatic evidence of the benefits of a low-mass arm (which will track warped records far better than the usual record-player arm using the same cartridge).

The unweighted rumble of the TD 115C was lower than that of any direct-drive turntable presently on the market, so far as we know. This does not necessarily mean that its rumble will be audibly lower (it is already below the

(Continued on page 62)



Soup up your car stereo.

You don't have to be an auto mechanic to boost the performance of your car stereo.

You don't even have to be mechanically inclined.

All you have to do is replace a small, but important part of your

cassette deck. Your cassette tape.

And there's nothing that can do the job better than Maxell.

Every type of Maxell tape is designed to give you the widest frequency response, the highest

possible signal-to-noise ratio and virtually no distortion.

So if you want better mileage from your car stereo, just fill it up with premium.



maxell



CIRCLE NO. 26 ON READER SERVICE CARD

Maxell Corporation of America, 60 Oxford Drive, Moonachie, N.J. 07074

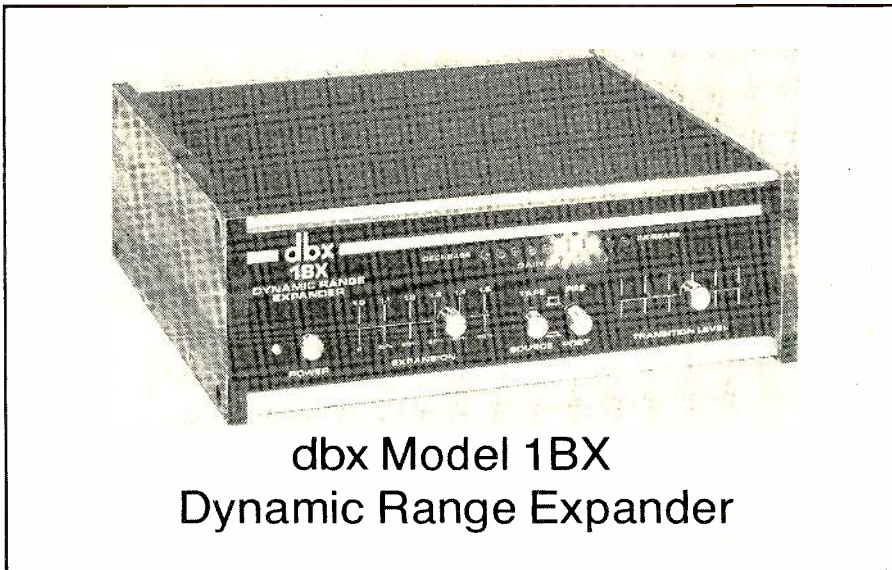
hearing threshold), but it does mean that any woofer-cone flutter (and resulting intermodulation effects) will be reduced compared with that of some other turntable with a worse *unweighted* rumble level.

Although we still found cartridge installa-

tion to be a critical and not very enjoyable experience with the TD 115C, we are more than happy to accept this one-time annoyance in return for the extended period of superior record playing that it gives. Thorens continues to show by the performance of their products

that, with respect to rumble and flutter, a good belt-driven turntable can equal or outperform some of the best of the direct-drive turntables.

Circle 143 on reader service card



dbx Model 1BX
Dynamic Range Expander

THE dbx Model 1BX is a single-band device incorporating several novel circuit techniques that permit dynamic-range expansion to be carried out without audible side effects. It is meant to be inserted into the signal path of an amplifier or receiver through its tape-monitoring circuit, and it has its own tape-recording inputs and outputs to replace those of the main amplifier.

The dbx Model 1BX has two major operating controls, both horizontal sliders. The **EXPANSION** control, calibrated from 1.0 to 1.5, varies the slope of the output/input characteristic of the unit. When it is set to 1.0 (no expansion), a 10-dB change of input level produces a 10-dB change at the output. At the other extreme (1.5), a 10-dB input change (either up or down in level) results in a 15-dB change at the output. At intermediate settings, the indicated relationship exists between input and output signal variations.

Unlike some other expander designs, the dbx unit has a constant slope for all signal levels. There is no distinct threshold above which expansion takes place, and the continuous nature of its action helps to make it undetectable. A second slider, marked **TRANSITION LEVEL**, adjusts the operating range of the Model 1BX to fall within the range of input signal levels. The operation of the expander is shown at all times by a row of ten LED's across the top of its panel. The five at the left are yellow and indicate that the gain of the unit is less than unity; those at the right are red and indicate a gain greater than unity. In normal operation, the **TRANSITION LEVEL** slider control is set so that the lights around

the center of the display glow at average program levels, with peaks lighting the red LED's and the yellow ones coming on during quiet passages or pauses.

There are pushbuttons for **POWER** and **TAPE/SOURCE** selection (the latter replacing the function of the amplifier's tape-monitoring switch, which must be set to **TAPE** when using the expander). Another button, marked **PRE/POST**, enables the expander action to be applied to a signal before it goes to a tape recorder (**PRE**), or to the playback signal from the recorder (**POST**). The **PRE** type of operation must be used with care to avoid exceeding the dynamic range of the recorder (especially a cassette deck), although it can provide some noise reduction if used in moderation.

On the rear of the Model 1BX, in addition to the various signal input and output facilities, there is a jack marked **QUAD COUPLER**. In stereo operation, both signal channels are controlled by the same circuits, which sense the levels of both input channels, to prevent lateral shifts of the stereo image. If two Model 1BX units are to be used to control the amplifiers of a quadraphonic system, they can be joined electrically through their **QUAD COUPLER** jacks. This allows all four channels to be controlled by a single common voltage, derived from the four inputs. The dbx Model 1BX is 11 inches wide, 3¾ inches high, and 10¼ inches deep including its wooden side panels. It weighs 4½ pounds. Price: \$245.

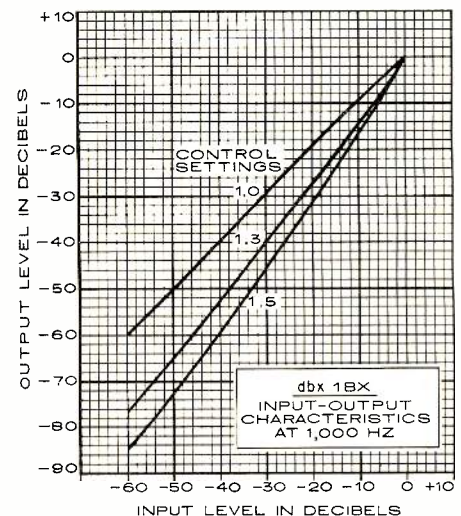
● **Laboratory Measurements.** The design of a successful dynamic-range expander (the dbx Model 1BX is *highly* successful) involves

some very careful attention to the attack and release time constants of the detectors and control circuits as well as the selection of the frequency-weighting characteristics that affect the sensing portion of the device. We cannot go into much detail here on that subject, but information released by dbx leads us to conclude that they have done their psychoacoustic homework very thoroughly, and the performance of the Model 1BX confirms that conclusion.

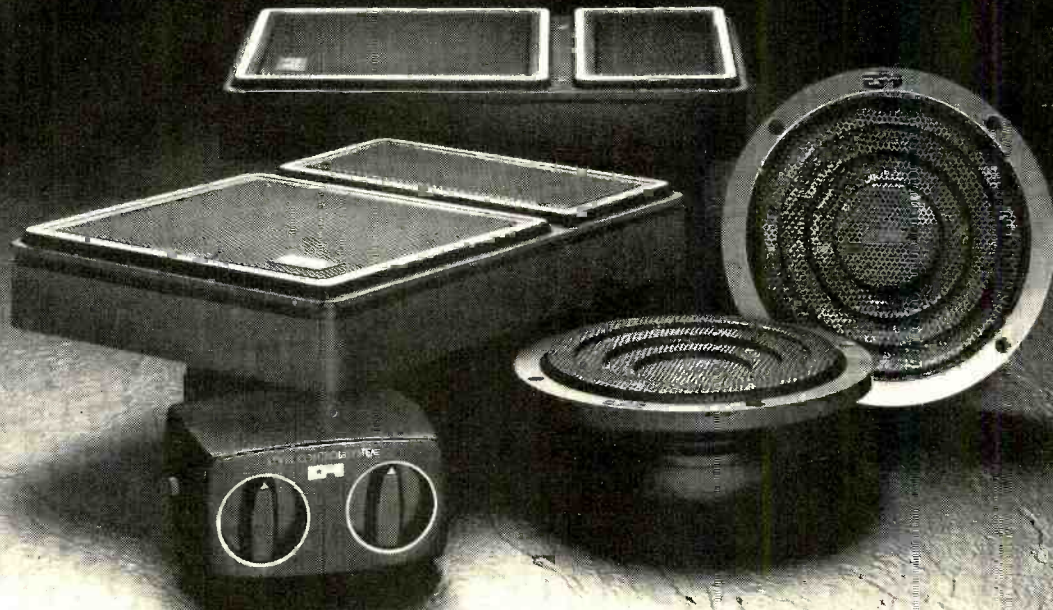
As with most dynamic signal processors, the operation of the dbx Model 1BX depends in great measure on the program material, and it is not easily measured by conventional test methods. We had to limit ourselves to routine measurements of frequency response, distortion, and transfer characteristics using sine-wave signals. The only variable at our disposal was the **EXPANSION** control, and we measured distortion and frequency response at both limits of its range.

The rated maximum output of the Model 1BX is 6 volts (it clipped at 6.8 volts when driving a standard IHF load of 10,000 ohms and 1,000 picofarads at 1,000 Hz). Although this is a far higher level than the unit will ever deliver in operation, the distortion at 6 volts was a mere 0.07 per cent at 1,000 Hz for any setting of the **EXPANSION** control. At 20 Hz there is necessarily some compromise between the need for a fast response time and the period of the signal, and the distortion was 0.28 per cent with no expansion and 0.71 per cent at full expansion. At 20,000 Hz the distortion was only 0.05 per cent with no expansion and increased to 0.22 per cent at max-

(Continued on page 64)



WHY A LIVING ROOM CAN SOUND GREAT WITH JUST TWO SPEAKERS YET YOUR CAR REALLY OUGHT TO HAVE FOUR.



Basically, because very few living rooms have 326 cubic inch engines. Factors such as road surface, tires and an engine running at high speeds can cause the noise level in a car to reach 60-80 decibels.

Driving one pair of speakers louder and louder is not the way to overcome this problem; this would just strain even the best car amplifiers as well as most other brands of speakers.

Rather, what's needed is another source of sound to relieve some of the burden

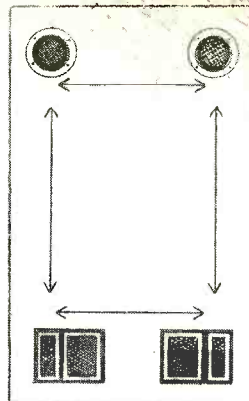
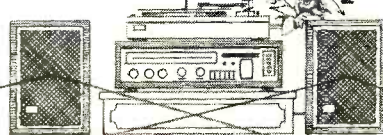
were designed to match the rear deck installation of LS70's (a car speaker that spec for spec is almost identical to our much acclaimed EPI Model 70 home speaker) or any other high-quality speaker.

What's more, the use of ferro fluidics in the LS35's provides them with a high power handling capability which also results in significantly lower driver and system distortion.

EPI LEVEL CONTROL SYSTEM

Traditionally, another problem confronts car stereo systems whenever there are listeners in the back as well as the front seat: The optimum volume level for those in the front would simply overpower people in the back because of their proximity

We patterned the LS70 after the much acclaimed EPI 70.



The LCS balances sound side to side, and front to back.

to the rear speakers.

The LCS (Level Control System), however, can alleviate this problem. It allows you to balance sound, not only from side to side, but from front to back as well. And unlike conventional "fading" mechanisms, it is capable of exceptionally high power handling: up to 60 RMS per

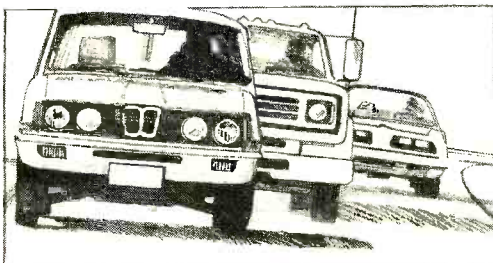
channel of music. Furthermore, it's compatible with all automotive amplifiers.

The LS70's, the LS35's and the Level Control System. A totally integrated set of components from EPI that can make the song of the open road sound like you've never heard it before.



THE FIRST CAR SPEAKER SYSTEM THAT YOU CAN FEEL RIGHT AT HOME WITH.

CIRCLE NO. 56 ON READER SERVICE CARD



"Road noise" can reach as high as 60-80 db. placed on the main speakers and lower the overall system distortion.

The LS35's were developed to perform just this function. They

imum. Such distortion figures are completely negligible at those frequencies.

The input-output slopes were essentially as rated, as confirmed by our measurements over an input range of 60 dB. The transition between a gain reduction and a gain increase (the point where the LED's change from yellow to red) required an input of 65 millivolts at full sensitivity, and any higher level could be accommodated by a lower setting of the TRANSITION LEVEL slider. The output noise of the Model 1BX was unmeasurable, being less than 100 microvolts, or 80 dB below 1 volt, in an unweighted measurement. The frequency response of the Model 1BX depended somewhat on the expansion setting. With no expansion, it was down no more than 0.4 dB at 20 or 20,000 Hz relative to the 1,000-Hz level. With full expansion, the output dropped 0.6 dB at 20 Hz and 1.6 dB at 20,000 Hz.

● **Comment.** We present these test figures only to illustrate the operation of the dbx Model 1BX on sine-wave signals—one would certainly not buy it for that purpose. We did considerable listening with the 1BX using a variety of tapes, records, and FM broadcasts. Having used expanders before (including some of the dbx units that can operate as compressors or expanders), we had a pretty good idea of what to expect from the Model 1BX and what to watch out for. Nevertheless, there were pleasant surprises in store for us.

This is, first of all, a very *easy* unit to use, in the sense that it is very difficult to make it sound bad or even to detect its action in nor-

mal operation. One will only rarely use the full expansion, since it is more than is required by most recorded music.

An expander such as this is, by its very nature, an effective noise reducer. If the threshold is set so that moderately loud passages light only a couple of the red LED's, during soft passages or pauses the yellow lights will come on, signifying a substantial drop in gain. When this happens, the background noise often drops to inaudibility, even on "hissy" stereo FM broadcasts. The Model 1BX was remarkably free of the modulation effects that plague so many expanders and noise reducers by causing noise to be audible in bursts when the program level increases suddenly. In fact, we were hardly ever able to hear the side effects of the expansion, even when listening to piano solos, which are especially revealing of dynamic-range anomalies. We were also pleased that we could detect no audible chopping off of the reverberant "tails" in the program caused by the low-level expansion.

A basic fact of life with dynamic-range expanders operated from the program material itself is that their benefits are in direct proportion to the dynamic range of the original program and in inverse proportion to its noise level. Rock music or compressed speech, such as is the norm on most FM stations in our area, have a dynamic range of perhaps 10 dB or less. Expanding this to 15 dB with the Model 1BX obviously does little for the naturalism of the sound.

On the other hand, a really good record or FM program with fairly good dynamics and

little or no inherent compression can be made appreciably better by the Model 1BX. Watching the LED's fluctuate tells the user that the unit is at work, even though the subtlety of its action and the freedom from side effects may prevent the expansion from being sonically obvious. Bypassing the Model 1BX with the monitor switch of the amplifier should convince the listener that the Model 1BX is really doing its job!

If the background noise level (hiss or hum) is high, one can hardly avoid hearing it change as the channel gain is varied by the control circuits. Sometimes it may be preferable to use little or no expansion when the background hiss is clearly audible in the original program, especially if the music is from a solo instrument whose effect on the noise will be most audible. On the other hand, a faint, barely audible hiss such as that from a good record or a fully quieting FM broadcast can often be totally eliminated by the Model 1BX.

In our view, the dbx Model 1BX is thoroughly satisfactory, certainly the best single-band expander we have had the opportunity to test and use. Two- and three-band versions of this unit, at correspondingly higher prices, are also made. We have not heard them, but there are obvious advantages in having the expansion in each part of the audio-frequency range controlled by the signals present in that range rather than by the total program. Still, the Model 1BX represents excellent value for the dollar.

Circle 144 on reader service card

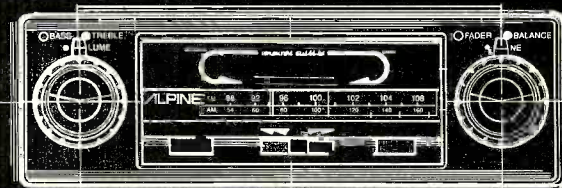
Until now, you had to buy a Lamborghini to hear an Alpine car audio.

Introducing Alpine: the car audio that Lamborghini selected to be standard equipment on their \$85,000 sports machine.

Alpine offers one of the biggest selections of features, and combinations of features, available on in-dash car audio. Features like memory logic electronics, music sensor, Dolby® key-off eject, cassette glide, loudness contour and a CrO₂-FeCr switch.

These systems also offer high power—20 watts-per-channel RMS—along with low distortion and unbelievably low wow and flutter (.09% on many models).

Consult your Alpine dealer for professional planning to suit your particular needs. Alpine: We're new, and everything we do is new. Alpine Electronics of America, Inc.



Shown

the European model Alpine car audio system that is standard equipment on every Lamborghini sold.

ALPINE

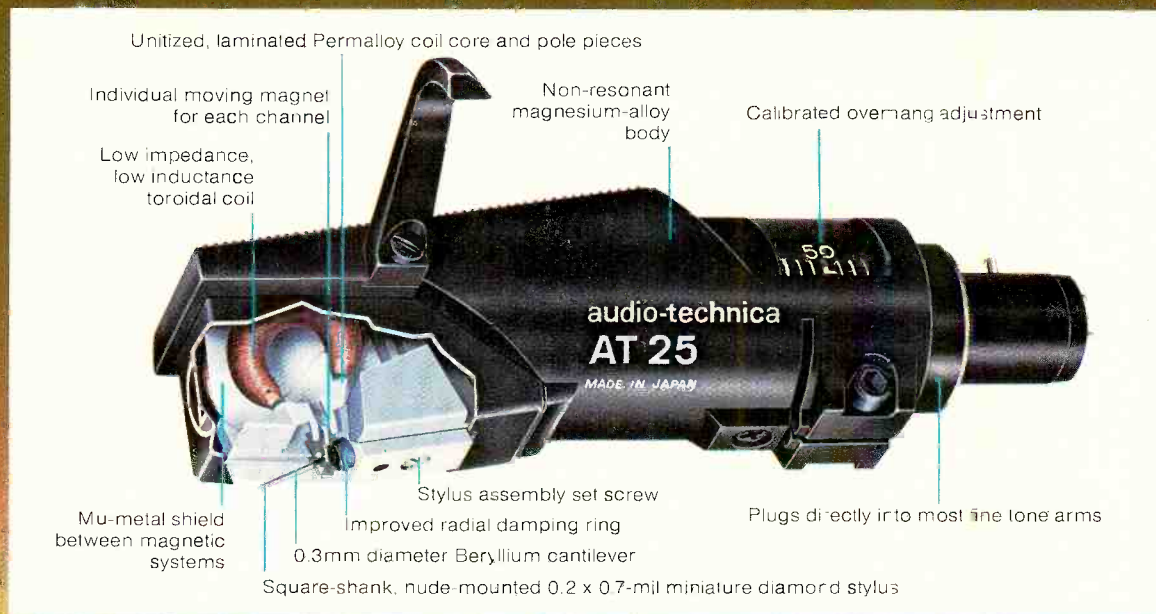
Alpine Electronics of America, Inc.

3102 Kashiwa Street, Torrance, CA 90505 (213) 326-8000

Dolby is a registered trademark of Dolby Laboratories, Inc.

CIRCLE NO. 2 ON READER SERVICE CARD

We've just improved every record you own.



Bold, creative new technology sets new standards for clarity, dynamic range, and stereo separation.

Of course the new AT25 doesn't look like other stereo phono cartridges. It's entirely different. And not just on the outside. We've rethought every detail of design and construction. All in the interest of the smoothest, cleanest sound you've ever heard. The AT25 frequency response is utterly uniform. Definition and stereo separation are remarkable. Dynamic range is awesome. Even the most demanding digital and direct-to-disc records are more spectacular, more musically revealing.

But set our claims aside and listen. The AT25 is unexcelled for transparency and clean, effortless transient response. Individual instruments are heard crisply, without stridency even at extremely high levels. Even surface noise is less apparent.

The cutaway view shows you how we do it. Start with the coils. Just two, hand-wound in a toroidal (doughnut) shape. A unique shape which cuts losses, reduces inductance, and lowers impedance. The coils are wound on laminated one-piece cores which also serve as pole pieces. Again, losses are lower. Eddy current effect is also reduced. Which all adds up to superior transient response. It's like having the electrical performance of the finest moving coil designs, but with the high output of a moving

magnet. The best of both worlds!

Each magnetic system is completely independent. No common circuits. We even add a mu-metal shield between the coils to insure no leakage between channels. Which results in stereo separation which must be heard to be believed.

But there's more. An entirely new stylus assembly with one of the smallest whole diamond styli in series production. Only 0.09mm in cross section and almost invisible. It's nude-mounted and square-shank to insure exact alignment with the groove. And it's set in a Beryllium cantilever that eliminates flexing.

Instead of snapping into place, this stylus assembly is held rigidly to a precisely machined surface with a small set screw. A small detail which insures perfect alignment, no spurious resonances, and simple stylus replacement.

We treat cartridge shell resonances too, with special damping material applied to the top of the unique plug-in shell. The magnesium shell even has a calibrated adjustment for stylus overhang to insure perfect installation.

The many technical differences between the new AT25 and every other stereo cartridge are fascinating... and significant. But the real difference is in the resulting sound. It's almost as if you had plugged your stereo system directly

into the studio console. Every subtlety of artistic expression is intact, no matter how complex—or simple—the music, no matter how loud—or soft—the performance. It's as though a subtle barrier had been removed adding clarity and presence to every record you own.

A cartridge of this sophistication and high quality cannot be produced quickly. Initially the AT25 may be in short supply. But your patience will be rewarded with performance which will send you back through your record library to discover nuances you never suspected to hear. And you'll eagerly await the sonic splendors of tomorrow's digital recording techniques.

This outstanding performance is now available two ways: the direct plug-in AT25 and the standard-mount AT24. Either one will make every other component you own sound better, including your records!



Model AT25 Unitized Headshell/Dual Magnet™ Stereo Phono Cartridge \$275

Model AT24 Dual Magnet™ Stereo Phono Cartridge \$250



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CIRCLE NO. 4 ON READER SERVICE CARD

The Pop Beat

By Paulette Weiss



CRIME AND PUNISHMENT

I WAS at home, half asleep, when the call came. "Would you be interested in covering the Rolling Stones concert in Toronto?" asked Stu Ginsburg, Atlantic Records' director of national publicity. My mouth obligingly told him "Yes" before my mind got around to asking "Rolling Stones concert? What Rolling Stones concert?"

The concert in question wasn't what could properly be called a Rolling Stones show; it was one of two charity performances required of Stones guitarist Keith Richards to fulfill the terms of his sentence for a 1976 drug bust. In June of that year, the band had been in Toronto for an appearance at El Mocambo, their first stint at a small club in fifteen years. During their stay, Canadian authorities found drugs in Keith's hotel room. He was arrested and charged with trafficking in heroin. After much publicity and behind-the-scenes legal maneuvering, Keith pleaded guilty on October 24, 1978, to the lesser charge of possession of twenty-two grams of heroin. The sentence imposed by Canadian trial judge Lloyd Graburn was worthy of a *Partridge Family* sitcom episode: the offender received one year's probation and was required to give two concerts to benefit the Canadian National Institute for the Blind in Toronto, the scene of his arrest.

The light sentence outraged many Canadians, and at the time of this writing Federal Crown Prosecutor John Scollin was racing a May 31 deadline to appeal the sentence, concert or no, and get Keith thrown into the slammer for two years. Joining the ranks of the indignant were large numbers of the blind who were to benefit from Judge Graburn's controversial decision. They took to the streets in protest, angered by the implied linking of their affliction with that of drug addicts.

Despite all such objections, and although the outcome of Keith's sentence was not entirely clear, the two concerts were held as planned on April 22 at the Oshawa Civic Center just outside Toronto. The performances were scheduled at the last possible moment to conform with a six-month limit imposed by Judge Graburn, and so the telephone call from Atlantic, confirming my invitation only four days before the concert, understandably found me unpacked.

I flew up just hours before to attend the second of the shows that Sunday. Shows? They were much more than mere shows. They were Events. Canadian newspapers carried front-page stories daily for weeks before April 22. There were many rumors about the possible appearance of such surprise guest artists as Ringo Starr. Kids had hitchhiked up from

Florida to be there. The competition for tickets was fierce. The Oshawa Civic Center, a hockey rink hastily converted into an auditorium, held a mere 4,500 per concert, and thirteen hundred of these seats had been earmarked for members of the CNIB, who received free tickets. Scalpers' rates went as high as \$300 each. In one case things got ugly; four men in a car stole a young man's tickets and then tried to run over him.

DESPITE all the pre- and post-liminary brouhaha, the concert, I'm delighted to report, was not just a news event but was memorable musically. Almost two hours of nonstop, foot-stomping, high-decibel rock came rolling off the stage, most of it bearing the unmistakable Stones brand. It wasn't, of course, strictly a Rolling Stones concert. The first half of the show was performed by the New Barbarians, a band that includes a couple of Stones members and other musicians. It consists of Keith and Ron Wood on guitars, Ian McLagan (ex-Faces) on keyboards, jazz artist Stanley Clark on bass, Ziggy Modeliste of the Meters on drums, and Bobby Keyes on sax.

The Barbarians romped through eight tunes, including Keith's drug-bust theme song *Before They Make Me Run*, Chuck Berry's *Sweet Little Rock 'n' Roller*, and several songs from Ron Wood's latest solo album, "Gimme Some Neck" (see review on page 119). The New Barbarians became Wood's band immediately after the Toronto date, supporting him on a promotional tour for his new disc. Even the poor sound system, which delivered volume without clarity and vocals miked far too low, could not seriously obscure the high quality of the performance. The warm musical rapport between Richards and Wood has never been more evident. Their incisive guitar lines fed and supported each other in a way that was mocked by their sloppy, easygoing vocals. Also evident was Richards' regained vivacity, obvious in his bounding entrance and stage moves and in the energy he channeled into his instrument. Perhaps Keith has Judge Graburn to thank for his renewed vigor, for the rock star's suspended sentence was contingent on his entering a drug rehabilitation program as well as presenting the benefit concerts.

MICK JAGGER's entrance began the second half of the concert. Anyone still sitting at that point leapt up to join the others standing on their seats and packing the aisles, straining to see Mick strut his stuff. And strut he did, supported by the full Rolling Stones complement. He cavorted, grimaced, and sprang, monkey-like, onto an amp. His vocals were strong and assured through nine songs, the majority of them drawn from "Some Girls." The rocking, churning finale was a *Jumping Jack Flash* that left the crowd roaring its appreciation. This was the kind of powerful yet loose performance I had expected of the Stones' big tour last summer, and I didn't much mind having to wait until this spring to get it.

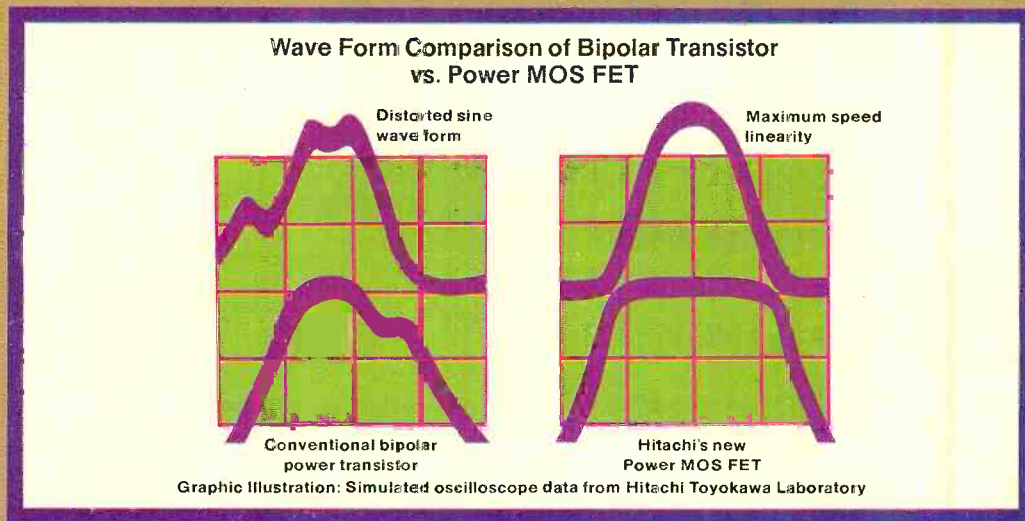
There's an ironic ending to this little saga of crime and punishment. Everything went well. There was none of the expected violence at the shows, Keith fulfilled all the terms of his sentence, and the two concerts were box-office sell-outs. Nevertheless, the Canadian National Institute for the Blind seems to have lost about \$10,000 on the deal. Sometimes, no matter what you do, you just can't get no satisfaction. □

MICK JAGGER, RON WOOD, AND KEITH RICHARDS: a trio grows in Toronto



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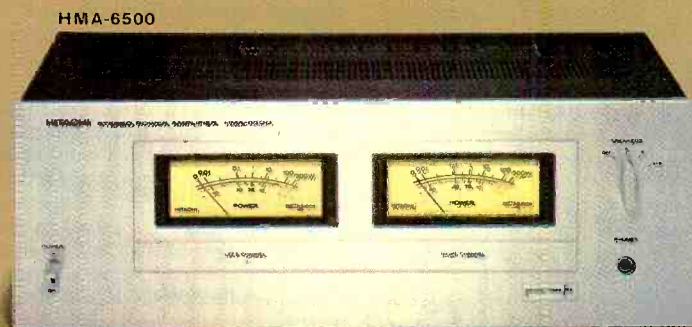
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CIRCLE NO. 18 ON READER SERVICE CARD

Going on Record

By James Goodfriend



THE HERE AND NOW SCENE

ANYONE who reads this column with any degree of frequency knows that contemporary American music is not the area of my greatest interest or expertise. I was therefore just a bit thunderstruck to find myself invited to be on a panel of judges whose task it was to choose contemporary American music for radio broadcast throughout the world. I was so thunderstruck that I accepted, and I think that those whose absorption in the subject is about equal to what mine was might like to know what came out of it.

The selection of music was to be made for the International Rostrum of Composers for presentation at the UNESCO meeting in Paris in May of this year. The sponsorship is that of the International Music Council of UNESCO. Forty countries participate in this, each making a selection of its own contemporary music, and the taped selections are then circulated for broadcast in each of those forty countries, so the exposure for a chosen piece of music is considerable. Last year there were more than seven hundred broadcasts of seventy-five different works.

Although there has been American representation in the past, 1979 marks the first year of official participation by National Public Radio. The selection process here was administered by the American Music Center, under the direction of a very competent and charming lady (and my neighbor), Margaret Jory. Given all this, you can see that I could hardly refuse to participate. The panel included three composers, three performers, and one critic (me). There was supposed to be another critic too, but he finked out.

Material was submitted by the composers themselves, publishers, record companies, and well-meaning friends and relatives. We listened to 187 tapes, cassettes, and records in the literally impossible effort to select thirty-five minutes of music that would best represent the United States. I say that we listened, but that is not altogether accurate. Not everybody heard every piece, though somebody did. And not everybody *listened* all the time; sometimes we just sort of "overheard," and sometimes we took the tape (or disc) off long before the end. There were many sighs and many dark mutterings. We listened where we could: at the center, at home, at a musical neighbor's house, at the office. And when we

all got together finally to choose the pieces that were going to go, the most astonishing thing was just how much agreement there was amongst us.

Not that we were without dispute or even rancor ("Will you *please* tell me what it is you hear in that piece?"), but it was rare that a work had only one advocate. Several pieces had three on the very first round of nominations, and one had four (it won). This was enlightening in a number of ways. First of all, it showed that these competitions aren't always won by somebody's friend (I didn't know any of them). Second, it showed that even in a field as heterogeneous as contemporary music, there seem to be some unspoken but almost agreed-upon standards. Third, it showed that there is music being written these days that you can like. I am not trying to be patronizing about this. The gulf between most composers and most listeners today is so broad and so deep that *any* sort of contact between the two should be welcomed by both. I say only that, somewhat to my surprise, I liked some of the music I heard very much, and I think that others might like some of it too. If that be patronizing, well, make the most of it.

At this point I hope that no one has been holding his breath waiting for me to announce the winners. They will have been announced, long before this appears, in the newspapers

JONATHAN D. KRAMER



Eugene Cook

and elsewhere. But just in case you missed the news, the jury selected two pieces: Roger Reynolds' *Fiery Wind*, for orchestra, and Frederic Rzewski's *Song and Dance*, written for four virtuoso members of the chamber group Speculum Musicae. The latter is a spectacular, jazzy piece that goes from one lovable moment to another. It is by no means conservative, but it is, I swear, as listenable as Beethoven. It was the one that got four votes the first time around, and I liked it a lot. Reynolds' *Fiery Wind*, on the other hand, I find too difficult to describe. I liked it a good deal also, but it was not among my first favorites. Significantly, both compositions were the beneficiaries of stunning performances.

You will be able to hear both of these pieces on National Public Radio. Unfortunately, you cannot, at this time at least, hear them on records, for neither is commercially available (the Rzewski *will* be released on Nonesuch). There are, however, other pieces by both composers in the current catalog, and you might sample Reynolds' *Quick Are the Mouths of Earth* (Nonesuch 71219) and Rzewski's *The People United Will Never Be Defeated* (Vanguard 71248).

SINCE this is, after all, *my* column, I'm going to use the rest of it to tell you of the music I liked (and please remember, composers, I didn't get to hear it all). The two pieces I liked best were Ivan Tcherepnin's *Five Songs* for voice and electronics and Jonathan Kramer's *Renascence* for clarinet, tape-delay system, and prerecorded tape, written in 1979 and 1974, respectively. Both use some very conservative basic musical materials and some highly sophisticated, up-to-the-minute means of manipulating them. Kramer's work is built on jazz-like riffs, stated, rerecorded, and played back some 20 seconds later while the live clarinet goes on to other things (which are also rerecorded along with some of the previous recorded material). Other prerecorded tape loops are subsequently brought into the fray until a texture is built up that sounds like three thousand clarinets coming at you from all points in time and space—or, as a friend commented, like a calliope gone mad. I found it marvelous. Though it does not seem to be listed in Schwann, the record containing this little gem is available: Grenadilla GS 1017.

Tcherepnin (he's the son of Alexander Tcherepnin) has euphemistically entitled his work "songs," but they are really electronic manipulations of vocal (and other) sounds. The mode is essentially repetitive-hypnotic (the first song, *Do-Mi*, is 90 per cent the same minor third with variations), and the work could be numbingly dull except that it is so elegantly artistic and brilliantly calculated in the way it manipulates the listener's attention. What a switch from only a few years ago—music of which the hearer is an integral part! Sadly, the *Five Songs* are not on disc.

I also liked (for different reasons in each case) Raoul Pleskow's *Fantasia sopra Ave Regina Coelorum*, Anthony Iannaccone's *Rituals* for violin and piano (Coronet 3038), Martin Boykan's *String Quartet No. 2* (CRI S-401), Arnold Rosner's *String Quartet No. 4*, Ann Silsbee's *Spirals* for orchestra, Karl Korte's *Concerto for Piano and Winds* (Turnabout 34704), and Claus Adams' *String Quartet*. There were lots of pieces I hated, but you don't want to hear about those. That's the sort of talk about contemporary music you can hear any time. □

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STEREO REVIEW'S SELECTION OF RECORDINGS OF SPECIAL MERIT BEST OF THE MONTH



Art Garfunkel: Ballad Singing with a Conspiratorial Wink

THERE are some few performers whose work one almost automatically likes and respects. For instance, I've always liked Art Garfunkel's direct, unpretentious performing manner, and the sly wit I find mixed with a resolute integrity in his recordings inspires respect. I've found him from the first to be much more believable, somehow, both as a person and as a performer, than his one-time partner Paul Simon, and his solo career since the two split up has only reaffirmed that impression. These ruminations are inspired, of course, by Columbia's recent release of Garfunkel's new "Fate for Breakfast" (with its wry afterthought "Doubt for Dessert" on the back cover). It is, of all the weirdly unfashionable things to be these days, an album of ballads . . . sort of.

Not ballads if you're thinking along the lines of Eric Carmen grandiosity, or the even more grandiose exhalations of, say, Gino Vanelli, but ballads à la Art Garfunkel—which means that the material is first of all carefully selected and then filtered through a distorting lens to produce a slight, but definite, sense of detachment. He sings, for example, in what sounds like a leased contralto, apparently as close to fashionable falsetto as he cares to come, but close enough to suggest a non-serious "classiness" that is excused by a quick, conspiratorial wink. There's also enough cute harmony overdubbing to do credit to one of those teenage male starlets whose number is up the minute he has to start shaving more than his upper lip. Happily, this unpointed satire in no way interferes with the fact that this is still a dynamite album of popular music, and it can be en-

joyed as such without listening for resonances on other levels. Perhaps I can best give you the flavor of the enterprise when I say that Garfunkel's repertoire and performances here relate in a touching way to the flip side of the characters in a Billy Joel song. This is

"He sings in what sounds like a leased contralto, apparently as close to a fashionable falsetto as he cares to come, but close enough to suggest a non-serious 'classiness' . . ."

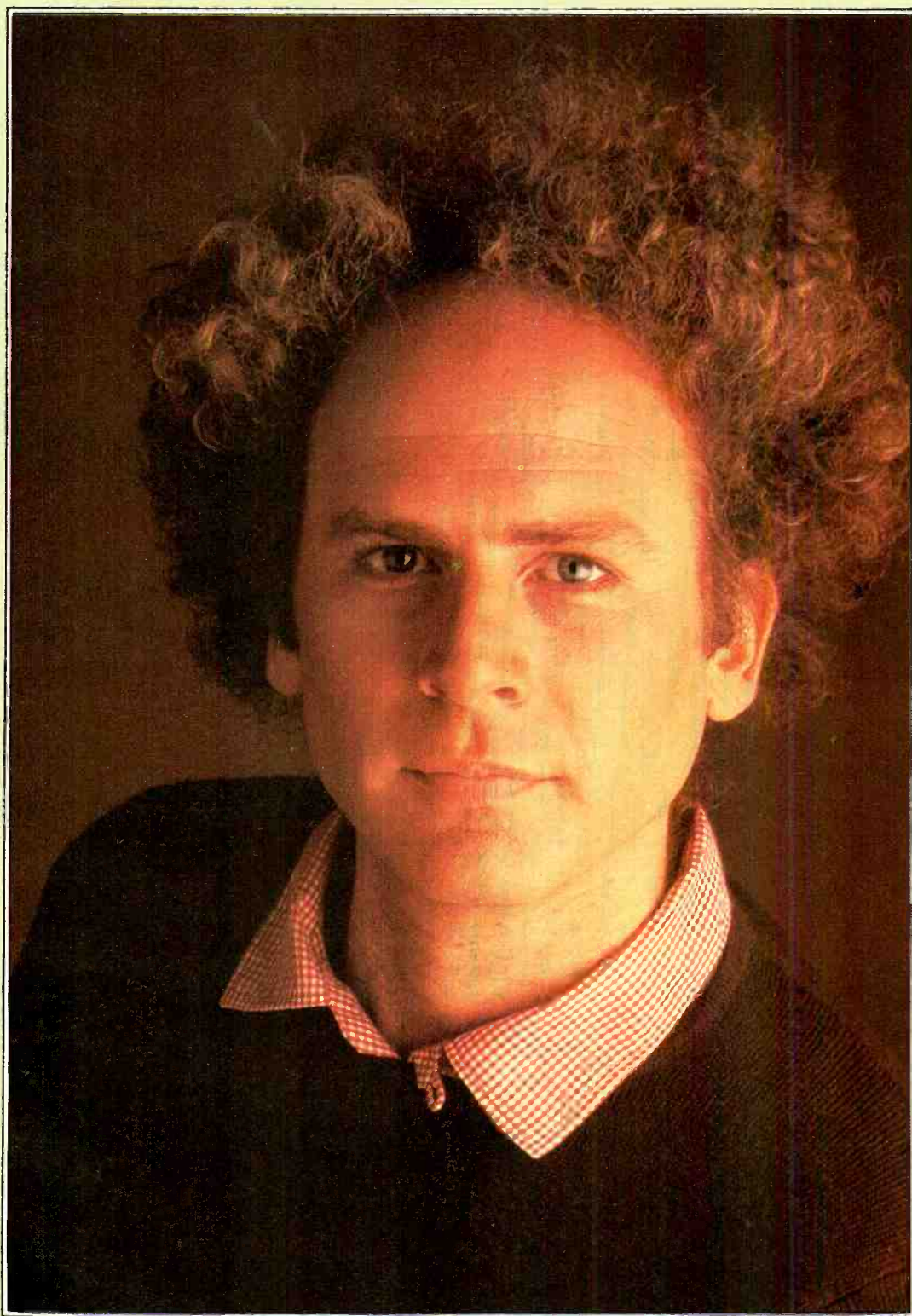
precisely the kind of music they would listen to, savor, and robustly and unselfconsciously identify with, the style they would like to aspire to. And no doubt I should add that that observation is not intended as any kind of condescension, for this is a legitimate musical style and those are legitimate aspirations.

A lot of credit must go here to the sympathetic production Louie Shelton has provided. It is as smooth as yogurt and as sharp as Tabasco. When the going gets Dramatic, as it frequently does in such things as *Beyond the Tears* and

When Someone Doesn't Want You, the arrangements, with their swooping, heavy-beat keyboards and acoustic guitars, let you know that Serious Business is unmistakably afoot. When it turns Inspirational, as in *Sail on a Rainbow*, the charts are as creamily homogenized as the Philadelphia string section.

"Fate for Breakfast" is entertaining, enjoyable fun on several levels. Garfunkel doesn't patronize his material; he merely pokes some gentle, affectionate fun at our sentimental weaknesses, at the same time paying super-professional homage to the pop-music genre itself. The newest godawful trend that seems to be popping up as more and more "serious" pop performers are pushed kicking and screaming into punk or disco is the suffocating *auteur* theory (borrowed from "film" critics), which holds that what counts is not the performer but the production, not the cook but the kitchen. Garfunkel neatly disproves the theory here, placing the emphasis squarely where it belongs—on the performer. Enjoy this album the way you enjoyed the movie *Superman*, the book *The World According to Garp*, the musical *Annie*. or, if you prefer, the way Anthony from *Anthony's Song* would. He'd find it "Heavy, man, heavy!" So will you. —Peter Reilly

ART GARFUNKEL: *Fate for Breakfast*. Art Garfunkel (vocals); orchestra. In *A Little While (I'll Be on My Way)*; *Since I Don't Have You*; *And I Know*; *Sail on a Rainbow*; *Miss You Nights*; *Finally Found a Reason*; *Beyond the Tears*; *Oh How Happy*; *When Someone Doesn't Want You*; *Take Me Away*. COLUMBIA JC 35780 \$7.98, © JCA 35780 \$7.98, © JCT 35780 \$7.98.



Art Garfunkel
(CBS Records)

The Roche Sisters: Sexy, Funny, and Cerebral Without Being Intellectual

FROM deepest New Jersey come Maggie, Terre, and Suzzy Roche with "The Roches," an album on the Warner Bros. label that sounds as if its origins were even more exotic than that—inner space, say. It sounds radically different from most other albums, its oddball nature extending well beyond the eerie vocal harmonies and the surprisingly childlike quality of the melodies. It suggests that the Roches are genuinely *bent* and are promulgating, among other things, non-specific satire, various attitude fresheners, and a use of the popular song that's cerebral without being "intellectual." Better still, they're sexy and funny and prettier than the springtime in a Salem ad.

Their humor doesn't seem—at least on the surface—to be at the expense of anybody in particular, but then you realize that you, the listener, can supply the body, stretching the language to fit a specific butt for whatever the joke might be. In *Pretty and High*, for example, which Maggie wrote in 1971, I tend to see Joni Mitchell being satirized—realizing all the while, however, that the song doesn't *have* to be taken as satire at all. And so they go: seemingly simple lyrics with enough space in them to accommodate your own constructions, and melodies that are generally cunning and subtle. They may

DANIEL BARENBOIM: *fresh and deep*



Barbara/Deutsche Grammophon



MAGGIE, TERRE, AND SUZZY ROCHE: *structures and kinks*

seem at first almost tuneless, or remind you of a child's meandering in search of a tune, but on the second or third hearing you'll realize that the song does indeed have a structure and that the structure has some interesting kinks in it. We aren't used to seeing a buttress *there*, or a bridge *there*, and so on. Similarly, the harmonies are unpredictable, sometimes angelic and sometimes grating—even cutting occasionally, as if someone isn't singing a harmony part quite by the book. The songs, whether they anticipate missing health food and strawberry-apricot pie while visiting Ireland or muse on the married men the writer has known, are served well by such strangeness.

And some of them, notably *Hammond Song* and *Quitting Time*, both by Maggie and both about moving on to the next place and phase, are even better than they are strange. Only *Damned Old Dog* (also by Maggie) seems to exist mostly for the sake of cleverness. As solo singers, the Roches aren't particularly remarkable, but then not much solo singing is done here. The harmonies are backed with a fairly skimpy production by Robert Fripp, who calls his approach "*audio verité*." There are a lot of tongues in a lot of cheeks on this one, in addition to some laughs and a lot of music. These Roches can stone your mind.

—Noel Coppage

THE ROCHEs. Suzzy Roche (vocals, guitar); Maggie Roche (vocals, guitar, synthesizer); Terre Roche (vocals, guitar); Robert

Fripp (guitar); Tony Levin (bass); other musicians. *We*; *Hammond Song*; *Mr. Sellack*; *Damned Old Dog*; *The Troubles*; *The Train*; *The Married Men*; *Runs in the Family*; *Quitting Time*; *Pretty and High*. WARNER BROS. BSK 3298 \$7.98, © M8 3298 \$7.98, © M5 3298 \$7.98.

Daniel Barenboim Offers a Large-scale View of the Schubert Impromptus

THOUGH Daniel Barenboim's previous Schubert disc (DG 2530 995) gave a disappointingly flabby account of the great valedictory Sonata in B-flat Major and a much stronger one of the unfinished Sonata in C Major, there is nothing flabby in his just-released performances of the Impromptus: even those who find his playing of these irresistible works not entirely to their taste will still, I think, find it fascinating both for the freshness and for the depth of his approach. It is, overall, a rather darkly dramatic, at times even austere one; Barenboim makes no concession to sentiment but seems to let Schubert's lyricism take care of itself—with

neither suppression nor gratuitous emphasis—while he explores the broader implications of the various pieces.

His tempos tend to be broad, most conspicuously in D. 935, No. 2 (the first three pieces in that set, in fact, make a very snug thirty-minute side, with the fourth prefacing the D. 899 sequence on side two). But if the pacing is unhurried, it does not seem overly deliberate; the quirky spontaneity in D. 935, No. 4, illustrates pointedly how expansiveness and intensity go hand in hand, how the quintessentially Schubertian gaiety is tinged with melancholy.

A subtle emphasis in D. 935, No. 1, points up its kinship with the *Wanderer Fantasy*; the opening and closing numbers of the D. 899 set are all the more poignant for Barenboim's apparent detachment, his avoidance of effusiveness. Everywhere the structural lines are crisply clear, the dynamics graded subtly or boldly for a particular piece's most convincing dramatic effect. Only Alfred Brendel, among the other pianists who have recorded the *Impromptus*, seems to take quite so large-scale a view of them, and in several small points I now find his approach merely fussy while Barenboim's seems more persuasive each time I return to it—as I did many times before writing this review. This is a fascinating record, and Deutsche Grammophon has come through with exceptionally realistic piano sound to complement it.

—Richard Freed

SCHUBERT: *Impromptus, Op. 90 (D. 899) and Op. 142 (D. 935)*. Daniel Barenboim (piano). DEUTSCHE GRAMMOPHON 2530 986 \$8.98. © 3300 986 \$8.98.

Guillaume de Machaut: A Uniquely Entertaining Program of Medieval Music and Poetry

MUSIC FOR A WHILE'S "*La Fontaine Amoureuse*" is a sort of sequel in sound to Barbara Tuchman's popular historical treatment of the fourteenth century, *A Distant Mirror*. The life of the composer-poet Guillaume de Machaut spanned the first seventy-seven years of the century; his poetry is still celebrated in literary circles, and his music is highly regarded among musicians. Music for a While has devised a breathtaking album for the 1750 Arch label which brings these two creative facets together in a moving portrait of the man. Selected passages from his poetry, translated by Meg Bogin and read by Tom Klunis, alternate with performances of a well chosen program of his secular music. The sequence of the material presents Machaut's emotional reaction to various "calamitous" (to use Tuchman's word) events of the century, revealing in the process the inner growth of a fascinating and remarkable man.

The four members of Music for a While (LaNoue Davenport, Judith Davidoff, Christopher Kenny, and Sheila Schonbrun) are masters of some dozen ancient instruments and boast three vocal ranges among them: soprano, countertenor, and baritone. Their switching among the various instrumental timbres is very subtle, and,

together with their discreet use of drones and percussion, produces a pellucid web of delicate sounds. Each member of the group is a fine soloist, and the exquisite ensemble work is the result of their maturing together artistically through years of performing experience. They bring us the heritage of the New York Pro Musica in its fullest bloom. (The group's name, by the way, is taken from a Henry Purcell song of an entirely appropriate beauty; it can be heard, ravishingly sung, on Elly Ameling's "Souvenirs," Columbia M 35119.)

This disc is a must for collectors, no matter what type of music they favor. The presentation of Machaut here is unique, and the blend of the spoken word with music takes one through a series of emotional and artistic communications one does not want soon to forget.

—Stoddard Lincoln

MUSIC FOR A WHILE: *La Fontaine Amoureuse—A Medieval Evening of Poetry and Music by Guillaume de Machaut*. Music for a While; Tom Klunis (narrator). 1750 ARCH S1772 \$7.98.

Joan Morris and Bill Bolcom Play Irving Berlin: Berlin Wins

PIANIST William Bolcom and his songbird wife, mezzo-soprano Joan Morris, have been putting out so many albums lately that they're in possible danger of turning their act into an industry. So far, though, there's been nothing perfunctory about any of their performances, and their current tribute to Irving Berlin in honor of his ninetyeth birthday sustains the high standard they have set for themselves.

Berlin's songs, so many of them straightforward romantic ballads, do not provide as many opportunities for Morris to exercise the slyer side of her style as do, say, the wittier efforts of Gershwin or Rodgers and Hart or the vaudeville numbers of the Gay Nineties. She makes no attempt to undermine the soggy sentiments of *Always* or *All Alone by the Telephone*, for example, but is content to sing the words and wistful melodies of these time-honored favorites with a straightforward simplicity that is quite affecting. ♦

Tom Klunis and Music for a While in their business suits



A. Partes/1750 Arch Records



JOAN MORRIS AND WILLIAM BOLCOM

On the other hand, when it comes to such jaunty items as *The Girl on the Magazine Cover*, *Pack Up Your Sins and Go to the Devil*, *Not for All the Rice in China*, and that chin-up memento of the Great Depression, *Let's Have Another Cup of Coffee*, she makes the most of her chances to supply the right number of ornamental musical winks in all the right places. In *Pack Up Your Sins*, in fact, one of Berlin's double ditties (*You're Just in Love* from *Call Me Madam* is a perfect specimen of the species), she goes so far as to accompany herself by means of the often-misused magic of overdubbing, and she brings the whole thing off beautifully.

Morris may be no match for the composer himself when it comes to *Oh, How I Hate to Get Up in the Morning* (see page 126), for Bing Crosby crooning *White Christmas* (I couldn't believe she meant a word of it), or for Ethel Waters' classic treatment of the heart-breaking *Supper Time*, but she's never anything less than delightful, and Bolcom is always there supplying his sassy, syncopated accompaniments to telling effect. He also offers a wonderful solo on *That Mysterious Rag*, the tune of which Erik Satie made the satirical most in his score for the ballet *Parade*.

Between them, Morris and Bolcom just about make good Robert Kimball's claim in his liner notes that Berlin is "incontestably our greatest songwriter." The way his songs are performed on this disc affirm his position as *one of our greatest*, certainly. —Paul Kresh

JOAN MORRIS AND WILLIAM BOLCOM: *The Girl on the Magazine Cover*—

Songs of Irving Berlin. Joan Morris (vocals); William Bolcom (piano). *Always; The Girl on the Magazine Cover; That Mysterious Rag; All Alone; Oh, How I Hate to Get Up in the Morning; Supper Time; White Christmas; Pack Up Your Sins and Go to the Devil; Not for All the Rice in China; Cheek to Cheek; Let's Have Another Cup of Coffee; It's a Lovely Day Tomorrow.* RCA ARL1-3089 \$7.98, © ARK1-3089 \$7.98.

Flash and the Pan: Two Rock-'n'-roll Oddballs Drop Their Aliases

HARRY VANDA and George Young have been responsible, under a variety of aliases, for a lot of great rock-and-roll since their days as leaders of one of the Sixties' top cult bands, the Easybeats. Greg Shaw has, with some justice, credited them with practically inventing the genre now known as Power Pop, and their reputation as cult heroes has, oddly enough, survived even their commercial manipulation (as writers and producers) of such big-time Seventies schlockmeisters as AC/DC and the more recent John Paul Young (no relation). Which only proves that if you keep a low enough profile, rock fans will forgive you almost anything. Not for nothing, those aliases.

"Flash and the Pan" is their latest, and it is also the first real album from the pair in ten years (although you'd never know it from reading the liner copy, which, apart from a tacked-on-

for-America history lesson, is about as cryptic as a Braille version of the Cabala). It is also a minor pop masterpiece, and you don't have to be a member of the cult to enjoy it. If you are, you'll know what it sounds like when I tell you that its vision is thoroughly consistent with Harry and George's best work since the very beginning of their careers, when they were for all intents and purposes the Beatles of Australia.

Describing it for the uninitiated is a bit harder, though; it's a peculiar, eclectic mix of an album. If you can imagine Sixties soul influences filtered through a synthesizer sound that verges on Eurodisco, with some tacky New Wave organ misterioso and Phil Spectorish dynamics, the whole thing mated to frankly melodramatic lyrics declaimed (in the verses) more often than sung, then you might begin to get an inkling. What you won't get, however, is how unforced and natural the whole thing sounds. It may be weird, but it's *mainstream* weird (if that makes any sense), a little like 10cc, except that it rocks out a lot harder.

But enough of my attempts to pigeonhole this stuff. Let's just say that it's excellent music and let it go at that; Epic is to be commended for taking a chance on something this adventurous. Meanwhile, next time somebody tries to sell you the line that rock is stagnating, just play "Flash and the Pan" for them. And tell 'em Vanda and Young sent you. —Steve Simels

FLASH AND THE PAN. Harry Vanda and George Young (vocals and instrumentals); Ray Arnott (drums). *Hey, St. Peter; Man in the Middle; Walking in the Rain; The African Shuffle; California; Lady Killer; The Man Who Knew the Answer; Hole in the Middle; Down Among the Dead Men; First and Last.* EPIC JE 36018 \$7.98, © JEA 36018 \$7.98, © JET 36018 \$7.98.

Harry Vanda and George Young in the kitchen



Roger Kellaway's

NOSTALGIA SUITE



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CELLO

Joe Picaro
DRUMS

Chuck Domanico
BASS

Emil Richards
PERCUSSION

Roger Kellaway
PIANO

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CIRCLE NO. 10 ON READER SERVICE CARD

AUTOSOUND: YOUR LISTENING ROOM ON WHEELS

By Ivan Berger



SOME say it's the behind-the-wheel leisure accidentally produced by the 55-mile-per-hour speed limit and the almost perpetual coast-to-coast traffic jam. Others believe it results from the fascination with vans, campers, and similar sorts of mobile "home environments." Still others see it as a sociological phenomenon in which everyone lives as if he were in a movie and drifts through the day to the unending background beat of kick drums and electric basses. But, whatever the reason, it is more and more with us: a remarkable boom in the popularity of car stereo systems.

UNDOUBTEDLY, much of car stereo's burgeoning appeal lies in the success with which the equipment has been able to take on the trappings and features of components for the home. In recent years high-power amplifiers, bi-amplification, graphic equalizers, tape-type switches, Dolby noise reduction, digital-readout tuning, and two-, three-, four-, and even five-way speaker systems have all become a part of mobile sound systems. The outer appearance of car units reflects the influence of front panels most often seen in living rooms, and even the inner specifications are assuming the form and content of those usually applied to home high-fidelity systems. Here, however, is an area in which it's best to be a little wary. I find it *much* harder to compare car-stereo performance specs than it is to compare those for home components. That's especially bad news, for knowing what you're getting before you buy is particularly important in the case of car stereo: once something's installed in your dash, you can't just unplug it and take it back for a refund or trade-in. It is true that more and more car-stereo makers are giving full, revealing specifications, but by no means all do. And some specs are so peculiarly presented—or inflated—that they are apt to mislead.

The most specious spec in common car-sound use is amplifier power. Unless stated to the contrary, it's likely to be the sum of both channels' power—referred to a whopping 10 per cent distortion! And FM sensitivity figures

quoted in microvolts look twice as good as those for comparable home tuners because of the difference in antenna-system impedances (for more details on the specification issue, see the box on page 79). Otherwise, car-sound specs tend to look surprisingly like those for any good home stereo system. Here are some samples from a few of the better products: FM signal-to-noise ratio, 68 dB (Concord); tape signal-to-noise ratio, 53 dB (J.I.L.); capture ratio, 1.5 dB (just about everyone); FM sensitivity, 12 dBf (1.1 microvolts at 75 ohms, equivalent to 2.2 microvolts at the 300 ohms used in rating home equipment); 50-dB quieting, 14.3 dBf (2.8 microvolts at 75 ohms, 5.6 at 300 ohms).

ABOUT the only distinction in performance, as you'd expect in devices that are small and draw their power from a car's electrical system, is the low amplifier power of car units. The majority of car-sound systems produce an honest 4 or 5 watts per channel. If you want substantially more power than that, you may need an external amplifier—otherwise, the equipment would be too big to fit into the dashboard slot provided for it. Units supplied with external power-amplifier stages or with provision for specially designed booster amps are available from Craig, Jensen, Marantz, Midland, Pioneer, and others. Booster amps (including models with equalizers offering anywhere from five to ten control bands) are available for virtually any car stereo made.

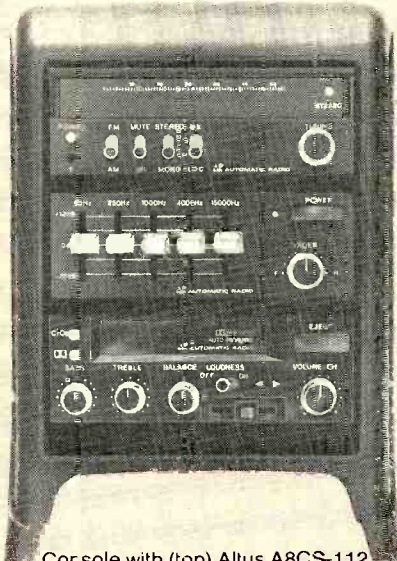
However, booster amps negate the utility of the already existing built-in power amplifier. Therefore, in addition to the two-piece units mentioned above, which eliminate the amplifier stage, a growing number of models are being sold with preamp-level outputs for use with the amplifier of your choice, enabling you to drive other speakers with the built-in amplifier if you like. Altus, Clarion, Fujitsu, Panasonic, and Sanyo are among those offering in-dash models with no power-output sections, and the ranks of amplifiers with preamp-level inputs are getting to be legion. Many amplifiers now offer both preamp-level inputs and speaker-level inputs for booster-amp use, allowing you to use them now with a conventional car-stereo ensemble and later with a preamp-level one.

Bi-amplification (powering the woofer and tweeter separately) is becoming commonplace—more so in the car, in fact, than it is in home systems. The ADS self-amplified 2001 and 2002 speaker systems were about the first car-sound components to adopt bi-amplification, and Sanyo has been pushing the idea quite heavily for the past few years. But the list of those who offer either bi-amplified systems or bi-amplifiable speakers now includes ADS, AFS, Altus, Audiobile, Car-Fi, Fosgate, Jensen, MetroSound, Panasonic, Pyramid, Shmegg, and Trusonic. And Sanyo has now introduced a new wrinkle: a motorized, remotely controlled *fader* built into two of its latest power amplifiers, permitting speaker lines to go directly from the amplifiers to the

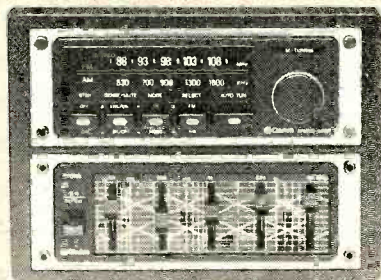
AUTOSOUND



Alpine Model 7212 AM/FM/cassette



Cor. sole with (top) Altus A8CS-112 AM/FM tuner, (center) A8CS-101 equalizer/amp/preamp, (bottom) A8CS-152 cassette player



Clarion PLE-029 rack with (top) GT-501E AM/FM tuner, (bottom) GE-501E equalizer



Craig Model T684 AM/FM/cassette

speakers rather than up to the dash and back to the speakers again.

A few preamp-level equalizers are starting to appear, chiefly among the car-component systems, but most equalizers are combined with booster amplifiers—as they have been since equalizers first entered the car-stereo market. Five-band equalizers are commonest, but there are also several two- and three-band models (from Grundig, Kraco, MetroSound, Shmegg, SBE, and others), one six-bander (from Comm), seven-band models from Fultron, Kraco, MetroSound, Marantz, Pioneer, Roadstar, Royal Sound, Sanyo, Rystl, and Zoom, a nine-band Zepco, and ten-band models from Altus and Pyramid.

Here, too, there are some interesting variations on the theme. Panasonic, for instance, has built small five-band equalizers into several of its in-dash units, and Roadstar has a five-band model whose controls are mounted at the end of a flexible stalk. Set between two front bucket seats, this could permit sound-tailoring by either front- or back-seat passengers. Alternatively, it could be tucked out of the way where no passenger would find and fiddle with it. Car-Fi has an equalizer with lights to indicate the signal levels in each band—in effect, a modest spectrum analyzer.

Trends in Tape

Metal tape may be coming, but auto-sound is still catching up with CrO₂ and the other tapes that require 70-microsecond equalization rather than the 120 microseconds of standard tape types. Models with CrO₂ playback equalization are available from Altus, Clarion, Concord, Motorola, Pioneer, Nakamichi, Sanyo, and Tenna, not to mention the Nakamichi and Uher models that record. And Sanyo, at least, specifically claims metal-tape compatibility—which means that their units can *play it back*; they needn't worry about recording or erasing it. (There is another Sanyo in-dash model that records, as well as one from Blaupunkt and two portables from Nakamichi and Uher, but of those only the portables are set up for CrO₂ tape.)

All the CrO₂-compatible machines have Dolby noise reduction, and so do other models from Audiomobile, Blaupunkt, Craig, Fujitsu, Jensen, Panasonic, Royal Sound, and Roadstar. Recognizing how Dolby-encoded FM broadcasting has lagged behind the explosive growth of the Dolby system for tape, only a few makers (Jensen, Motorola, Pioneer, and Sanyo) seem to have Dolby circuits that work in FM

too. Dolby broadcasting may begin to grow faster if plans to have stations broadcast a "pilot tone" that would switch on the Dolby circuits in radio receivers succeed; if that happens, look for more Dolby-FM facilities in car stereo equipment.

Meanwhile, tape manufacturers such as Fuji and 3M recommend the use of 70-microsecond tapes in machines not designed for them to compensate for the weak high end many such players have. If weak highs are a problem in your car, you might consider this.

Though metal tapes should soon be bringing better sound to cassettes in car stereo, they may eventually help supplant the cassette altogether. Instead of being used to improve quality in cassettes of conventional size, they may be used to maintain today's sound quality in the far smaller microcassettes, which run at half the standard 1½-ips cassette-tape speed. This would make a trip's worth of tapes far easier to carry and to store in the car, and it would not only give the sound-system designer more space for his electronics, but—perhaps even more important—more panel space for the many controls car-stereo units are now offering. Since there's no library of recorded microcassettes on metal tape for sale yet, the introduction of the metal micro would probably have to be simultaneous with the introduction of home decks on which they could be recorded. It's impossible to say how long it will be before you will be able to buy such equipment, but it may be significant that Sony has shown metal microcassette tapes, and that this company has also recently plunged into the Japanese car-stereo market.

B.I.C., meanwhile, has taken the opposite tack: its standard-cassette decks are the first to operate at the double speed of 3¾ ips for greater fidelity. And to allow tapes recorded at the higher speed to be used in the car, they have been working on a two-speed under-dash player for mobile use.

Off the Air

Few are the features found in car-stereo tape sections that you won't find even more universally in home tape decks of the past few years. But in FM it's a different story. True, many a feature formerly exclusive to home tuners can be found, increasingly often, in the car as well: FM interstation-noise muting (one of the biggest lacks in earlier FM car radios), often with switchable defeat to permit reception of weak stations, and stereo/mono mode switches are good examples. (As yet, I've seen

(Continued on page 80)

WHEN high fidelity first crossed my path back in the Fifties, component makers were already wedded to the idea that sound performance should be specified numerically. But there was still some confusion as to just *what* should be specified. Power output, the specification that had the most effect in selling equipment, was a prime source of confusion. Some manufacturers listed continuous power, others listed "peak" power (*double* the continuous rating, as it happened), and by the Sixties many were listing something called "music power" as well. Distortion was specified by most component makers, but not by most makers of console and compact phonographs, who used the EIA rating method, which assumed 5 per cent distortion without saying so in the specs.

There's been none of that confusion in home stereo equipment for the past five years or so, however, not since the Federal Trade Commission stepped in and mandated that advertised power be measured by an extra-rigorous version of the original IHF continuous-power rating. But in car-stereo equipment, the chaos in specifications is enough to bring you right back to 1950.

Oddly enough, ignorance seems to be at least as responsible for the confusion as venality. Most of the missing, misleading, or incomprehensible specs are simply a carryover of standard practice from the old car-radio days. Incomprehensible FM sensitivity specs are usually just poorly understood versions of established Japanese ratings. And some of the most honorable companies compound the confusion by stating their specs so conservatively as to render them meaningless.

Most of the mess revolves around the two specifications most cited as sales points: amplifier power and FM sensitivity. Here's how to tell when you're ensnared in the underbrush and how to hack it away—when that's possible.

- **Power output.** More and more car-stereo makers are listing amplifier power output the same way home-equipment makers do: giving full, revealing specification tables that list power output separately per channel, the distortion level at which that power was achieved, and (infrequently) the band of frequencies over which that power is attainable.

Often, however, the distortion level listed with the power spec is 10 per cent; where, more commonly, there is no distortion level shown, you can assume it's 10 per cent. Listing power at that distortion level has been standard practice in car-radio circles for years. Few STEREO REVIEW read-

ers would listen long to such distortion, so, for practical purposes, you can assume that the *listenable* power output will be from one-half to two-thirds the power listed. It's also common in car-stereo specs to list total power for all channels, rather than power available from each, so if you see a car-stereo unit rated at a bald "24 watts" with no qualifications, you should assume that the unit actually delivers about six or eight watts per channel at low distortion levels. ("Peak" power, I'm glad to say, is

AUTOSOUND SPECIFICATIONS: A VEXED QUESTION

rarely cited in car-stereo specs, and "music power" ratings appear to be nonexistent.)

You can usually assume, too, that the power rating applies to a load impedance of 4 ohms. But that's not skulduggery; it's an honest response to the fact that many car speakers are 4-ohm units rather than the 8-ohm kind more common in home systems. Because 4-ohm speakers draw twice the current (and hence twice the power) from the same signal voltage as 8-ohm types do, the lower impedance is advantageous. Car-stereo systems run on the 13.8 volts of a car's electrical system (the nominal "12 volts" applies only when the engine's off and the stereo's running on the battery alone), so the maximum signal voltage available is limited. High-power car amplifiers do exist, of course, but they must use special power supplies employing "d.c.-to-d.c. converters." These provide the higher d.c. voltage required to achieve a higher power-output rating.

If car stereo had been as popular as it is today back when the FTC was setting its amplifier-rating standards, these units would have been covered along with the home units. It would have been necessary to state only that the ruling applied to "home and vehicular" rather than just "home" amplifiers, and that the power could be measured at 13.8 as well as 120 volts. The Institute of High Fidelity and the Electronic Industries Association have both petitioned the FTC to make these changes in the ruling now. But without a volume of customer complaints, the FTC is unwilling to go through the time, trou-

ble, and expense of the hearings, publications, and other steps necessary to enact the change legally. Apparently, it costs the FTC about as much to amend a rule as it does to impose one in the first place.

But if the government won't act, the industry itself may. By the time you read this, a group of companies that account for about 80 per cent of the car-stereo market will have held their second meeting to push for new, standardized specifications. Such companies as Audiovox, Clarion, Craig, Delco, Jensen, Motorola, Pioneer, Roadstar, and Sanyo have already come out publicly for stricter specs.

The FTC is already looking into the possibility of reinterpreting its current rule to apply to in-car as well as home-entertainment amplifier ratings, a process far quicker and less expensive than amending the terms of the existing rule. And if—as some companies charge—some advertised specifications for car-stereo equipment have been falsified, then the government could move against the issuers of such spurious specs for false advertising.

- **FM Sensitivity.** Here the waters are less murky. Almost every car-stereo maker who lists any specs at all lists "IHF" or "usable" sensitivity. This is the signal strength required for a 30-dB signal-to-noise ratio—which says little about the tuner's performance with signals you'd be interested in listening to! The important sensitivity measure, now included in most home tuner specs but missing from most car-sound listings, is sensitivity for 50-dB quieting—in other words, how much signal the tuner needs to produce a really *listenable* signal.

Car-stereo tuners come up with eye-popping sensitivity figures such as 0.9 microvolts (μV). Such figures are legitimate, but they are not as good as they at first look. Car-stereo systems use 75-ohm antennas rather than the 300-ohm antennas most home receivers use. A 75-ohm system requires only half the voltage (but twice the current) a 300-ohm system does for the same signal power. In other words, "0.9 μV " in an automotive receiver's 75-ohm system is precisely equivalent to a more familiar-looking "1.8 μV " at a home tuner's 300-ohm antenna terminals. Both would, of course, be equivalent to 10.3 dBf, a measure of signal *power* that's independent of impedance.

Fujitsu Ten and Panasonic cite their sensitivity figures according to a Japanese rating system, giving signal strength in "dB" for a given quieting level, and conversion to IHF-sanctioned figures isn't easy. —I.B.

AUTOSOUND



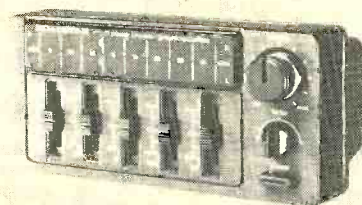
Fultron Ultra II AM/FM/cassette



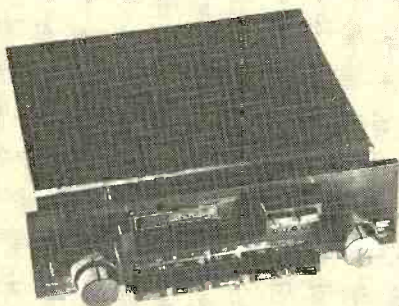
Motorola TC894AX AM/FM/cassette



Panasonic CQ-8700 AM/FM/cassette/clock



Roadstar Model 89 amp/equalizer



Royal Sound RS-2510 AM/FM/cassette



Sparkomatic SR 3400 AM/FM/cassette/clock

no mobile FM unit with a high-blend switch—automatic or manual—for weak, noisy stations, however.)

But there are other tuner features that you'll virtually never find in car equipment. The ubiquitous, smooth-gliding flywheel tuning knob won't work where road vibrations can send it gliding on its own across the dial; a touch of resistance to rotation is far more useful here. The many meters that beguile your eye and help you tune home receivers can't be allowed to distract you in the car or to take up valuable panel space either. And what good is multipath metering when the only way to rotate the antenna is to spin the car—and the antenna is omnidirectional anyway? You will, however, find meters on some separate car tuners from Mitsubishi and Roadstar.

A "local-distant" switch, found only rarely on home tuners, is a common sight on car-stereo equipment. Since the distance between the tuner and the station will vary with every mile you ride, and since you can't orient your antenna to discriminate against over-strong stations, it can be a useful feature. Some units combine the muting-off switch position with the "distant" position of the local-distant switch on the assumption that you'll be in the distant mode whenever you search for the signals that the muting would obliterate. This is true much of the time, but perhaps not always.

HOME systems are only now beginning to adopt wholeheartedly the tuning aids—such as pushbutton presets and auto-tuning—that first became popular in the car. Presets are pleasant enough to have at home, but they're a real convenience in the car, where a driver should save his attention for his driving, not for finding his favorite music station. The standard, in AM days, was five big buttons that brought in one station apiece when punched. In today's AM/FM world we can choose a system that brings in two AM and three FM stations (or vice versa); a system that brings in one AM, one FM, and three stations of either, at the user's option; or one that delivers five AM and five FM stations—two stations per button. On some of the new all-electronic-tuning models from Fujitsu, Marantz, Panasonic, and others there are six buttons for twelve stations; and on one model each from Fultron and Handic there are seven buttons for fourteen stations.

All-electronic tuning eliminated the heavy linkages that mechanical presets needed, and so made possible the multi-button models. It also made it unnecessary to *punch* your station but-

tons; just a light pressure will suffice for the all-electronic ones, and some will work with just a bare touch, no pressure at all.

All-electronic tuning also simplified the use of auto-tuning, by which the set can find the stations for you. That's not as good as pushbuttons when you're trying to find your favorite local station, but it's a big help when you're restlessly seeking new stations to listen to or when you're on a trip and don't know where the local stations are.

Some radios "scan," some "search" or "seek," and some do both. A set that scans will move out to the next suitably strong signal, play it for a few seconds, and then, if you haven't touched a switch to *keep* it on that station, scan on to the next one on the dial. Search or seek tuning will stop indefinitely at the next suitable signal it finds until you command it to move on once again. Popularized in recent years largely by J.I.L., auto-tuning has spread throughout the industry. It's now available from Audiovox, Boman, Blaupunkt, Clarion, Craig, Fujitsu Ten, Fultron, Kraco, Handic, Midland, Marantz, Panasonic, Pioneer, Tenna, Roadstar, Royal Sound, and Sanyo (the last two have a remote scan control that can be mounted closer than the receiver itself to the driver).

Still another electronic-tuning by-product more common on wheels than in the home is the digital tuning dial. Digital dials give the car-stereo designer a chance to display bigger numbers in a smaller space. Like digital watches, they make it easier for you to tell precisely what you're reading, but harder for you to judge approximations. Just as the guy with the digital watch can tell you instantly that it's 8:39 but has to stop and think when you ask how long it is until 9:00, so the guy with the digital dial will have an easy time finding stations whose frequencies he knows, and a harder one finding those he recognizes from the pointer's position on the tuning dial.

JUST about everyone has (or will have) digital dials in their top in-dash models (only Fujitsu Ten, so far, has one in its under-dash tuner line). Most of those dials double as digital clocks, and a few (from Audiovox, Roadstar, Sanyo, and Sparkomatic) can measure elapsed time on a trip as well. One Sanyo model is a calendar clock. And Fujitsu's under-dash tuner's timer/clock/station indicator beeps every hour on the hour, can be set to beep after a preset interval, and beeps when you press its auto-tuning button as well.

Several stereo-broadcast systems for
(Continued on page 82)

LATE Sunday morning. Teeming rain outside, Sunday Bloody Sunday boredom reigning inside. The telephone sputters with that windup-toy clatter that seems built into country telephone systems. It's my friend Terry Trethewey. He wants to know if I'd like to go out for a late breakfast or an early lunch; if so, he'll drive over and pick me up. I pounce on the opportunity to allay my cabin fever, agree on a time, and hang up. Second thought: the roads would be great for a John Curry production number, but skating along them in a car gives me whiplash just thinking about it. Oh well, last time I saw Terry he was driving one of those big maroon bathtubs with a see-through ceiling added that Lincoln puts out. Rolling off the road in one of those might not be too bad, sort of like Cinerama as we turn over and over down some gorge. And it'll be nice to see Trethewey again; he seems to be away on business all of the time. He's in natural gas, a good field for a young man (he's twenty-six) to be in. Maybe someday he'll make a decent living from it.

Precisely on time I hear the plush bray of an unexpectedly Straussian-sounding horn. I make my way out to the driveway, and—There It Stands! A brand-new Rolls-Royce Silver Shadow II with ol' Terry at the wheel making the Cheshire cat look melancholic, and here I am standing dumbstruck in the rain. Okay, up and in! (One does still Step Up to get into a Rolls.) After I adjust my luxuriously padded seat (walnut-color leather with ivory piping; the exterior colors are the same), which is capacious enough for one oil sheik or two rock stars and writhes under me like a Magic Fingers sofa, we're off.

MORE to quiet myself down from my frenzy of exclamations (never felt so much like *Oliver Twist* in my life) than anything else, I suggest we listen to "This Is Quadraphonic Sound," the eight-track demonstration cartridge that came with the car. All I can report of that first ride is that the tape, heard through the built-in Pioneer player and Philips speakers in the doors (standard equipment along with a Blaupunkt radio), seemed to sound as miraculously sleek and sumptuous as the car itself. Later I took another ride just to listen again to the tape, and I was once more overpowered by the utter magnificence of both the car and the sound. (Recently Rolls decided that the stereo cassette medium has finally proved its staying power and quadraphony has not, so the models reaching these shores as this goes to press will have Pioneer cassette players with a new two-channel stereo demo tape. They're keeping the speakers in all four doors, though.)

Terry's only complaint about his Rolls is that his cigarettes seem to disappear from the bottom of the ashtray, never to be seen again. He feels a certain uneasi-

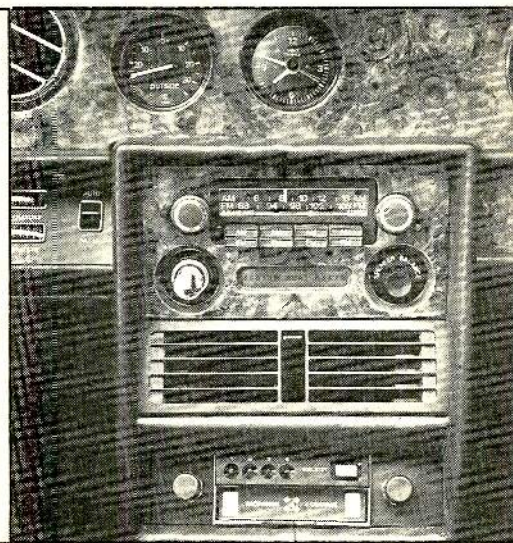
ness about where they could possibly be going. The things that trouble Rolls drivers! Ten years ago Terry's first vehicle was a five-year-old panel truck which he used to carry around his lawn mower, the major heavy equipment of a then-thriving landscaping business.

But back to the tape. I have to report that the sound of it is really extraordinary, but the repertoire leaves, shall we say, Something To Be Desired. "Programme 1" starts off with those familiar ominous chords from the opening of *Thus Spake Zarathustra*, and then a chirrupy English male voice informs you that what follows is an EMI demonstra-

"Programme 2" finally sent me on the kind of head trip I've always expected from a Rolls, with Rodrigo's *Concierto de Aranjuez* for guitar and orchestra. Lovely, lovely, lovely. All I needed to make it perfect was Catherine Deneuve in the next seat. The delight didn't last long, though. I was wrenched back to reality by *Table Tennis*, which stars the sensational sound of a ball bouncing off a table to disappear somewhere under the glove compartment. *Close to You* is more Muzak. *Football Crowd and Pin Ball Machine* is first roar, roar, ROAR and then the sound of a ball clacking through its course. *Cumana* is an instru-

The 120-mph Concert Hall

For your Rolls:
Blaupunkt AM/FM radio,
Pioneer eight-track quad
player, and four Philips
speakers in the doors.




Herman S. Paris/Rolls-Royce

tion of "quadraphonic sound effects for your amusement." Then the sound of a real windup toy travels back and forth and around the four speakers. Hmm. *Mascaranegra*, the next selection, consists of pretty vapid Muzak-style Sweet Sounds. Following that is *Morning at London Airport (Heathrow)*—the sound of a jet taking off. Next is the *Aragonaise*, which is absolutely stunning; the crescendos and the string sound left me limp.

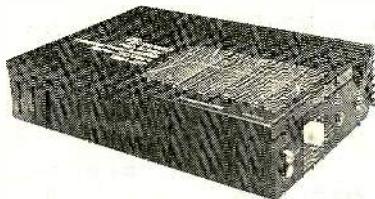
Then it's back to the sound effects: *Ten Pin Bowling* features a ball running around the speakers, ending up with an all-too-realistic strike—right in the driver's seat. After that is a ludicrous rendition of *How'd You Like to Spoon with Me?* by what sound like two American vocalists, succeeded by an unbelievable jam session on "musical spoons." *At the Clockmakers* follows, with the nerve-racking sound of too many clocks tick, tick, ticking away and then, finally, chiming. Next is *Extract from 'Scene du Bal,'* a stately piece of fluff worthy of Eric Coates at his jauntiest. *On the Squash Court* is a thrilling collection of thumps, bumps, and mutterings by players and a final verismo wheeze of exhaustion. *Music to Drive By* is just that.

mental "Latin" number with all the snap of Abbe Lane singing the Verdi Requiem. But not to worry; before you know it you're *Back at London Airport (Heathrow)* listening to what is presumably that same jet from "Programme 1"—descending.

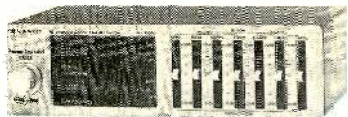
WELL, it was an Experience. About the only sound Rolls didn't include on its tape is the famous "silence" of the car itself. The car is, of course, on a level of quality one seldom encounters these days, and at least to my ears the built-in audio equipment is fully worthy of it. As for the tape's contents . . . well, in a Rolls Anything Goes, so to speak, but I'm sure it would be a disaster in a Pinto. Terry, by the way, is now riding around with a month and a half's collection of cigarette butts. He doesn't know the ashtrays empty automatically into a bin, which is not automatic. —Peter Reilly

THIS IS QUADRAPHONIC SOUND. Various instrumentalists, vocalists, orchestras, and sound effects. EMI  Q8-DT 1, free with purchase of a Rolls-Royce, certain older models only, and at record and tape dealers in Britain for £4,60d.

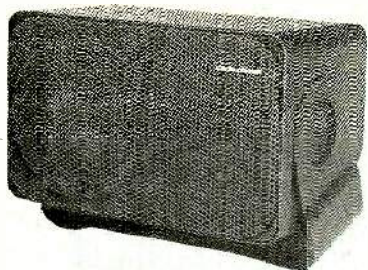
AUTOSOUND



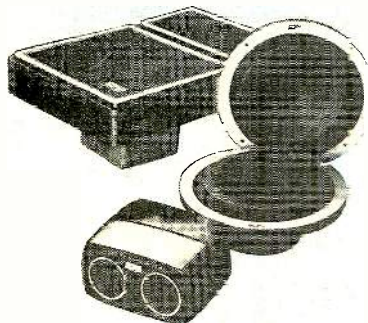
Pyramid PMA-270 power amplifier



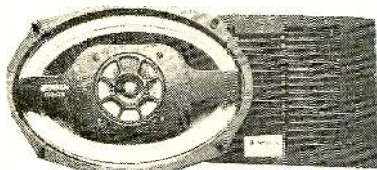
Sanyo EQZ-6400 biamplified equalizer



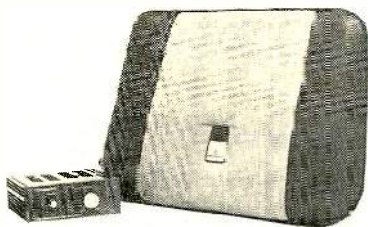
Dahlquist ALS-3 speaker



EPI LS70 (rear) and LS35 (center) speakers with (front) LCS level control system



Jensen Coax II speaker



Pioneer Bodysonic cushion and amplifier

AM are now being evaluated, and the FCC may make its choice known between the time you read this and the end of the year. Six months or so thereafter, the first stereo AM receivers for the car should hit the market.

AM is one area in which judgments made by home standards may lead you astray in car-sound considerations. AM in the car is much more valuable than it is at home (it carries more traffic reports, and it can be heard over longer distances than FM on the long, lonely highways between towns). It's also much better in quality than you'd ever suspect from listening to the average AM/FM home component tuner. Because AM counts in the car (and, I suspect, because the older car-sound companies began as AM-radio manufacturers), the AM sections of good—or even average—car radios and receivers are often better than those of many home hi-fi component systems. Possibly stereo AM will create the demand for good home AM sections.

Auto "Components"

Components exist for the car, too—small counterparts of their home-based brethren that can be installed in brackets over the transmission hump or any other place that is convenient. They seem most apt for use in a van or camper where there's more room for a sound system and more listening time spent at rest when the driver needn't keep his mind on driving. In fact, the driver conveniences now so plentiful in in-dash models are somewhat lacking in the components available. Of the seven companies now in the car-component market (Altus, Clarion, Fujitsu Ten, Mitsubishi, Panasonic, Roadstar, and Tenna), only Fujitsu offers auto-tuning and only Tenna has a station preselector. Automatic tape reversal is a bit more common, being available from Fujitsu, Mitsubishi, Panasonic, Roadstar, and Tenna. In styling and features, car components show the distinct influence of the new minicomponents—or is it the other way around?

Speakers

In the past few years, almost every speaker manufacturer with minispeakers in his line has also made models for the car. Usually, the mobile model is identical to the home one, with the addition of a swivel bracket for installation. However, two of the models from ADS are also accompanied by matching amplifiers meant to drive them in car installations. In the case of the ADS-2001, the amplifier is external and can be used as a booster or be driven

by preamp-level signals; the ADS-2002 has its amps built into the speaker enclosures and is designed to work from the preamp-level outputs of Nakamichi's 250 cassette player or 350 recorder/player and similar components. Dahlquist's new minispeaker first appeared as a unit for the car, and Ultralinear has one model that can be either bracket-mounted or sunk into the car's rear package deck (as can the ADS models, with adapter mounts).

Many of the minispeakers have metal-alloy cabinets, usually black. However, Infinity's new mini (like Polk's older one) has decorative wood end panels, a link to home-speaker styling. The Infinity model also shares with KLH the distinction of having a novel "film-diaphragm" tweeter. Both Mesa and Visonik now offer subwoofer companions to their car minispeakers. Visonik's comes as part of an "Auto-Sub" system which includes a three-channel amplifier to power the W-600 subwoofer and whichever two main speakers you choose to use with it. And Altec has a powered subwoofer.

A number of enclosed car speakers, such as the Canton model, employ enclosure shapes intended to aim the speaker up and out when it is mounted on the rear package deck. Advent's speakers have matching amplifiers that are equalized to smooth out response irregularities that can result from installation in the car environment.

Clover offers rounded enclosures upholstered to match the interiors of Porsches, Corvettes, Rabbits, Volvos, BMW's, Mercedes, and Jaguars. The enclosures are available with Blaupunkt or Jensen drivers or left empty for the user's choice. Grundig has another unusual mounting option: an enclosure that spans the ceiling of the car just behind the driver's seat, where it can't steal headroom. Also mounting on the car's headliner is an add-on tweeter that KLH calls the "Headliner." It is one of several tweeter or mid-range-tweeter modules that various manufacturers offer to solve the problem of speaker mounting at the front of the car. In the case of door-mounted speakers, all too often the only locations where they won't interfere with door handles and window-lowering mechanisms are the ones where their high frequencies are quickly absorbed by adjacent upholstery or the driver's socks. But if add-on high-frequency modules are used, they can be mounted almost anywhere they'll sound good, since they do not require the large enclosures bass speakers need. And sound good they do, since they restore the lost high frequencies and (if properly placed) can fool the ear into hearing

the entire sound source as being far forward, where it seems most natural. Fujitsu, Mitsubishi, Isophon, and Pioneer all make such modules, usually with internal or external sound-balancing controls. Jensen's add-on module is larger, since it covers mid frequencies as well. And full-range systems deliberately designed with separable drivers are offered by many others.

As for speaker specifications, changes are occurring in at least two respects: "sensitivity" (efficiency) is now listed occasionally, and power-handling capacity is going up (after all, 50-watt amplifiers are showing up in many lines, and amplifiers that top 100 watts per channel are available from Car-Fi, Mega, Pyramid, and Shmegg Linear Power). As you might expect, Cerwin-Vega has long had speakers with high power-handling capacity, and such companies as Jensen are now upping their ratings; a Jensen model that might have had a 25-watt capacity in its original version would now have about a 90-watt rating in its "Coax II" update. Ultralinear has taken the further step of protecting its speakers with built-in circuit breakers.

The Sense of Space

Stereo has always been a little more—shall we say—*voluptuous* in the car, possibly because of the headphone-like effect of sitting (usually) between the speakers in such close confines. But there are numerous ways of enriching even that sense of spaciousness further. One way is to delay the sound from the rear speakers so that the car sounds like a large, reverberant concert hall. Sound Concepts, a maker of home delay systems, was the first to offer this for the car, followed by Fujitsu Ten, and Blaupunkt and Pioneer have delay systems that are built into equalizers. And now there is a tiny remote control available for the Sound Concepts unit.

Approaches other than time-delay also exist. Fosgate has both home and mobile versions of the Tate SQ decoder, which not only decodes SQ quadraphonic tapes and broadcasts (of which there aren't many these days) but, more important, adds some apparent depth and spaciousness to ordinary stereo tapes and broadcasts.

The ultimate in depth of quite another sort may be offered by Pioneer. Their "Bodysonic" system vibrates your lower back in time with the beat of whatever your system is playing. How "musical" that might be is subject to dispute, but I don't doubt that on a long trip the massage could be as refreshing as some music is. □

AUTOSOUND AND DRIVING SAFETY

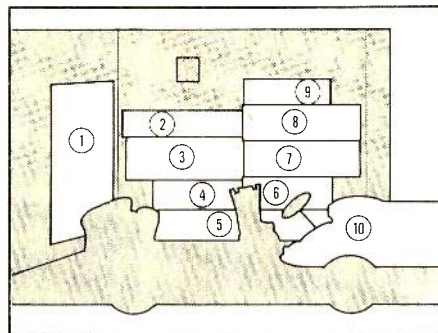


HEARING is second in importance only to vision in the safe operation of a motor vehicle, and it is the most important sense in alerting you to the approach of trouble from an unexpected quarter. Unfortunately, loud music in the car will limit your ability to hear outside sounds. An ambulance or other emergency vehicle may be right on top of you before

it is noticed; the warning noises of an impending mechanical failure may never be noticed at all. We therefore urge our readers to temper their enjoyment of their car-stereo installations with judgment. Use them in moderation or not at all in demanding traffic situations, or when the road leads past numerous intersections and blind entrances. And leave them completely off for the first few minutes of driving, until your vehicle has been certified safe by *all* your senses.

Headphone jacks on car-stereo equipment are very rare. We wish they were nonexistent. Not only do headphones render you oblivious to outside sounds; they also pose a serious risk of permanent hearing impairment in a noisy car environment, and the cable stretching from the dash to your head can be a killer if it gets entangled with your arms or the wheel during an emergency maneuver. Buy a car stereo with a headphone jack in it if you must—but leave the headphones at home. —R.H.

FRONTISPIECE: Shown in the "listening room" in the frontispiece on page 76 are (1) Advent EQ 1 speaker, (2) Fosgate PR 2100 preamplifier, (3) Pioneer cassette player/radio, (4) Fujitsu AT 7831 cassette player, (5) ADS CA 50 preamplifier, (6) Mitsubishi CU 231 equalizer/amplifier, (7) Motorola TC 874AX cassette player/radio, (8) Clarion PE-751B cassette player/radio, (9) Fujitsu SP 71151 speaker, and (10) the Advent EQ 1 speaker again, nekkid, so to speak.



BRAND-NAME TRAVELING COMPANIONS



SOME companies came into the autosound field from the auto-radio business, some from CB, and some were founded specifically to make high-end stereo for the car. But a growing number began as makers of components or other gear for home listening. Here's the most complete list we can muster, but you may well find a few more familiar names when you get to the store.

Already having made the move from home to in-car stereo (or about to) are: ADS, Advent, Altec, Audio-analyst, Bose, Braun, Canton, Cerwin-Vega, Craig, Dahlquist, Draco, Epicure, Finco, Hitachi, Infinity, Isophon, Jensen, JVC, KLH, LTL, Marantz, Matreco, Mesa, Mitsubishi, Nakamichi, Panasonic, Pioneer, Sankyo, Sanyo, Sharp, Sound Concepts, Superscope, Tamon, Uher, Ultralinear, and Visonik. Many of these simply make adaptations of their home minispeakers for car use, but others offer equipment made specifically for the highway. To be added soon to this list are the names Sansui and Sony, who have announced no U.S. car-stereo plans but have shown equipment in Japan.

A listing of the addresses of all the car-stereo equipment manufacturers we are aware of is available. Send a stamped, self-addressed, long envelope to Stereo Review, Dept. AS, One Park Avenue, New York, N.Y. 10016.

REQUIEM FOR THE SEVENTIES

After a little look around, Noel Coppage concludes that there's still hope for pop music in the Eighties

It was not the best of times. But, then again, it was not the worst of times either. The period we call the Seventies wasn't even the most mediocre of times. In the hyper language of the day, it was the *son* of that—Fifties II, Son of the Eisenhower Era. Musically, on a scale of one to ten, the Seventies was about a five—the *whole* Seventies, that is; the *late* Seventies was down around minus two. If the decade had been a television show, it would have been *Petticoat Junction*. (In fact, it was a television show and it was *Petticoat Junction*, only they called it *Charlie's Angels*.) Stylistically, the Seventies were so ardent about getting loaded and staying forever dumb that the period may have been the strongest reinforcer yet of our fundamental metaphor for Real Life in these United States: High School.

When the Sixties were about to start, and it was just becoming clear that Youth Must Be Served, rock-and-roll was an established but aesthetically

shaky fact, its hopes resting on the likes of Danny and the Juniors and the off-key wimps Dick Clark was pushing. Satirist Stan Freberg perceived the essence of it and made a recording in which a young "singer"—with the producer standing by with a sharp stick to help him hit the high notes—shrieked his way through a song whose lyric was one cry strategically repeated: "High school!"

When the Seventies were about to start and rock was the toast of intellectuals, Kurt Vonnegut Jr. (Indianapolis Shortridge High, Class of 1940) wrote a piece for *Esquire* in which he quoted a friend: "When you get to be our age, you all of a sudden realize that you are being ruled by people you went to high school with. You all of a sudden catch on that life is nothing *but* high school. You make a fool of yourself in high school, then go to college to learn how you should have acted in high school, then you get out into real life and that turns out to be high school all over

again—class officers, cheerleaders and all."

Now the Eighties are about to start, and rock has gathered some moss—possibly because its breeding ground, High School, is full of mossbacks. Take a look at the things we once condemned as either silly or "sick" but are now back in fashion: pin-ups, spike heels, concern about skirt length (indeed, thanks to disco, a *dress code* no less), street gangs and grease, music and movies about street gangs and grease, kustom kars ("low riders," beside which tangerine-flake paint and frenched headlights have great dignity), booze, gossip, neckties (mostly for women), standup comics, booze, gossip, "wholesome" movies, a veritable PG outbreak, booze, booze, booze, and gossip. And maybe coming back soon: the draft. Also back in charge of things are a whole new set of men in gray flannel suits, only now they're 70 per cent polyester. But what really colors the late Seventies is the return of



the attitude so pervasive in High School twenty years ago: it's smart to be dumb.

You could argue that that's the normal attitude in America, if not the world, but it did seem to be on the run ten years ago. That piece of Vonnegut's, ironically titled "Times Change," was an introduction to two pages (the old big pages of the *real*, pre-Felker *Esquire*; times change) of 1969 writings by High School radicals in various underground newspapers around the country, and today you might be amazed (at least anyone in the PTA would be) at how literate those kids were. Nobody would have worried about *their* SAT scores. In 1970, it was almost smart to be smart.

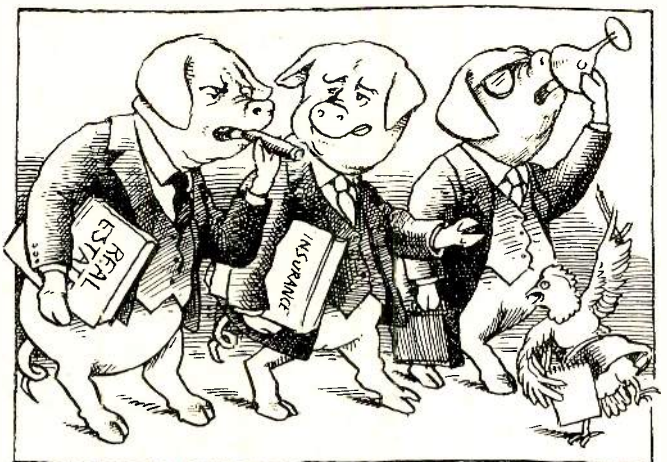
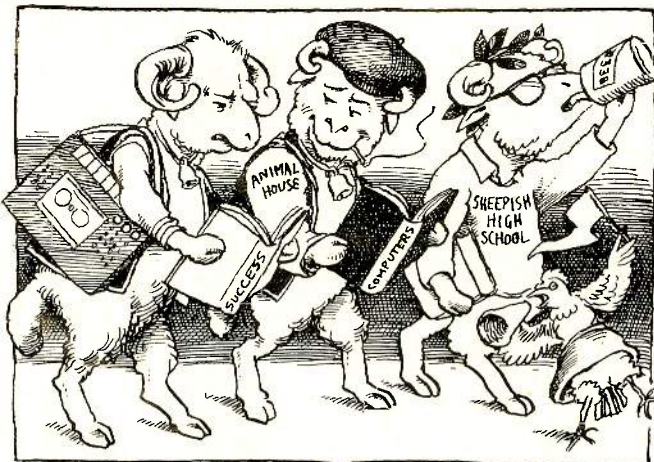
That was also a time when the term "progressive" rock actually meant something. It did not cover most rock, of course, nor did it make most of the money (the "most" of anything is mindless, even in eras like the late Sixties, which gave a lot of air time to such

pre-nerds as the Ohio Express, Gary Puckett and the Union Gap, the Strawberry Alarm Clock, and those insufferable goody-two-shoes, teachers'-pet reactionaries, the Carpenters). But, just as it appeared to Vonnegut and others that a revolution was brewing in that underground rhetoric, so it appeared to many that art, or something like it, just might come out of progressive rock. It had two of the requisites: it was *about* something and it had *passion*. It was also literate, and some even tried to make it literary. It became at least a pretender to the title of art, and so did some of the writing *about* it, which was allowed, if not encouraged, to become more arcane and more nearly intellectual than pop music making (or writing) normally becomes.

Now, as we start with the Eighties, the question of Why Johnny Can't Read has come up again, and the lyrics of pop music (even though theoretically Johnny doesn't *have* to read them)

have sunk down to the level just above Neanderthal grunts. Some will tell you that Johnny watches television all the time, and *that's* why he can't read—but book sales indicate Johnny and his mom and dad are reading more than ever. Yes, and it's *what* they're reading—gossip written in Dick-and-Jane prose—that may indicate the society is headed toward terminal boobery. Although there is some validity (and always was) in Frank Zappa's summation—"Rock journalism is people who can't write interviewing people who can't talk for people who can't read"—the fact is that the writers and readers of "rock journalism" haven't capitulated to the late Seventies as much as some other "journalism" has, or as much as most music makers have.

Musically, we start the Eighties at least as badly as we started the Sixties—probably worse; Buddy Holly and his ilk had a better excuse for writing dumb songs, for their innocence was a lot less faked than ours is. Pro-



SEVENTIES....

"A mass music, the late Seventies demonstrate, cannot be Art and will not very long even try to be."

duction now is better, which may be as much a part of the problem as it is part of the solution. But it's academic anyway, since the *manufacture* of records is more slipshod than ever and sound quality is therefore worse. Anyway, production is not *music*, any more than technical facility on an instrument is, and neither is most of the stuff on the playlists (now tight again, and back in the hands of the men in the gray flannel/polyester suits) of the radio stations, including the FM stations one formerly could at least *halfway* trust.

To go with this, we have a proliferation of gray flannel/polyester bands like Toto and Foreigner and Meat Loaf, and of plastic madmen like Ted Nugent and Eddie Money. We have "new" terms, like "power pop" to describe pale imitations of Led Zeppelin. Most of the stuff one can hear right now is not actually made by robots, but it might as well be. It has no passion and it is not *about* anything. As far as the bulk of music that gets *heard* is concerned, we are in the Shakedown Streets of a shambling New Pedestrianism, which may be poetic justice for a society that can't manage the fuel for its vehicles, or even find out how much fuel there is.

Partly, this situation evolved because something about the late Sixties was successful (success is getting what

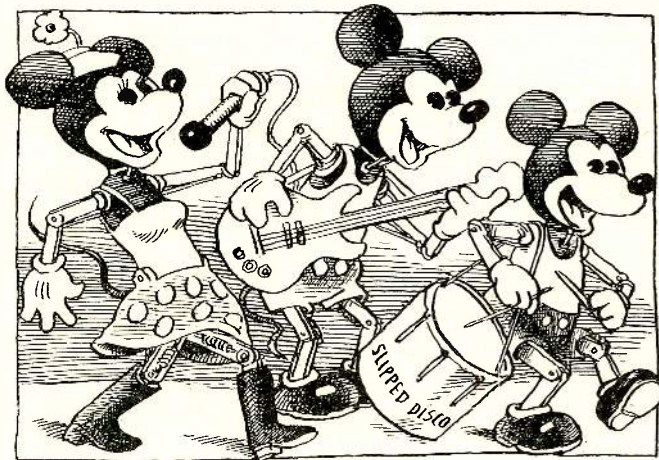
you want, while satisfaction is wanting what you get). The habitat, High School, helped produce this New Pedestrianism (and so did the computer ethos) by being the kind of leveling, egalitarian experience called for, more or less, in the rhetoric of the Sixties. We said, speaking of music, that we wanted it to be "of the people." We also wanted it to be Art. It is now obvious that there was a willfully ignored contradiction in this, probably ignored because recognizing it meant acknowledging that making Art is an elitist activity, and "elitist" is a bad word. A mass music, the late Seventies resoundingly demonstrate, *cannot* be Art and will not very long even *try* to be; it comes a lot closer to being science, just as a mass education necessarily does. Art itself may *argue* in favor of egalitarianism, but the making of it is not an egalitarian activity. Neither is the intellectual way of analyzing it. What is egalitarian is the near-universal dumbness of our High School "product" and the machine-like quality of much of the music now, virtually all disco and much punk included, and the computer-read-out prose celebrating it and everything else in such neo-proletarian publications as *Us*, the *Star*, and *People*.

It shouldn't be surprising that most of the music is turned out scientifically, or that individuality and style are having such a hard time getting into words or music. Because of the way a mass education has to be run, it inevitably will endeavor to make you appreciate standardization a hell of a lot more than you appreciate individuality and style, and the influence of computers reinforces this. As for passion, it's an insoluble problem for these modern teaching machines. Dry technique, now, that's something else. So we have technical playing ability at a high level in some of our modern bands. No one

doubts the ability of Toto or the Little River Band to copy any lick ever invented. What is in doubt is the ability of many of these people to invent anything themselves. It isn't surprising that old-line survivors are mostly the dreary machine-like formula groups like Chicago and the Doobie Brothers, or that the new "survivors" include so many that are merely following formulas thought up by someone else: Sammy Hagar, Cheap Trick, Firefall, Kansas, Styx, *et al.* Nor is it surprising that this juiceless stuff now packs the airwaves.

It would be a blessing, speaking of the airwaves, if *WKRP in Cincinnati*, the slaphappy radio station that exists only on television, were real. There Johnny Fever plays *Layla* while throwing darts at a picture of Barry Manilow. Unfortunately, the rest of television remains steadfastly ignorant on the subject of pop music—and exactly what it's doing to other aspects of the culture remains anybody's guess. We also don't know whether television exacerbates the kind of egalitarianism our computer-and-High School regimentation fosters or somehow works against it. There is reason to believe that television may be implicated in the self-centeredness of the Seventies, the Me Decade. Researchers have suggested that televising may heighten the sense of one's physical being (helping explain the long-standing affinity for doctor shows), and that could relate not only to the self-help boom but to the disco and jogging and roller-skating booms. It's probably related to the morbidity boomlet (remember Karen Quinlan) too.

BUT now the *programming* of television is trying to get into step with the dollar chase by, among other things, glorifying life at Harvard Law School



and having John Housman pronounce the word "lawyer" as if the whole profession had just been canonized. (The word still deserves, of course, to be pronounced the way it was during Watergate.) And television has proved with the Blues Brothers' mediocre album that it can still sell records, just like in the days of David and Shaun Cassidy (now that Shaun isn't on as a Hardy boy, his status with the *Tiger Beat* crowd has dropped off considerably). But mostly it seems that, as vending machines go, television is more of a competitor to pop music for our extracurricular attention than a salesman for it.

Not that pop music in the Seventies needed much help to sell. It may not have been satisfying, but it was "successful." In fact, the whole Seventies were; they sold out of practically everything, or at least sold out every chance they got. And they weren't all bad. We tend to forget the early years of a decade; what many call "the Sixties" didn't really start until 1967. Take the Seventies back more than a couple of years and you'll find that we had some good years with the women, Bonnie Raitt, Linda Ronstadt, Joni Mitchell, Emmylou Harris, Crystal Gayle, and others offsetting the gum-popping dumbness of Olivia Newton-John's approach. We discovered country rock and *Blue Eyes Crying in the Rain*, and Waylon and Willie, at least, are still worth keeping track of. We experienced the development of some articulate and stylish people who could—and still can—sell records without resorting to High School lyrics: Billy Joel, Randy Newman, Jackson Browne, Warren Zevon, Elvis Costello And some in the audience have "gone to college," in Vonnegut's friend's terms, to find out what they shouldn't have done—and college is

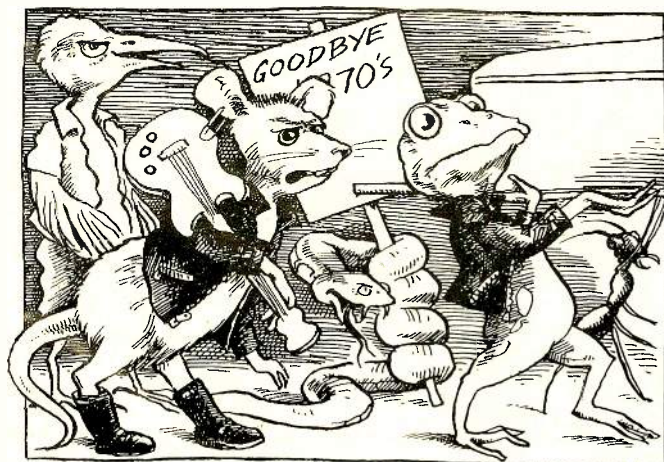
where one traditionally encounters jazz. The number of jazz musicians working for major labels as we start the Eighties, compared with the number ten years ago, is almost a revelation. High School sweetheart Joni Mitchell went to college to collaborate with the late Charles Mingus, and she'll come back to "real life" and have influence.

AND then one has to consider the action-reaction, cyclic, yin-yang nature of things. For over a century, our even-numbered decades have generally turned out to be more dangerous and more lively—more "interesting"—than our odd-numbered ones. It's turkey one day, feathers the next; flappers one decade, depression the next. Similarly, if you take up the High School metaphor you fondle a coin that has another side: After School. It's not entirely a reaction against High School, nor a complement to it; they're both parts of the whole, each containing elements of the other. Some of After School reacts against High School—punk rock, for example. Some, like disco, extends the mechanical, grinding invocation of the scientific method the establishment loves so dearly. But even disco, which symbolizes for many the assembly-line (or digital) style of the whole era, is a music created for the After School activity of dancing. One difference between the late Sixties and the late Seventies is that the Sixties tended to want to be *more* serious during High School hours and *less* serious during After School hours—to blur the distinction between the two—while the Seventies want to learn dollar-chasing techniques during High School hours and get loaded and boogie the After School hours away. These are, in other words, hardworking and decadent times.

Most of the After School decadence

is not political or even very rebellious right now, and some that is—most of punk rock, for example. Patti and Elvis and Bruce and the Clash and the Cars excepted—is so *childishly* rebellious it alienates the articulate minority, the audience it needs most, before it starts. The articulate minority, as Richard Dreyfuss told *Rolling Stone*, wants to get rid of childishness while retaining childlikeness. The articulate minority was what was "making the revolution" Vonnegut and friends thought was coming; the articulate minority now keeps Zevon and Browne in business, it got the majority to notice Costello, and it is, in all, inevitable. This means that the artsy end of the seesaw on the High School campus/playground, so long underpopulated, is bound to attract some hardy souls in the Eighties. It means a minority of the "new readers" will tire of *People's* see-Spot-run prose and look for actual writing again, a parallel to what a minority of the "new listeners" will do.

As far as pop music is concerned, decades that start badly end well—you couldn't start much worse than the Sixties did. And decades that start young and strong surrender—like the Seventies. It's almost certain that the artsy minority will crawl out of the ashes and start to act up again. Their end of the seesaw will never be as heavy as the other with its smart-to-be-dumb slugs and market researchers, of course, but it's *energy* that counts in making such a thing jiggle. And so, as surely as it rains in Indianapolis, some bunch—maybe the Class of '84, maybe the Class of '87—will come along and do some stuff musically that will get the High School establishment, the polyester programmers, and everyone else who would turn music over to robots all shook up. I'm patient; I can wait. □





RCA

□ Great Balls of Fire Department. The gentleman in the *matelot* pullover is **BRUCE SPRINGSTEEN**, and the funny-looking guy with the big ears and scared hair is **ROBERT GORDON**. The place is the Fast Lane in Asbury Park, New Jersey, where Gordon was doing a show and

Bruce pitched in for the encore. The song is Springsteen's *Fire*, which some of you know better as the recent comeback hit by the Pointer Sisters (who were *not* there, but can be heard on "Energy," Planet P-1). Reports have it that the performance was . . . um . . . incendiary.

POP ROTOGRAVURE

By Steve Simels

□ Take that, Jerry Lewis! Yes, that's country star **JOHNNY RODRIGUEZ** (his most recent is "Love Me with All Your Heart," Mercury 5011) preparing for an automated football game against a team of kids with cerebral palsy in

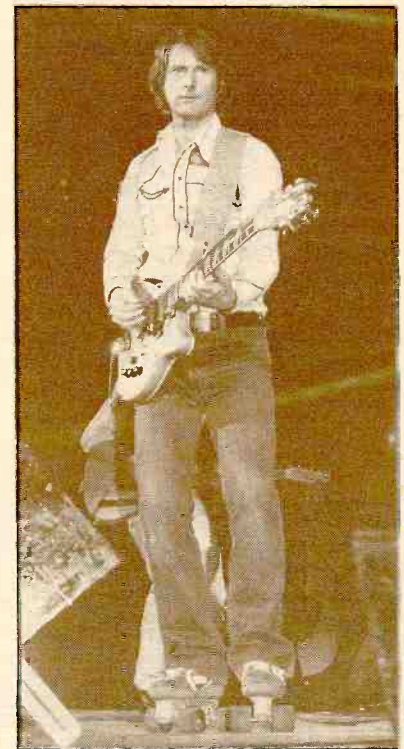
Corpus Christi, Texas. The event was part of a regional CP telethon that raised more than \$230,000—even though the kids whipped the celebs 28 to 0. But then, everyone knows that's not the sport country singers are best at.



Larry Dixon



CBS



Sheri Lynn Behr

□ Twelve-string on Wheels. That's **ROGER MCGUINN** (of "McGuinn, Clark and Hillman," Capitol SW-11910) encoring with the group in their recent gig at New York's Palladium. Note the ex-Byrd's spiffy disco footgear. The times, they are a-changin' again.

Joseph Sia



□ Battle of the Paunches. The unlikely supergroup above performed at a Long Island benefit concert (for the Eglevsky Ballet Company, no

less). Trading licks are none other than (left to right) **GORDON LIGHTFOOT**, **WAYLON JENNINGS** (his newest is "Greatest Hits," RCA

AHL1-3378), and **HARRY CHAPIN**. Careful on the cheeseburgers, guys, or you'll never make fifth position.

RCA



□ How rumors get started. No, **EMMYLOU HARRIS** (center) is *not* on tap as Grace Slick's replacement with **JEFFERSON STARSHIP**, despite the presence in this picture of (left to right) the Starship's Paul Kantner, Aynsley Dunbar, and Marty Balin, plus Balin protégé

Jesse Barrish. They all stopped backstage merely to congratulate Emmy (her latest is "Blue Kentucky Girl," Warner Bros. BSK 3318) after a gig at San Francisco's Old Waldorf. Still, you'd think they could at least have gotten her a refill.

RCA



□ Survival of the fittest. You've just got to hand it to a little lady who somehow manages to end up right there in the front row regardless of the fickle twists and turns of pop-music fate. Ex-folkie, ex-rocker, ex-country, ex-r-&-b **CHER** is now—you guessed it—into disco, and she keeps the kind of company to prove it: here she is with Tony King, RCA's director of disco marketing, and disco diva Evelyn "Champagne" King at a recent disco convention in New York.

□ Well, it wasn't the Oscars, but bluegrass virtuoso **DAVID GRISMAN** (his latest is "Hot Dawg," Horizon SP-731) knew just what to say when honored by the Mandolin Brothers instrument retailers with a special award for his "contribution to the mandolin as a contemporary instrument." Saith David (he's the heavy beard seated center): "Actually, I wanted to get Marlon Brando to accept this award for me, but he was busy." For his trouble, David snagged a sterling-silver mandolin-shaped belt buckle (not pictured). The only other time the award has been given, incidentally, was back in 1974, when the legendary Bill Monroe, acknowledged as the Father of Bluegrass, was the recipient. Prestigious company.

The Howard Bloom Organization



HOW TO STRIKE GOLD



It took Enrico Caruso forty-three years, but of late some artists seem to be able to turn the trick in as many minutes

By Barbara Jurin

AMONG those of us whose puberty rites were accompanied by the numbing clamor of a late-Fifties rock-'n'-roll band and whose perception of reality remains obscured to this day by the residual glare from a stack of twenty-year-old 45-rpm records, 1960 is remembered as a lousy year for romance. First, Paul Anka was hit by a paralyzing social disease called *Puppy Love*. Later, *Running Bear* and his Little White Dove were hit by a raging river. Then Mark Dinning's dimpled girl friend, *Teen Angel*, was hit by the Broadway Limited. By early autumn things had gotten so bad that Jimmy Charles hatched a hit of his own, *A Million to One*, simply by capitalizing on the depressing news that the odds against any of the guys down at the

malt shop ever achieving lasting happiness with little Susie were inconceivably high.

High as they were, however, million-to-one odds were puny compared with the odds against one of those 1960 song hits' earning a gold record. If 1960 was a bad year for rhinestone romance, it was disastrous for gold. More than five thousand singles were released that year, and, though plenty of them undoubtedly sold a million copies, not one was honored by the Recording Industry Association of America (RIAA) with its gold record award, symbol of a certified million-seller.

Earning a gold record required that a record company open its books to RIAA auditors and *prove* that a 45-rpm single had sold a million copies or an

LP a million dollars' worth of discs. (After 1974, the LP dollar requirement was replaced by an easier-to-document half-million copies sold.) But during the early years of the certification program, begun in 1958, the RIAA gold-mobile just couldn't get rolling. Perry Como won the first award (for *Catch a Falling Star*), and three other singles and seven LP's received certification during 1958-1959. But smash hits like Bobby Darin's *Mack the Knife*, the Everly Brothers' *Dream*, and Frankie Avalon's *Venus* were all bypassed. Instead, awards were generally given to minor MOR hits from RCA Victor, Columbia, and Capitol, the giants of the industry. Clearly, RIAA's intentions were noble, but, just as clearly, they weren't getting into everyone's books.

Then came the great shutout of 1960. None. Fortunately for gold-record fans, the situation at that point could only improve. And it did. The goldmobile got an overdue tune-up, and within a few years all was well. By 1970, fifty singles and a hundred LP's were receiving certification each year, and no record company willing to 'fess up to RIAA auditors was being barred from the gold. By January of 1979, 732 gold-record awards for singles and 1,675 for LP's had been handed out, and a new award—the platinum record—was being given for singles accumulating two million, and for LP's a million sales.

RIAA certification had been initiated partly in response to a need for accurate, industry-wide documentation of record sales. Before 1958, any artist could claim to have waxed a million-seller, but, unless he was Pat Boone, who would believe him? Pre-1958 sales figures, therefore, are to be treated with polite skepticism. But even after tossing out the suspicious claims, one is left with evidence that the first half-century of recorded sound boasted more than its share of super-sellers, and something might be learned through examining what they were.

Enrico Caruso was the first. In 1902 he recorded ten arias with piano accompaniment for the Gramophone Company of London. The recordings sold well, but it was a 1907 recutting of one of the arias, "Vesti la giubba" from *I Pagliacci*, with orchestral accompaniment, that became the first recording eventually (by 1950) to sell a million copies.

"Vesti," alas, was one of the few recordings of classical music ever to achieve that distinction. The money lay elsewhere, as Al Jolson's *Ragging the*

Baby to Sleep quickly demonstrated. Released in 1912, the record needed only one year to become what was probably the first million-seller ever.

The Twenties brought million-sellers to a few artists, among them Paul Whiteman (*Whispering*), Gene Austin (*My Blue Heaven*), Bessie Smith (*Down Hearted Blues*), and Jimmie Rodgers (*Blue Yodel*). But the record industry bottomed out during the Depression, and 1932's total sales of only six million records left precious little room for individual million-sellers.

The big bands of the late Thirties arrived in time to lift the record companies off their bottoms before it was too late. As the rest of the country stood up to dance, the recording industry sat down to count the profits. Artie Shaw reeled off nine million-sellers, Glenn Miller seven. The celebration reached its climax—and a new idea was born—on February 10, 1942, when RCA Victor presented Miller with the master disc for his smash hit *Chattanooga Choo Choo*. The master had been sprayed with gold.

Along with the bands, the crooners garnered the hits during the Forties. Perry Como, Bing Crosby, Frankie Laine, and Vaughn Monroe among them averaged four million-sellers a year during the last half of the decade. But their achievements looked pathetic soon after the rock-and-record-buying revolution hit a few years later. In 1955 there was Bill Haley's *Rock Around the Clock*, perhaps the best-selling pop single in history—claims as high as 25 million in sales have been made for this Max C. Freedman/Jimmy De Knight composition.

Today, more than 200 million singles are sold each year, but, at least on a

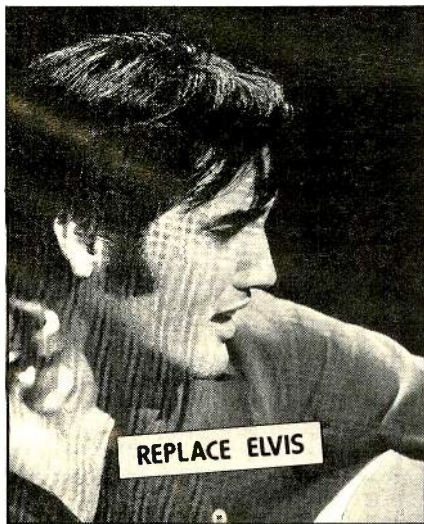
percentage basis, the gold record remains a relative rarity. Lay a million 45's side by side and you have a hundred miles of records. Now try selling them. Of more than a hundred singles released each week, one, on the average, will earn its gold. Three-fourths of them won't even make back their production costs.

Innocent songwriters and recording artists who nonetheless manage to give accidental birth to a million-selling single generally discover that the financial rewards are somewhat less than legend would have led them to expect. The songwriter will pick up a penny or two per record copy (\$10,000-\$20,000), plus a nickel each from at most 40,000 sheet-music sales (another \$2,000). Royalties from radio play and live performances will add to that total, but even a high-rolling songwriter ought to check the want ads once in a while for an additional source of income.

If the recording artist is not an established star (for whom royalty rates can reach 15 per cent), he or she can only hope to double the writer's cut. History suggests that the money had best be invested wisely: only one million-selling artist in three strikes gold a second time.

A GAINST odds like these, prospective tycoons stand a better chance of unearthing the mother lode by heading off into the Yukon with a pair of mules and a flat-bottomed pan. But for those who remain steadfast in their belief that the end of the rainbow touches earth somewhere in downtown Los Angeles, New York City, or Nashville, here are a few suggestions, based on an analysis of more than a thousand million-selling singles, to speed the quest.

● Top-20 Hints for Hits ●



1. **Replace Elvis.** A lot of people are trying, but none has yet found a way to duplicate Elvis' unparalleled success at producing million-sellers. Although Presley received only eight gold records for singles, at least twenty more of his releases sold a million before RIAA certification began. His total of twenty-eight million-sellers far exceeds that of any other individual or group. Both sides of his third RCA release, *Hound Dog* and *Don't Be Cruel*, are credited with a million sales. Both reached number one on the trade-paper Top-100 lists. *Jailhouse Rock* shot to number one the week it was released, the fastest ascent on record. And *Love Me Tender*, with a million copies on order the week before it went on sale, became the first single in history to earn a gold record before it had been heard by the public.

2. **If you can't replace Elvis, replace Bing.** Here the competition isn't so fearsome,



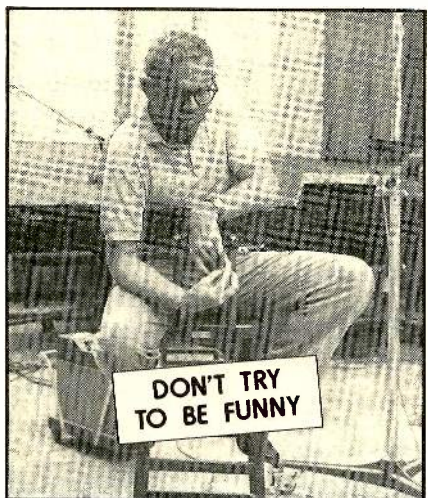
GOLD...

though Bing Crosby's achievements were as formidable as Presley's. Elvis earned more gold singles, but der Bingle holds the enviable record for total sales of all singles and albums, an estimated 400 million records worldwide.

3. Or somebody. The top ten collectors of RIAA gold record awards for singles (in addition to Elvis Presley), through December 1978:

- | | |
|---------------------------------|----|
| 1. The Beatles | 30 |
| 2. Aretha Franklin | 14 |
| 3. The Carpenters | 10 |
| 4. Elton John | 10 |
| 5. The Bee Gees | 9 |
| 6. Al Green | 8 |
| 7. Olivia Newton-John | 8 |
| 8. Creedence Clearwater Revival | 7 |
| 9. Paul McCartney | 7 |
| 10. Three Dog Night | 7 |

(Note: various combinations of Osmond family members have together received ten gold single awards.)

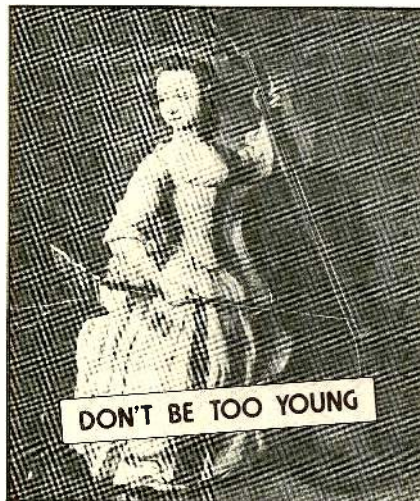


Stan Freberg

4. Don't be a songwriter—be two (or more) songwriters. The top five pop songwriters (in total sales) have all been teams: John Lennon and Paul McCartney (*Yesterday, Hey Jude, I Want to Hold Your Hand*); Fats Domino and Dave Bartholomew (*Ain't That a Shame, I'm Walkin', Whole Lotta Loving*); Eddie Holland, Lamont Dozier, and Brian Holland (*Baby, I Need Your Loving, Stop! In the Name of Love, You Can't Hurry Love*); Hal David and Burt Bacharach (*Raindrops Keep Fallin' on My Head, Alfie, What the World Needs Now Is Love*); and Jerry Leiber and Mike Stoller (*Hound Dog, Charlie Brown, Jailhouse Rock*).

5. Don't try to be funny. Only three strictly comedy singles (not simply humorous

songs) have sold a million: Stan Freberg's *St. George and the Dragonet* (1958), Buchanan and Goodman's *Flying Saucer* (1956), and Johnny Standley's *It's in the Book* (1952). Only 2 per cent of the RIAA-certified gold LP albums have been comedy ventures, with Bill Cosby's seven leading the pack and Steve Martin's two being the most recent.



Cellist Benjamin Hallet, 1749

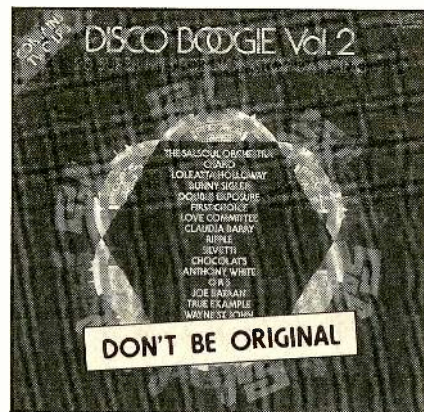
6. Don't try to be serious. For classical music, the million-seller story began with Caruso and nearly ended there. The only smash LP has been Van Cliburn's recording of Tchaikovsky's Piano Concerto No. 1



(1958), now approaching three million in sales. Otherwise, RIAA awards have been earned only by Eugene Ormandy and the Philadelphia Orchestra for Handel's *Messiah* (1963), Antal Dorati and the Minneapolis Symphony for the *1812 Overture* (1963), and Walter Carlos for his "Switched On Bach" (1969).

7. Don't even try to be half-serious. One whimsical afternoon in 1935, Arthur Fiedler was leafing through a stack of music at a clearance sale in a Boston music house. He

happened onto a nifty little tango by a Danish composer named Jacob Gade and decided to purchase the music. Fiedler orchestrated the piece and recorded it with the Boston Pops. *Jalousie* became the monster hit of the year, selling over a million copies. Unfortunately, neither Fiedler in particular nor light orchestral music in general ever did so well again. Leroy Anderson's 1951 hit, *Blue Tango*, came closest. It wasn't a monster, but it sold a million. *Moral*: If you insist, make it a tango.



8. Listen to the sounds of the city. Philadelphia Freedom, Hollywood Swinging, Winchester Cathedral, Spanish Harlem, Wichita Lineman, The Poor People of Paris, The Night Chicago Died, The Battle of New Orleans, Chattanooga Choo Choo, I Left My Heart in San Francisco, Galveston, Kansas City, Windy (an apparent reference to Chicago), and Calcutta have all been million-sellers.



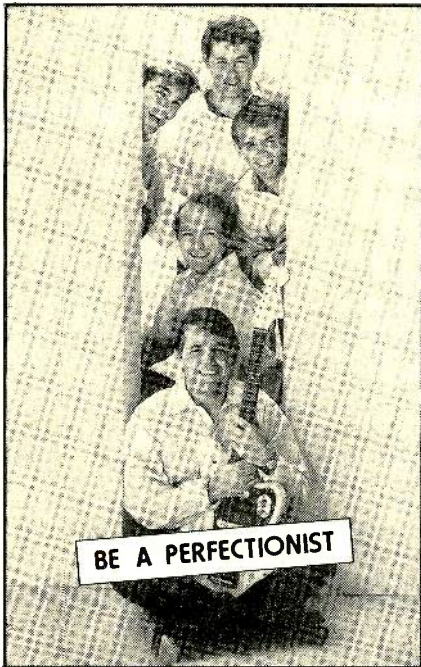
Lawrence Welk

9. Be original. A pair of closely related artists—Original Cast and Original Soundtrack—have been consistent winners in the gold rush for the past thirty years. The first-ever million-selling LP was *Oklahoma!*, recorded by Original Cast in 1949. Other gold hits by the group include *West Side Story* (1962), *My Fair Lady* (1964), and *Sesame*

Street (1970). Original Soundtrack has scored with, among others, *Thoroughly Modern Millie* (1967), *Easy Rider* (1970), *Star Wars* (1977), and *Close Encounters of the Third Kind* (1978).

10. Don't be original. Sell someone else's songs. K-Tel Corporation annually sells more than ten million "compilation albums" of songs that are already hits.

11. Don't be too young. The only preschooler ever to rack up a million sales was Osamu Minagawa, a six-year-old Japanese, with his 1969 *Kuro Neko No Tango*. (See? Another tango!)



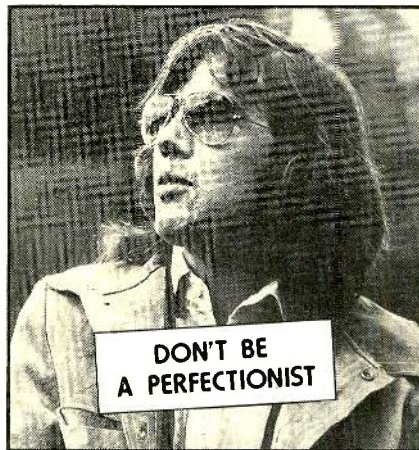
The Beach Boys

12. Don't be too old. No one over sixty years of age has earned an RIAA gold single award. Lawrence Welk came closest in 1961: at age fifty-eight he won a gold for *Calcutta* (no relation, of course, to the notorious skin show *Oh, Calcutta!*). However, Gene Autry was sixty-two in 1969, the year he finally received his gold for *Rudolph the Red-Nosed Reindeer*, a song he had recorded in 1950. *Rudolph* has racked up more than 100 million sales, the most of any single in the past thirty years.

13. Stay high. In April 1964, the Beatles owned the top five hits in the country: *I Want to Hold Your Hand*, *She Loves You*, *Please, Please Me*, *Can't Buy Me Love*, and *Twist and Shout*. Gordon Jenkin's *Goodnight Irene* (1950) stayed at number one on the trade-paper charts for thirteen weeks, the longest consecutive run ever. Nat King Cole's *Too Young* (1951) topped *Your Hit Parade* for twelve weeks, a record never broken during the twenty-three-year run of the radio/TV show.

14. Be a perfectionist. In 1966, the Beach Boys needed over ninety hours in a record-

ing studio and eighty miles of tape to produce their three-and-a-half-minute gold single *Good Vibrations*.



Jimmy Webb

15. Don't be a perfectionist. Jimmy Webb wrote *Up, Up and Away* in all of thirty-five minutes.

16. Record White Christmas. Your version may sell only the one copy you buy, but that shouldn't deter you from boasting to your friends that the song you recorded is the biggest seller (135 million copies) of all time.



Bettmann Archive

17. Watch the pocketbook. The Beach Boys spent \$40,000 producing *Heroes and Villains* (1967) and didn't get a million-seller. Engineers Hamilton O'Hara and Don Foster spent nothing producing *Three Minutes of Silence* (1953) and didn't get one either.

18. Be seasonal. At least eight Christmas and Easter songs have sold a million copies: *White Christmas* (two versions—Freddy Martin, 1942, and Bing Crosby, 1946); *'Twas the Night Before Christmas* (Fred Waring, 1942); *I'll Be Home for Christmas* (Bing Crosby, 1943); *Christmas Island* (Guy Lombardo, 1946); *Easter Parade* (Guy Lom-

bardo, 1947); *All I Want for Christmas* (Spike Jones, 1948); *I Saw Mommy Kissing Santa Claus* (Jimmy Boyd, 1952); and *Rudolph the Red-Nosed Reindeer* (Gene Autry, 1950). As should be apparent to any observant reader, if you're going to use this system, use it thirty years ago.

19. Let John do it. Elton John, Olivia Newton-John, Robert John, Sammy Johns, and *Big Bad John* together have collected twenty-one gold singles. Letting Simon do it (Paul, Carly, and Joe) is not as productive (twelve).



Olivia Newton-John

20. Choose your title wisely. Nothing sells a record like a clever title. "Songs I Sing on the Jackie Gleason Show," "Welcome to the LBJ Ranch," and "The Stripper and Other Fun Songs for the Family" have each earned RIAA gold LP awards.

Experience has shown that colorful titles are excellent bets. *Green Door*, *Mr. Blue*, *Band of Gold*, *Goodbye Yellow Brick Road*, and *Charlie Brown* have each sold a million copies, as have more than fifty other songs whose titles mention colors. At other times, the "inky-dinky" approach works nicely: *Hanky Panky* (Tommy James), *Boogie Woogie* (Tommy Dorsey), and *Mellow Yellow* (Donovan) are all million-sellers.

If, however, you insist on a creative, thought-provoking title that nevertheless guarantees commercial success, then by all means learn the intricacies of the "doobie-doobie" system. A few million-selling examples: *Sugar, Sugar* (the Archies), *Chewy Chewy* (Ohio Express), *Woman, Woman* (Union Gap), *Monday, Monday* (the Mamas and the Papas), and the unforgettable *Beep Beep* (the Playmates).

The ultimate doobie-doobie, the "doobie doobie doobie," requires restraint and should be attempted only by masters of the form: *Yummy Yummy Yummy* (Ohio Express), *More, More, More* (Andrea True Connection), *Dance, Dance, Dance* (Chic), and *You You You* (the Ames Brothers). If all else fails, call your song *Stardust*. □

Barbara Jurin, a free-lance writer based in California, expects her recording of *White Christmas* to be released next December.



CLASSICAL DISCS AND TAPES

Reviewed by RICHARD FREED • DAVID HALL • GEORGE JELLINEK • PAUL KRESH
STODDARD LINCOLN • ERIC SALZMAN

J. S. BACH: *Chromatic Fantasy and Fugue in D Minor* (see Collections—Youri Egorov)

J. S. BACH: *French Suites (BWV 812-817)*. Gustav Leonhardt (harpsichord). ABC/SEON AX-67036/2 two discs \$15.98.

Performance: **Mannered**
Recording: **Excellent**

One cannot help but admire Gustav Leonhardt's strict adherence to the ideal of authentic performance practice and his preoccupation with detail. Each ornament here is carefully realized and precisely executed, each phrase is minutely articulated, the flow of passage work is controlled by the principles of rhythmic inequality, the first note of each bar is lingered upon, and each cadence makes use of the agogic accent. These devices are part and parcel of Leonhardt's natural musical language, which no other harpsichordist speaks as fluently. One can, however, question the musical results when every movement is subjected to this treatment. When it works, it is magnificent, bringing a limpid, brooding quality to such movements as the allemande from the Second Suite and the sarabande from the Fifth Suite. But Bach also wrote long lines that require a steady rhythmic drive. Too minute an articulation together with rhythmic hesitation halts their natural flow and destroys the overall contour. Exactly that is the case in the air from the Fourth Suite and the bourrée

from the Sixth. Bach's suites are, after all, *dance* music—idealized, of course, but even so, the rhythmic patterns must be clearly defined within a steady beat. Too much hesitation will destroy the flow of an allemande, the bounce of a gavotte. Leonhardt's reading of the French Suites is undeniably a remarkable demonstration of historic authenticity, but somewhere along the line he has lost contact with the dance. S.L.

RECORDING OF SPECIAL MERIT

J. S. BACH: *Toccatas in D Minor (BWV 913), C Minor (BWV 911), E Minor (BWV 914), G Minor (BWV 915), and G Major (BWV 916)*. Trevor Pinnock (harpsichord). DEUTSCHE GRAMMOPHON ARCHIV 2533 402 \$8.98, © 3310 402 \$8.98.

Performance: **Superb**
Recording: **Perfect**

J. S. BACH: *Toccatas in D Major (BWV 912), F-sharp Minor (BWV 910), and D Minor (BWV 913)*. Glenn Gould (piano). COLUMBIA M 35144 \$7.98, © MT 35144 \$7.98.

Performance: **Vintage Gould**
Recording: **Brittle**

Of all the harpsichordists today who play on historic instruments and observe authentic Baroque performance practices, Trevor Pinnock is the most musically convincing. Gifted with a brilliant technique, rhythmic verve, and an understanding of how to make the harpsichord sound lyrical, Pinnock brings his full talent to the ever-shifting moods and contrasts of the Bach toccatas. Because he is playing the music on the instrument for which it was written and in a style consonant with Bach's own, one feels that the music and performer here are one, that Pinnock is merely underscoring Bach's intention and projecting it to the listener. Although the toccatas are early works, occasionally padded and falling into lengthy, at times too lengthy, sequences, they are among Bach's most dramatic harpsichord creations. Pinnock brings out their theatricality as well as their structural aspects in his superb performances.

Turning to Glenn Gould's reading of the toccatas, one must bear in mind, first, that he is playing them on the piano and must perforce make certain compromises, and second, that no matter what Gould plays, he indulges his own mannerisms. And yet, he always brings something new and different to the music he plays, and so it is with these Bach toccatas. There are passages here full of clarity and beauty, and others that seem willfully perverse. Gould's strongest points are his remarkable control of touch and his ability to set forth Bach's polyphony through the simultaneous use (in different lines) of legato and staccato. This is best seen in the fast movements, where he etches Bach's subjects in hard steel and keeps them intact no matter what the surrounding figuration may be. The slow sections, on the other hand, are played so slowly, and occasionally so softly, that one loses the flow of the music from beat to beat. There is simply not enough sound to sustain the suspensions that are the very web of Bach's dissonance. The most controversial playing occurs in the rhapsodic passages. Gould tries everything, often indulging in arpeggiations and in devices that would make a harpsichordist blush.

Comparing these two records is like comparing apples and oranges. Those interested in authenticity of style and instrument will certainly favor the Pinnock disc. Those who like Gould will find this a fine vintage. Part of the "vintage" sound, incidentally, is his singing—which begins even before the playing. S.L.

BEETHOVEN: *Piano Sonata No. 23, in F Minor, Op. 57 ("Appassionata"); Piano Sonata No. 4, in E-flat Major, Op. 7*. Russell Sherman (piano). SINE QUA NON SAS 2023 \$6.98.

Performance: **Altogether superb**
Recording: **Poor disc processing**

These are presumably the same performances that were originally issued on Advent cassettes with different couplings (Op. 7 on E1057, Op. 57 on E1060). Musically they are of a superior order. The Op. 7 sonata gets a wonderfully spirited treatment of its opening

Explanation of symbols:

- Ⓡ = open-reel stereo tape
- Ⓢ = eight-track stereo cartridge
- Ⓒ = stereo cassette
- Ⓚ = quadraphonic disc
- Ⓜ = digital-master recording
- Ⓛ = direct-to-disc recording

Monophonic recordings are indicated by the symbol Ⓜ

The first listing is the one reviewed; other formats, if available, follow it.

movement, a flawless reading of the slow movement, a revelatory one of the third movement (with its remarkable trio), and a zestful handling of the finale. The much-abused *Appassionata* goes equally well, if not better. The pacing and rhythmic detail in the opening movement put right many of the assaults this music has suffered in the past, and it is good to hear the slow movement done with proper attention to Beethoven's *con moto* indication. And the steady, not-too-fast pacing of the finale makes the mad "Hungarian dance" conclusion very effective.

Unfortunately, I must recommend passing up this disc version in favor of the cassettes, which are still available, for the mastering and pressing leave much to be desired. The Op. 7 sonata is afflicted throughout with pre-echo, post-echo, etc., and the beginning on my copy sounds gritty and swishy. The Op. 57 fares somewhat better, but there are no spacing grooves between movements (or label designations for them). *D.H.*

BEETHOVEN: *String Quintet in E-flat Major, Op. 4; String Quintet in C Minor, Op. 104.* Suk Quartet; Karel Špelina (viola). SUPRAPHON 1 11 2128 \$8.98 (from Qualiton Records, Ltd., 65-37 Austin Street, Rego Park, N.Y. 11374).

Performance: **Good**
Recording: **Good**

Most of us know only one Beethoven string quintet, the one in C Major, Op. 29. The reason the two on this disc are so seldom heard is that they tend to be regarded as superfluous, since both are actually adaptations or arrangements of works Beethoven composed originally for different performing ensembles. The C Minor Quintet, Op. 104, will be recognized as the Piano Trio in C Minor, Op. 1, No. 1, composed before 1795; the quintet version was produced in 1817. The Quintet in E-flat Major, Op. 4, is a similar adaptation, made in 1796, of the Wind Octet in E-flat composed four years earlier and published posthumously as Op. 103. In both cases Beethoven seems to have reworked the material thoroughly for the new medium, just as Ravel did a century later in orchestrating his piano works; neither of these quintets betrays its origins except in the familiar themes themselves, and the anonymous annotator makes a case for the superiority of Op. 4 to its wind ancestor. There is only one other current version of Op. 4 (in a Beethoven chamber-music collection, Vox SVBX-579), and there has been no recording of Op. 104, it appears, since the one by the Pascal Quartet with Walter Gerhard was retired by Concert Hall more than twenty years ago. Anyone who cares to investigate these works will find this new Supraphon disc more than a mere convenience: the Suk Quartet (named for the composer Josef Suk and unrelated to the famous trio headed by his grandson of the same name) and Karel Špelina give convincing accounts of both, and they are very pleasantly recorded. The cellist, it might be said, shows a certain reluctance to assert himself, but this is less noticeable if the Vox and Concert Hall recordings mentioned above are not available for comparison. *R.F.*

BERLIOZ: *Béatrice et Bénédict.* Janet Baker (mezzo-soprano), Béatrice; Robert Tear (tenor), Bénédict; Christiane Eda-Pierre (soprano), Héro; Helen Watts (contralto), Ursule; Thomas Allen (baritone), Claudio; Jules

Bastin (bass), Somarone; Richard Van Allan (speaker), Leonato. John Alldis Choir; London Symphony Orchestra, Colin Davis cond. PHILIPS 6700 121 two discs \$17.96.

Performance: **Soft, luxurious**
Recording: **Plush**

Like Verdi, Berlioz ended his musical days with a comedy. *Béatrice et Bénédict* has something of the same autumnal glow as

Falstaff; both are late Shakespearean masterpieces about the human comedy, unexpected testaments to a smiling, humanistic view of life from composers better known for the expression of tragedy and anguish.

Béatrice et Bénédict was written for the inauguration of a new theater at the spa of Baden-Baden in Germany, where Berlioz was well regarded and often performed—quite unlike the way he was treated back home in



Herbert von Karajan with his new discovery

Prodigy Anne-Sophie Mutter

LIKE competition winners, child prodigies come and child prodigies go, and only a few survive their initial celebrity as curiosities to build significant careers. On the strength of her initial recording of two Mozart concertos (No. 3, in G Major, and No. 5, in A Major) with Herbert von Karajan and the Berlin Philharmonic, young Anne-Sophie Mutter would appear to be no mere prodigy, but a born fiddler and a real artist destined for a prominent place in the violinistic pantheon. That she was only fourteen when she taped these performances is impressive, all right, but the musicianship displayed in the Deutsche Grammophon recording would be impressive from a violinist of any age. (We might be reminded that Joseph Joachim was thirteen when he made his famous London debut in the Beethoven concerto, with Mendelssohn conducting, that Yehudi Menuhin made his New York debut in the same concerto at age eleven, and that Mozart, after all, was not that much older—only nineteen—when he composed his violin concertos.) Mutter's tone is big and vibrant (now and then the focus is a little too close, so that she almost dwarfs the orchestra); her technique is phenomenal, and throughout both works she shows the maturity and understanding one hopes for from a seasoned artist, together with the exhilarating sense of joyous discovery which is by no means assured by mere youth.

Karajan discovered the young violinist three years ago at the Lucerne Festival and within a year presented her twice at Salzburg and once in Berlin, where these recordings were made. Theirs is as happy a collaboration

as his expression in the record-jacket photo suggests. Mutter, in the same picture, suggests both the serenity and the poise of a Baroque angel; she plays like an angel, too, if perhaps a little more like a Romantic one in the slow movement of K. 216 (a very expansive approach) and the Joachim cadenzas in the first movements of both works. But what magnificent exuberance and style in the outer movements of the G Major! And what a glorious Fifth! What consistently ravishing tone, what utter command of the instrument, what spontaneity and inner radiance! There is no other coupling of these two concertos quite so appealing as this one—and, considering the distinction of the various competitors, that is saying quite a bit.

At the ripe age of sixteen, Mutter is to make her American debut in a few months. Her parents are wisely restricting the number of appearances she is allowed to make in these tender years, and she will not be overexposed on records. If this young lady makes one record a year until she is in her mid-twenties, each is likely to be a gem. In the meantime, her first is a sensational debut, just the sort of thing to put new life into the most jaded of listeners, and just about as "basic" a release as I can imagine. —Richard Freed

MOZART: *Violin Concerto No. 3, in G Major (K. 216); Violin Concerto No. 5, in A Major (K. 219).* Anne-Sophie Mutter (violin); Berlin Philharmonic Orchestra, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON 2531 049 \$8.98, © 3301 049 \$8.98.

France. A bitter and defeated man, he wrote almost nothing else in the next six or seven years before his death in 1869.

Whatever the composer's feelings about the way life had treated him, there is no trace of them in his opera. The text was arranged by Berlioz from *As You Like It*, not precisely as a setting of the play but as an adaptation of one of its principal motifs. Béatrice and Bénédicte are a clever pair of adversaries, sexual and otherwise, whose acid repartee only masks a surprising depth of feeling. Modern people, like Elizabethans, are supposed to be cool and clever; they know better than to let their feelings go or fall in love, that greatest of all foolish illusions. Of course, though, they *do* have feelings, and when they fall, they fall mightily. Such a subject might have made a wonderful Ernst Lubitsch film (as a matter of fact it did, and more than once). It is equally susceptible to a comic-opera treatment at the hands of the only nineteenth-century composer who could—if he had been allowed—have created a humanistic music drama in opposition to Wagner.

Béatrice et Bénédicte is written as an operetta; that is, spoken dialogue alternates with set numbers. But these numbers are far more than mere songs and duets. The heart of the piece is a sequence that includes a sparring duet between the protagonists; a wonderful, bantering trio for Bénédicte and two taunting friends; a not very Shakespearean (but indubitably Berliozian) parody of a musical pedant of the old school which is amusing and affectionate; Bénédicte's moment of emotional realization, full of fire and verve; an exquisite vocal Nocturne that closes Act I; and more. These arias, genre pieces, and ensembles set the scene, suggest character, move to action, and, above all, express intense feeling. The dialectic of the piece is always the same: intellectual wit vs. intense, romantic emotion. The musical expression of these warring sentiments is exquisite.

I would call this performance rich, almost luxurious in sound and quite emotional in feeling but lacking in wit and verve. The singing is exceptional, the orchestral sound sumptuous. The spoken dialogue (fortunately largely cut) suffers through a variety of approximations to acceptable spoken French. The obvious exception is Jules Bastin, the only real Frenchman in the cast (Christiane Eda-Pierre, the charming Héro, is from Martinique). Bastin speaks, sings, and performs in a manner completely different from the rest of the cast; this is, of course, dictated by the role, but there is also a difference in style.

The problem with French opera (not just neglected Berlioz, but all of it) is that the genre no longer produces enough high-quality performers of its own, and, unlike Italian and German opera, which have become truly international, it is very difficult for foreigners to master. This is a warm, plushy, and musical recording that puts a great neglected work back on a pedestal, but it does not catch quite all the ingredients of its charm: that certain *je ne sais quoi*, that toss of the head (and tear in the eye), that wit and *esprit* combined with deep emotion that is the hallmark of Berlioz's final and most engaging offspring. E.S.

CHOPIN: *Fantasy in F Minor, Op. 49; Etudes in E Major and G-flat Major, Op. 10, Nos. 3 and 5* (see Collections—Youri Egorov)

FREEMAN: *String Quartet* (see GILLIS)

GILLIS: *Tulsa, A Symphonic Portrait in Oil*. Vienna Tonkünstler Orchestra, H. Arthur Brown cond. **GLANVILLE-HICKS:** *Three Gymnopédies*. **RUDHYAR:** *Sinfonietta*. Berlin Radio Symphony Orchestra, Jonel Perlea cond. **FREEMAN:** *String Quartet*. Koeckert Quartet. **VARÈSE SARABANDE** ® VC 81046 \$7.98.

Performance: **Good**
Recording: **Excellent mono**

It has been disappointing to those of us who became music lovers when his music was popular that the works of Don Gillis, who died in 1977, seemed to have vanished from the face of the earth. The classical-music radio stations stopped playing his carefree *Symphony No. 5½* (written in 1947), his Seventh and Eighth Symphonies (1949), and even his corny cantata *This Is Our America* (1950).



HECTOR BERLIOZ

Many of his works were recorded by London Records in the Fifties, but this rerelease of *Tulsa* (originally on the Remington label), subtitled with characteristic mischief "A Symphonic Portrait in Oil," marks the first time any of his pieces has appeared in Schwann for years. Like Gillis' other breezy, lighthearted scores, *Tulsa* is a vivid rouser. There is a pastoral episode evoking the American landscape before it was cluttered up with cities, a section bristling with bugles and cannonfire depicting the struggle for the territories, a movement marking the "bringing in" of an oil well, and a patriotic finale complete with parade and square dance.

The rest of the record doesn't quite measure up to *Tulsa* in terms of deftness or dash. Peggy Glanville-Hicks' three *Gymnopédies* (the reminder of Satie's superb sketches is unfortunate) were written as fillers for CBS radio broadcasts and sound it, Dane Rudhyar's *Sinfonietta* is like an unwelcome guest belching one's day with bad news, and John Freeman's string quartet is competently written without being particularly distinctive (one would need to hear his settings of poems by Melville, Joyce, and Cummings to get a better fix on his style). The Vienna Tonkünstler Orchestra under H. Arthur Brown does entirely right by Gillis. The Berlin Radio Symphony

under Jonel Perlea plays the Rudhyar work conscientiously and brings out the quiet sweetness in Glanville-Hicks' *Gymnopédies*, and the Koeckert Quartet seems at home with Freeman's old-fashioned, crepuscular tonalities. The sound is remarkably good for a mono reissue (the Freeman alone was not previously released). Varèse Sarabande is to be congratulated for resisting the temptation to rechannel the originals for phony stereo. P.K.

GLANVILLE-HICKS: *Three Gymnopédies* (see GILLIS)

GOULD: *Spirituals for Orchestra; Foster Gallery*. London Philharmonic Orchestra, Morton Gould cond. **CRYSTAL CLEAR** ⊕ CCS 7005 \$12.

Performance: **Brilliant**
Recording: **Stunning**

As composer, pianist, and conductor, Morton Gould has a well-earned reputation in American music. Several of his scores, like those for the ballets *Interplay* and *Fall River Legend*, are especially distinguished, and none is more so than his *Spirituals for Orchestra*. This 1941 work scorns the easy route of actual quotation (there is only an allusion to *Shortnin' Bread*), and draws instead on the folk spirit for a suite of exceptional vitality and dynamic range. The five movements—*Proclamation*, *Sermon*, *Little Bit of Sin*, *Protest*, and *Jubilee*—build to a bright and brassy climax, and hearing the work on this direct-to-disc recording is a rather thrilling experience, with pianissimos unmarred by the intrusion of the slightest alien sound, crescendos resounding as sharply and clearly as in any concert hall.

Side two is devoted to a suite from Gould's thirteen-movement *Foster Gallery*, a far more heavy-handed effort dating back to 1939. The Stephen Foster melodies suffer more than they benefit from the overwrought treatment they receive; the result is a betrayal of their innocence. Gould shows off his skill as an arranger without really placing that skill in the service of the material. But this performance too is brilliant, with superb playing by the London Philharmonic. Indeed, the sumptuous sound is alone enough to make the disc worth hearing. P.K.

HANDEL: *Alexander's Feast*. Felicity Palmer (soprano); Anthony Rolfe Johnson (tenor); Stephen Roberts (bass); Bach Choir, Stockholm; Concentus Musicus, Vienna, Nikolaus Harnoncourt cond. **TELEFUNKEN** 6.35440, two discs \$17.96, © 4.35440 \$17.96.

Performance: **Mannered**
Recording: **Clear**

By now Nikolaus Harnoncourt's style is so familiar that one knows exactly what to expect: the use of early instruments, double dotting and rhythmic alterations, heavily accented down beats, minute articulations, and rapid withdrawal from a note once it is sounded. While these practices are valid in themselves, one can justly question the degree of their application. Harnoncourt, a pioneer of this style, seems to use them didactically to prove a point rather than adapting them to fit the needs of the musical expression. When the style fits, the result is magnificent; when it does not, it is frustratingly mannered. Handel's *Alexander's Feast* is designed to demonstrate all the passions that music can evoke. (Continued on page 98)



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Hermann Prey and Edith Mathis

Alfonso und Estrella

SUCCESS on the lyric stage forever eluded Franz Schubert despite his relentless pursuit of it. One successful opera or operetta could have ended his persistent financial woes, but his theater works, which he turned out in characteristic profusion, failed to capture a Viennese audience accustomed to Italian operas on the Rossini model. *Alfonso und Estrella*, a full-length opera, was not even produced in Schubert's lifetime. Its rejection was an especially hard blow, for both Schubert and the librettist, his friend Franz von Schober, valued it very highly.

Angel's splendid new recording (an all-round first) reveals the opera's theatrical flaws. It starts in an undramatic cantata fashion and never develops into a real drama at all. Compared with Rossini's earthiness or Weber's vigor, *Alfonso und Estrella* has a fairy-tale-like innocence. The characters are hard to accept as identifiable human beings—the representatives of goodness and villainy are just not very persuasive. The composer of *Erkönig*, *Aufenthalt*, and *Der Atlas* was apparently unable to imbue this gentle tale with utterances of similarly striking power.

On a purely musical level, however, *Alfonso und Estrella* is irresistibly beautiful. The vocal writing is exquisite, and some of the melodies—such as the duet between exiled King Troila and his son Alfonso, the ballad "Der Jäger ruhte hingegossen," and the love duet between Alfonso and Estrella—are nothing short of heavenly. As for the orchestral writing, it is on the level one would expect from a Schubert about to embark on his *Unfinished* Symphony and *Rosamunde*.

and in such a large-scale work one is presented with a good demonstration of just where the Harnoncourt style is effective and where it is mere mannerism.

The star of this performance is tenor Anthony Rolfe Johnson, whose voice embodies the perfect balance of the heroic and lyric needed for Dryden's measured verses. His diction is excellent, and his vocal coloration

Whatever reservations you may harbor about this opera as you listen to its opening scenes are likely to disappear before the end of side one. From then on, your critical faculties will succumb to the endless flow of aural delights.

I am sure it is no accident that the recording's exemplary cast is made up of expert lieder interpreters. Edith Mathis and Peter Schreier are flawless in the title roles, and Dietrich Fischer-Dieskau is in his element in a part that does not tax his vocal resources. And where else can one hear two such Schubertians as Fischer-Dieskau and Hermann Prey sing a duet? Even Theo Adam, as the villainous Adolfo, manages to shade his bulky tones with admirable control. The minor roles are excellently done too, and the chorus and orchestra are outstanding and beautifully balanced. It was obviously a labor of love for conductor Otmar Suitner.

LET us then forget about Schubert's shortcomings as a dramatist and instead be grateful that we can savor the purely musical beauties of *Alfonso und Estrella* in such an inspired performance. —George Jellinek

SCHUBERT: *Alfonso und Estrella*. Hermann Prey (baritone), Mauregato; Edith Mathis (soprano), Estrella; Dietrich Fischer-Dieskau (baritone), Troila; Peter Schreier (tenor), Alfonso; Theo Adam (bass), Adolfo; Magdalena Falewicz (soprano), a Girl; Eberhard Büchner (tenor), a Youth; others. Berlin Radio Choir and Berlin State Orchestra, Otmar Suitner cond. ANGEL □ SCLX-3878 three discs \$23.94.

reflects each of the ode's exaggerated moods. Soprano Felicity Palmer strives for the same effect, but her constant fussing over small details is more appropriate to German lieder than to Handel's clean lines, and she has some difficulty with initial pitches and slurring. Bass Stephen Roberts is splendidly bombastic. The Bach Choir of Stockholm has a fine, clear sound, but their attempt to accent

first beats and draw away from long notes in imitation of the old instruments can, at times, produce a queasy sensation in the listener.

Although there are some ravishing moments in this oratorio, a lot of the music is routine. Perhaps Dryden's imagery was rather too abstract to fire Handel's complete emotional involvement. Nonetheless, even routine Handel evokes a splendid vision, and to hear it under Harnoncourt's direction is an interesting experience, though not an altogether satisfying one. S.L.

HAYDN: *Missa Sancti Nicolai*; *Missa Brevis in F Major*. Judith Nelson, Emma Kirkby (sopranos); Shirley Minty (contralto); Rogers Covey Crump (tenor); David Thomas (bass); Choir of Christ Church Cathedral, Oxford; Academy of Ancient Music, Simon Preston cond. L'OISEAU-LYRE DSLO 538 \$8.98, © KDSLCL 538 \$8.98.

Performance: **Charming**
Recording: **Mellow**

The *Missa brevis* was a response to the impatience of an elegant and intellectual age with the tedium of the required church services. An abbreviated text, good fast tempos, even doubling up on the words—different portions of the text simultaneously in different parts!—all helped to cut a two- or two-and-a-half-hour service to a neat thirty minutes.

The master of the *Missa brevis* was undoubtedly Joseph Haydn. Haydn could set the age-old Catholic texts in the most elegant, gracious rococo curlicues or classical symmetries without the slightest sense of disrespect. There is no real distinction here between the sacred and the secular; Haydn's church work is like his other music, which is to say charming, witty, entertaining, always attractive, never boring. Isn't it just as well to praise God with wit, technique, and beauty as with some forced re-creation of antique piety? That, at least, was the sentiment of the age.

The *Missa Brevis* in F Major is one of Haydn's earliest surviving works, dating from 1749 when the composer was only seventeen. The enchanting *Missa Sancti Nicolai*, written in 1772, has a kind of pastoral, Christy quality undoubtedly connected with its date and circumstances. December 6 was consecrated to St. Nicholas, and it was thus the name-day of Haydn's patron, Prince Nicholas Esterházy; Haydn composed the *Missa Sancti Nicolai* as a birthday surprise—as well as a sort of musical thank-you note for the prince's ordering the removal of the court back to winter quarters (remember the story of the *Farewell* Symphony). The use of triple meters, including the unusual 6/4 time, and the gorgeous, even rhapsodic quality of the solo vocal writing give the work its special character and charm.

The Academy of Ancient Music, which uses only authentic old instruments or modern copies played in the old manner, produces a mellow sound quite distinct from that of modern orchestras. The singing here also has a rounded, blended tone of great sweetness and beauty, though I would prefer a little less tastefulness and a little more bite. The soloists, especially, sound too restrained and well-behaved; modern High Church Anglican singers rather than the Italian opera singers who actually performed this music with Haydn (and who certainly recognized few distinctions between the church platform and the

(Continued on page 100)

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theater). All in all, this is a mellow and charming recording, but Haydn has been a bit short-changed by the Olde Musicke syndrome. *E.S.*

ICHIYANAGI: Arrangements for Percussion Player (see TAKEMITSU)

KABALEVSKY: Symphony No. 2, Op. 19 (see

certain amount of critical condescension. Much of it related to his knack of writing operas that exploited changing contemporary trends, ranging from Orientalism (*Le Roi de Lahore, Thaïs*) to Meyerbeerian grand opera (*Le Cid*) and from sophisticated fairy tales à la Humperdinck (*Cendrillon*) to verismo (*La Navarraise*). To the dismay of his detractors,

Alain Vanzo is his usual sensitive and cultivated self in the role of Jean, the juggler who serves the Madonna the only way he can: by performing his tricks in Her honor. There are no outstanding voices in the cast, but all perform very well. Jules Bastin, somewhat dry and limited in tone, copes well with the sympathetic part of Boniface, the kindly cook of

rare and interesting addition to the duo-string concerto literature. Veteran French conductor Pierre Dervaux and his British players provide splendid collaboration throughout the six sides of this album, and, aside from a somewhat distant orchestral perspective (most noticeable in the B Minor Violin Concerto), the sound is very good. *D.H.*

SCHUBERT: Impromptus, Opp. 90 and 142 (see Best of the Month, page 72)

SIBELIUS: Violin Concerto in D Minor, Op. 47; Karelia Suite, Op. 11. Patrice Fontanarosa (violin); Orchestre National de France, Yoav Talmi cond. PETERS INTERNATIONAL PLE 074 \$6.98.

Performance: **Ardent concerto**
Recording: **Good**

SIBELIUS: Violin Concerto in D Minor, Op. 47. Ruggiero Ricci (violin); Bochum Symphony Orchestra, Matthias Kuntzsch cond. **SINDING: Suite for Violin and Orchestra, Op. 10.** **NOVÁČEK: Perpetuum Mobile, Op. 5, No. 4.** Ruggiero Ricci (violin); Orchestra of Radio Luxembourg, Louis de Froment cond. TURNABOUT □ QTV 34722 \$3.98.

Performance: **Brilliant fiddling**
Recording: **Ricci has the spotlight**

Patrice Fontanarosa, whose recording of the neglected Schumann violin concerto on the Peters label is the best to date, makes a most persuasive case for an ardently youthful, somewhat freewheeling treatment of the Sibelius concerto in this new recording. He has a fine, juicy tone and technique to burn, and he is backed up forcefully by conductor Yoav Talmi with France's première orchestra. Talmi himself is a bit heavy-handed for my taste with the *Karelia* music, but he does come up with a lively final march. The recording is rather studio-ish, though the sound is full-bodied and well balanced.

The same cannot be said for Ruggiero Ricci's recording on the budget-price Turnabout label. In both the Sibelius and on the Sinding/Nováček side, the solo violin is determinedly thrust into the listener's ear by the engineers. Moreover, the Bochum orchestra is no match for the Parisians. Nevertheless, the disc is still of more than passing interest, for the suite by Christian Sinding (a post-Grieg Norwegian) here gets its first American-label recording since Heifetz essayed the music in the Fifties, and the diabolically brilliant *Perpetuum Mobile* by the short-lived violinist-composer Ottokar

Nováček gets what seems to be its first recording with orchestral accompaniment since one in the Thirties with Menuhin and Enesco. The Sinding suite has relatively little Norwegian flavor, but the opening movement gives the soloist a thorough workout and the finale is a highly effective essay in a neo-Bach style with a more-than-credible cadenza. The trouble is that Ricci's dazzling violinistics and sound musicianship are undermined by the recording of the Luxembourg side, which seems terribly cramped; not even four-channel playback does much to alleviate the sonic chaos. *D.H.*

SINDING: Suite for Violin and Orchestra, Op. 10 (see SIBELIUS)

R. STRAUSS: Ariadne auf Naxos. Leontyne Price (soprano), Ariadne, Prima Donna; Walter Berry (baritone), Music Master; Tatiana Troyanos (mezzo-soprano), Composer; René Kollo (tenor), Bacchus, Tenor; Edita Gruberova (soprano), Zerbinetta; Barry McDaniel (baritone), Harlequin; Kurt Equiluz (tenor), Scaramuccio; Manfred Jungwirth (bass); Truffaldino; Gerhard Unger (tenor), Brighella; others. London Philharmonic Orchestra, Sir Georg Solti cond. LONDON OSAD 13131 three discs \$26.94.

Performance: **Good**
Recording: **Very good**

This is an impressively cast and well-engineered new version of *Ariadne auf Naxos*, with a stronger performance than this troublesome opera usually gets. And yet I must register a certain disappointment. My feelings about *Ariadne* have always been a bit ambivalent: I admire the ravishing sounds and Strauss' brilliant vocal and orchestral writing, but the artificiality of it all usually leaves me unmoved. Only a truly inspired performance, such as that on Angel 3532 (mono, with the peerless vocal trio of Schwarzkopf, Seefried, and Streich. Herbert von Karajan conducting), can make me forget my reservations.

There is no real weakness in the singing here, but even the best individual performance, the Composer of Tatiana Troyanos, must yield to those of such predecessors as Irmgard Seefried (Angel) and Sena Jurinac (London 13100). Leontyne Price sounds uncomfortable in the Prologue; later on she delivers some glorious phrases—"Ein schönes war: hiess Theseus" early in the opera and "Ich grüsse dich, du Bote aller Boten!" as Bacchus appears are good examples. But her pronunciation is cloudy, and her tones tend to

lose roundness as the tessitura sinks to her weak low register. The role of Bacchus is a notoriously ungrateful one for tenors. René Kollo copes with it adequately, but that's about all. Edita Gruberova manages Zerbinetta's stratospheric music with lightness and skill, but her voice is not particularly pleasing.

There are some fine cameos in supporting roles: Erich Kunz as the insufferably haughty Major-domo; Walter Berry, less resonant than he used to be, but still an endearingly human Music Master; and Heinz Zednik, memorable in the brief utterances of the Dancing Master. The Naiad (Deborah Cook), Dryad (Enid Hartle), and Echo (Norma Burrowes) are pleasant, the four clowns expert.

Sir Georg Solti brings out the glow and transparency of the delicate orchestration with a masterly hand, but some of his tempos are questionable. Ariadne's "*Es gibt ein Reich*" is more effective with a more expansive treatment—surely its conclusion has been done more rapturously than it is here. And the dance episode ("*Es gilt, ob Tanzen*") is too briskly paced to be lilting. Overall balances between voices and orchestra are just, though I would have welcomed more presence for the former. *G.J.*

TAKEMITSU: Munari by Munari. ICHIYANAGI: Arrangements for Percussion Player. Sumire Yoshihara (percussion); Alan Zimmerman, Masashi Ono (assistant players). RCA Ⓛ RDCE-9 \$15.95 (from Audio Technica, 33 Shiawassee Avenue, Fairlawn, Ohio 44313).

Performance: **Most engaging**
Recording: **Superb direct-to-disc**

Sumire Yoshihara is a young Japanese percussionist of a particular bent. Her playing has been called feminine, but to my ears it is above all Japanese. These works, the Takemitsu in particular, are finely tuned coloristic music in which the strokes of the drum sticks are like the strokes of the artist's brush: sure and telling in a few lines and a dab or two of color. The Ichiyanagi music is stronger, more playful, more sporadic, but also well adapted to Ms. Yoshihara's performance style and the vividness of the direct-to-disc recording. The clean, vibrant sound of this recording is undoubtedly due to the extraordinary fidelity of the pick-up of the resonance of the hall itself—a perfect sounding box for these delicately reverberating percussion instruments.

Fair warning: you get for your money about ten and one-half minutes on one side and a little over thirteen on the other, mostly quiet, sparse, but lovely percussion sound—at least until the drum eruption that pulses out (rather unpleasantly) the Ichiyanagi. *E.S.*

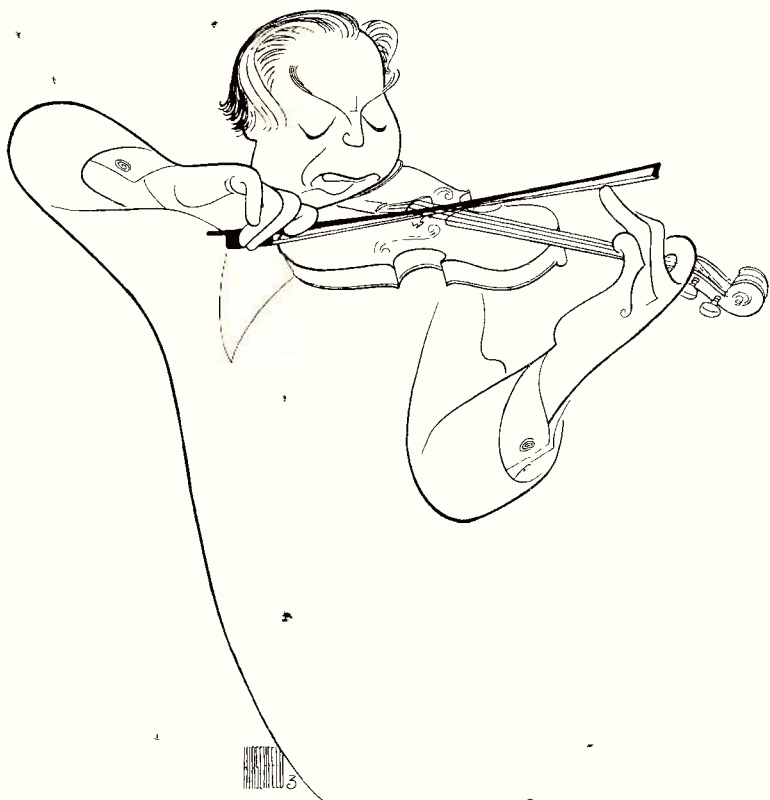
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Columbia Masterworks

Festival: Isaac Stern

FROM Jascha to Itzhak (or Pinchas), there's no one like Isaac. Isaac Stern is alone in his generation, the only remaining link between the old Odessa school of violinists and the young Israelis. And Stern's music-making, like his ebullient public personality, is big, wide-ranging, generously encompassing. As if to illustrate this, Columbia has just released an astonishing group of records in which he plays violin concertos from three centuries—including two controversial contemporary works—in collaboration with no fewer than five leading orchestras under five top conductors!

Of greatest interest are the two new works, for it is rare for a major artist known for traditional repertoire to record contemporary music with a major label, especially when it is of such recent vintage: 1974 for George Rochberg's concerto, 1976 for Krzysztof Penderecki's. But there is still more to the story than that. Both Penderecki and Rochberg have fearsome reputations as avant-garde composers, but they are now regarded as *defectors* from the avant-garde (perhaps the principal defectors)—in great part because of these concertos, both of which were introduced by Stern. Is there a neo-Romantic revival under way? These are the pieces that have prompted some critics to declare that there is, and they are indeed full of big, traditional elements.

Penderecki made his reputation with a series of large orchestral and orchestral-choral works built on huge sonority blocks—clusters, glissandos, instrumental textures, and so forth—all set out in a very dramatic, intense context. I don't think it is quite correct to say, as the album annotator here does, that the hallmarks of Penderecki's early style have "all but disappeared from such works as the concerto." I find lots of holdovers, including the stark, heavily dramatic, anguished tone that has been so characteristic of this composer. In fact, casual listeners will hardly understand what the "neo-Romantic" fuss is about; to traditionally oriented ears this work will seem quite modern enough. Looked at in another way, though, Penderecki's work has always had a certain grandly romantic *Angst*.

One crucial change cannot be overlooked. Penderecki's earlier work, however dramatic, is in effect minimalist, nondevelopmental. But his violin concerto, like a good Romantic composition, tells a story—and a terribly tragic tale it is, too. Why is it that "high," "serious" art is so often anguished and tragic? A great deal of modern art is in this respect descended directly from Romanticism. For composers like Penderecki and Rochberg, whose roots are really in the Central European tradition, the move to a *kind* of romanticism is not such a great leap backward as it might at first appear.

Rochberg began as something of a twelve-tone hard-liner, but he has been using collage as an element in his music for more than a decade. Now he has gone way beyond collage. His violin concerto is, in fact, about as far removed from art-about-art as you can get. It is at least as tragic as the Penderecki—and twice as schmalzty. Both these works are "romantic" with a small "r," more closely related to the old modern classics—the violin concertos of Prokofiev, Berg, and Bartók—than to the nineteenth century. But in any case they are just right for Stern, who makes a powerful impression with them, the Rochberg especially. This piece stirs up audiences who are obviously anxious to welcome the black sheep back from the avant-garde fold. Musical politics aside, it is a very well conceived and perfectly executed piece of musical rhetoric and sentiment.

As for the other recordings in the batch, by far the best is the Tchaikovsky. Only someone who has played this piece as many times as Stern has could wear it so comfortably, taking all the possible liberties and still convincing us that it all means something. Mstislav Rostropovich is an ideal collaborator as conductor, and the album is enhanced by the inclusion of the *Meditation* (as orchestrated by Glazounov) that was Tchaikovsky's original slow movement for the concerto but was later published as a separate work.

I like Stern's impassioned reading of the Brahms concerto too, but in this case the orchestral contribution (Zubin Mehta conducting) is a bit too noble and dull. It is odd, though often effective, to hear Stern poking dramatic little solo-violin holes through the rather strait-laced orchestral texture.

Soloist and conductor are better matched on the Mozart disc. If you care for a strong, not very eighteenth-century Mozart, you might like these readings. Stern's versatility is not boundless, certainly, but it is remarkable enough. Between the generalists and the purists I'll always come down on the side of the generalists, and Isaac Stern is unquestionably one of the finest of that breed. —Eric Salzman

PENDERECKI: *Violin Concerto*. Isaac Stern (violin); Minnesota Orchestra, Stanislaw Skrowaczewski cond. COLUMBIA M 35150 \$7.98.

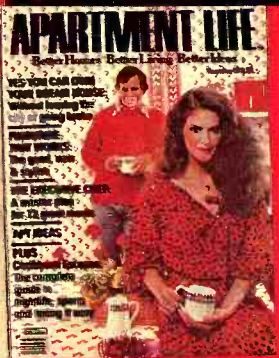
ROCHBERG: *Violin Concerto*. Isaac Stern (violin); Pittsburgh Symphony Orchestra, André Previn cond. COLUMBIA M 35149 \$7.98.

TCHAIKOVSKY: *Violin Concerto in D Major, Op. 35; Meditation, Op. 42, No. 1*. Isaac Stern (violin); National Symphony Orchestra, Mstislav Rostropovich cond. COLUMBIA M 35126 \$7.98, © MT 35126 \$7.98.

BRAHMS: *Violin Concerto in D Major, Op. 77*. Isaac Stern (violin); New York Philharmonic Orchestra, Zubin Mehta cond. COLUMBIA M 35146 \$7.98, © MT 35146 \$7.98.

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Sir Arthur Sullivan's Zoo Story

ON June 5, 1875, eighty-three years before Edward Albee wrote his one-act play *The Zoo Story*, London's Zoological Garden was the setting for a new operetta by Arthur Sullivan. *Trial by Jury* was already enjoying a spectacularly successful run as a curtain-raiser to Offenbach's *La Périchole* at the Royalty Theatre when *The Zoo* opened half a mile away at the St. James. Sullivan had completed the score only two days before the opening. His collaborator for the new work, like *Trial by Jury* a one-act comedy with no spoken dialogue, was B. C. Stephenson, writing under the pseudonym Bolton Rowe.

The libretto is a light-headed concoction about thwarted love. A young apothecary named Aesculapius Carboy (like Albee's Jerry) come to the zoo to end it all, in this case because his beloved Laetitia's father, Grinder the grocer, has forbidden the pair to meet. The destinies of Aesculapius and Laetitia become tangled with those of a second pair of lovers: Thomas Brown, a duke disguised as a commoner, and his Eliza, who sells soft drinks at the zoo's refreshment stall. Laetitia's father is bought off in the end, allowing her to marry the smitten apothecary, after a series of blithe pieces in which Sullivan displayed his considerable word-setting skill.

With some of the D'Oyly Carte Opera Company's top performers playing the principals and the Royal Philharmonic under Royston Nash doing full justice to Sullivan's stun-

ning orchestration, the new London recording of *The Zoo* is a delight. The work had been gathering dust since 1879 in a London bank vault when the D'Oyly Carte decided to revive it, a happy decision indeed. Coupled here with *The Zoo* is a new recording of Sullivan's *Cox and Box*. This one-acter dates back to 1866 and has a book by F. C. Burnand. It's about a printer and a hatter duped by their greedy landlord Bouncer into unwittingly sharing a bed-sitter (Box the printer works all night, Cox the hatter all day). Nash's version of this irresistible "triumviretta" is not as rushed and breathless as the earlier version conducted by Isidore Godfrey to fill out the final side of *The Gondoliers*, and it has the added virtue of restoring the "Rataplan" finale. —Paul Kresh

SULLIVAN: *The Zoo*. Meston Reid (tenor), Aesculapius Carboy; Kenneth Sandford (baritone), Thomas Brown; John Ayldon (baritone), Mr. Grinder; Julia Goss (soprano), Laetitia; Jane Metcalfe (mezzo-soprano), Eliza Smith; Geoffrey Shovelton (narrator). D'Oyly Carte Opera Chorus; Royal Philharmonic Orchestra, Royston Nash cond. **Cox and Box.** Gareth Jones (tenor), James John Cox; Geoffrey Shovelton (tenor), John James Box; Michael Rayner (baritone), Sergeant Bouncer. Royal Philharmonic Orchestra, Royston Nash cond. LONDON OSA-1171 \$7.98, © CS4-1171 \$7.98.

Spietata. Martini: Plaisir d'Amour. Piccini: O Notte O Dea del Mistero. Paisiello: Nel Cor Più Non Me Sento. Janet Baker (mezzo-soprano); Academy of St. Martin-in-the-Fields, Neville Marriner cond. PHILIPS 9500 557 \$8.98, © 7300 691 \$8.98.

Performance: **Ravishing**
Recording: **Excellent**

Here is an album of all-but-too-familiar eighteenth-century Italian arias. The miracle of these time-worn favorites is that they hold up so well even though every student and professional in the business uses them for study and concert. Their melodies are still fresh, and it is always a pleasure to hear them sung by a great artist. Dame Janet Baker is, of course, a great artist, and she presents these classics with the kind of disarming simplicity that can result only from complete control of the voice and exemplary musical taste.

It is also refreshing to hear these works accompanied by the Academy of St. Martin-in-the-Fields rather than a pianist. The accompaniments make no pretense of being authentic, but Simon Preston has arranged them so beautifully that one could not care less about that. Besides translations of the Italian texts, the jacket also includes excerpts of an interview with Dame Janet. S.L.

RECORDING OF SPECIAL MERIT

JULIAN BREAM AND JOHN WILLIAMS: *Guitar Recital.* Johnson: *Pavan and Galliard.* Telemann: *Partie Polonoise.* Sor: *Fantasia, Op. 54.* Brahms: *Theme and Variations, Op. 18.* Fauré: *Dolly, Op. 56.* Debussy: *Reverie; Golliwog's Cakewalk; Clair de Lune.* Albéniz:

Castilla, Op. 47, No. 7. Granados: Spanish Dance, Op. 37, No. 2 ("Oriental"). Julian Bream, John Williams (guitars). RCA ARL2-3090 two discs \$15.98, © ARK2-3090 \$15.98.

Performance: **Distinctive**
Recording: **Excellent live takes**

More than a hundred years ago Gottschalk and Thalberg performed together in New York; this year Pinchas Zukerman and Itzhak Perlman have been giving joint recitals. This sort of virtuoso duo has always had a special kick, and the joint performances by the two outstanding guitarists of their generation have been among the most exquisite of such pleasures. What has not been said by now about Julian Bream and John Williams hardly needs saying, and the present package, culled from live performances of the same program given in Boston and New York last October, is more than a double delight. Not surprisingly, the one work actually composed for two guitars—the *Fantasia* of Fernando Sor—comes off best in terms of musical interest, followed by the transcriptions of the lute pieces by Telemann and the Elizabethan virtuoso John Johnson. The Debussy and Granados pieces lend themselves well enough to the guitar medium, and, surprisingly, so does the slow movement of Brahms' Op. 18 string sextet. Fauré's *Dolly* suite seems a less happy choice for such treatment, and the extract from Albéniz's *Suite Española* strikes me as a bit less fastidious than it might have been. But such reservations need not (and surely will not) deter admirers of Bream and Williams in particular or the guitar in general from acquiring and enjoying this mostly stunning collec-

tion, which is so well recorded that I can't even complain about the applause. R.F.

RECORDING OF SPECIAL MERIT

CONSORTIUM CLASSICUM: *Viennese Serenade.* Hoffmeister: *Echo Partita in E-flat Major.* Haydn: *Partita in F Major.* Wranitsky: *Partita in F Major.* Beethoven: *Rondino in E-flat Major.* Mozart: *The Magic Flute: Overture and Airs in E-flat Major.* Fragment of a *Serenade in E-flat Major.* Vanhal: *Partita in B Major.* Krommer: *Serenade in C Minor.* Consortium Classicum Wind Ensemble. TELEFUNKEN 6.35334EK two discs \$17.96.

Performance: **Razor-sharp**
Recording: **Superb**

Rummaging through libraries, monasteries, and castles from London to Moscow, clarinetist Dieter Klöcker of the Consortium Classicum has uncovered, according to the jacket notes here, more than a thousand scores of music meant to be played out of doors. Serenades, cassations, divertimentos, nocturnos, and partitas were enjoyed by all classes and were heard everywhere during the eighteenth century. Virtually every composer of the Classical era contributed to this popular genre, and the result is a rich and widely varied repertoire of music for wind ensemble.

"Viennese Serenade" is an excellent selection of this delightful music. Although it was all written in a deliberately lightweight style for casual entertainment, wit and elegance give way to profundity more frequently than one would expect. Franz Anton Hoffmeister worked his echoes to death, but the Haydn

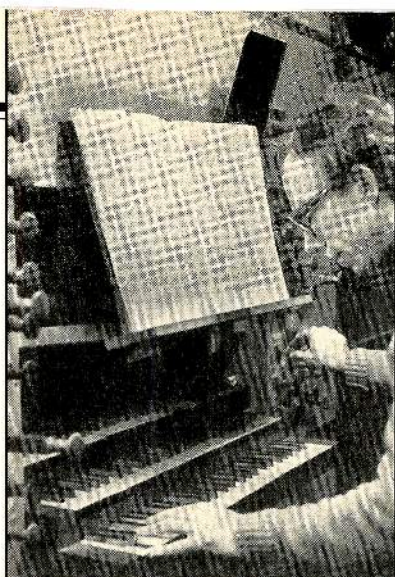
(Continued on page 109)

PROBABLY the most striking single breakthrough in the quality of prerecorded cassettes up to now was the introduction of Advent's "Process CR/70" series a little less than five years ago. This was the first line to use chromium-dioxide tape exclusively as well as Dolby-B encoding. From the outset the series showed uncommon concern for convenience as well as musical and sonic standards—and for the consumer's pocket-book as well.

New entries (and in some cases re-entries) into the cassette field in the last few years by various record companies indicate the confidence in this medium now shared by the companies and a growing public. Many of the most interesting cassette releases have come from low-price labels (Seraphim, Quintessence, Odyssey, Vox), while in the full-price realm a greater proportion of new classical releases now appears simultaneously on discs and cassettes. At the same time, cassette playback equipment has become remarkably sophisticated: the medium, clearly, has arrived, and it has shown itself capable in many cases of matching or surpassing the quality of disc recordings.

Connoisseur Society, essentially a one-man operation on the part of E. Alan Silver, was the largest single source of material for Advent cassettes from the initial release until about a year ago. The label has been noted for sonic excellence ever since the early Sixties, when its first recordings were issued in the form of twelve-inch 45-rpm pressings (those were later converted to conventional-speed LP's), and Silver himself has used his engineering background to devise new techniques for pressing discs with lower distortion levels and other assorted benefits. It is hardly surprising, then, that "Connoisseur Society Laboratory Series" cassettes are being offered now from Silver's own In Sync Laboratories. This new series, with a list price of \$10.98, is definitely not cheap, but it advances the technology to a new level, one likely to win still more converts for the cassette medium among the most serious and demanding listeners.

All the In Sync cassettes are recorded on a second-generation chrome tape capable of a greater dynamic range than other tape formulations, and there is a wider recorded frequency range as well because In Sync has bypassed the filter in its Dolby-B encoder, which would otherwise cut off everything above



Organist Lionel Rogg

Cassette Millenium?

16,000 Hz. The frequency range of the cassettes is said to be from 30 Hz to somewhere above 20,000 Hz. Elimination of the "inter-master" step in the duplicating process is cited as an additional factor contributing to the liveness and spaciousness one hears in listening to these cassettes.

There are piano, organ, orchestral, choral, and concerted works represented among the eight cassettes in the initial release. The clean, utterly realistic sound of Ivan Moravec's piano in his Chopin recital and of Michel Béroff's in his Bartók collection (the former recorded by the Connoisseur Society itself, the latter and everything else in the release by EMI's French company, Pathé) is startling. There is no background hiss at all, and the sound one hears (with equipment that is up to the job) is not that of a good piano recording, but simply that of a piano. In the Roussel cassette the orchestra and chorus come through with the same stunning clarity, at once marvelously warm and marvelously bright. This may not be superior to the disc edition (CS 2124), which is a knockout, but to my ear it has even more body. And I don't think I have heard many better-sounding or-

gan recordings in any format (surely none on cassettes) than Lionel Rogg's Liszt package.

The four Rachmaninoff cassettes represent première releases in this country; the disc editions of the concerted works have not even been announced so far. Pianist Jean-Philippe Collard's feeling for the Rachmaninoff "idiom," if we may call it that, has been demonstrated in solo recordings and in live performances with American orchestras. His performances here are fluent, impassioned, communicative, and altogether brilliant; conductor Michel Plasson, in full accord at every point, really has his orchestra on its toes. The recordings are beautifully balanced, allowing every detail to emerge in virtually ideal perspective. I would have thought it feasible to pair the Second and Fourth Concertos on a single cassette (without the solo pieces drawn from Collard's integral recordings of the various sets), but I understand that recording the duplicator masters at 15 ips—another innovation contributing to the excellence of these tapes—fills the duplicator processing bin with so much tape that longer sides become a problem. (This may be worked out in the future, though, according to Silver.)

There is no annotation provided with any of the In Sync releases, but buyers may obtain copies of the full disc notes by simply requesting them from the company. The high price is also offset, to a degree, by a "no fault" guarantee whereunder any user-damaged cassette will be replaced with a new copy for \$2. Factory defectives (if there are any) are, of course, replaced at no charge.

IN SYNC has announced a release schedule of eight cassettes per month, and the batch slated to appear after this first one will again include material not yet released in the U.S. in disc form, in this case a Honegger package conducted by the late Jean Martinon that includes the noble and endearing *Cantate de Noël* as well as *Pacific 231*, the *Pastorale d'Été*, and *Rugby* (C 4011). I look forward to this, to the two cassettes with violinist Wanda Wilkomirska also announced (Franck and Szymanowski works with Antonio Barbosa on C 4010, the three Delius sonatas with David Garvey on C 4012), and in general to giving my cassette deck a greater share of attention than heretofore because of this splendid new source of listening pleasure in that convenient format. —Richard Freed

IN SYNC/CONNOISSEUR SOCIETY CASSETTES

(Each cassette lists for \$10.98.)

BARTÓK: *Piano Sonata; Out of Doors; Roumanian Folk Songs; Hungarian Peasant Dances; Six Dances in Bulgarian Rhythms.* Michel Béroff (piano). C 4006 (52 minutes).

CHOPIN: *Barcarolle in F-sharp Major, Op. 60; Etude in C-sharp Minor, Op. 25, No. 7; Ballade No. 1, in G Minor, Op. 23. Mazurkas: in C-sharp Minor, Op. 50, No. 3; C-sharp Minor, Op. 63, No. 3; A Minor, Op. 7, No. 2; C Major, Op. 24, No. 2; A Minor, Op. 17, No. 4.* Ivan Moravec (piano). C 4007 (43 minutes).

LISZT: *Fantasy and Fugue on "Ad Nos"; Prelude and Fugue on B-A-C-H; Adagio in D-flat Major; Ave Maria of Arcadelt.* Lionel Rogg (organ). C 4005 (44 minutes).

RACHMANINOFF: *Piano Concerto No. 1, in F-sharp Minor, Op. 1; Rhapsody on a Theme of Paganini.* Jean-Philippe Collard (piano); Orchestre du Capitole de Toulouse, Michel Plasson cond. C 4001 (52 minutes).

RACHMANINOFF: *Piano Concerto No. 2, in C Minor, Op. 18. Études Tableaux: Op. 39, Nos. 5 and 6; Op. 33, Nos. 2 and 6.* Jean-Philippe Collard (piano); Orchestre du Capitole de Toulouse, Michel Plasson cond. (in concerto). C 4002 (47 minutes).

RACHMANINOFF: *Piano Concerto No. 3, in D Minor, Op. 30.* Jean-Philippe Collard (piano); Orchestre du Capitole de Toulouse, Michel Plasson cond. C 4003 (42 minutes).

RACHMANINOFF: *Piano Concerto No. 4, in G Minor, Op. 40. Preludes: Op. 3, No. 2; Op. 23, Nos. 1, 2, 4; Op. 32, No. 12. Moment Musical in B Minor, Op. 16, No. 3.* Jean-Philippe Collard (piano); Orchestre du Capitole de Toulouse, Michel Plasson cond. (in concerto). C 4004 (42 minutes).

ROUSSEL: *Psalm No. 80, Op. 37; Bacchus et Ariane, Suite No. 2, Op. 43.* John Mitchinson (tenor, in *Psalm*); Stéphane Caillat Chorus (in *Psalm*); Orchestre de Paris, Serge Baudo cond. C 4008 (42 minutes).

piece is a high-spirited romp, Mozart's contribution is a selection of popular airs from *The Magic Flute*; the serenade fragment also attributed to him here is probably by Ignaz Pleyel. Johann Vanhal's partita is particularly arresting in its use of the Bohemian "furiant" with its curious Slavic minor. But the real sleepers are the pieces by Franz Krommer and the completely obscure Paul Wranitzky; these two alone are worth the price of the album. Only Beethoven here seems a little out of his depth—or, rather, too deep—for outdoor music.

Frankly, I have always found that a little wind music goes a long way, but the Consortium Classicum plays with such fine articulation and musical subtlety that this album kept my interest in the same way a fine string-quartet recital usually does. The instrumentation includes two oboes, four clarinets, two each of horns and bassoons, and a double bass. The sonority, beautifully caught by Telefunken's engineers, is mellow, velvety, and infinitely varied. Owners of this handsome album should get years of pleasure from it. S.L.

RECORDING OF SPECIAL MERIT

YOURI EGOROV: *At Carnegie Hall*. J. S. Bach: *Chromatic Fantasy and Fugue in D Minor (BWV 903)*. Mozart: *Fantasy in C Minor (K. 475)*. Chopin: *Fantasy in F Minor, Op. 49; Etude in G-flat Major, Op. 10, No. 5; Etude in E Major, Op. 10, No. 3*. Youri Egorov (piano). PETERS INTERNATIONAL PLE 121 \$7.98. © PCE 121 \$7.98.

Performance: **Spellbinding**
Recording: **Mostly good**

This documentation of the 1978 Carnegie Hall debut of Youri Egorov—twenty-five years old, born in the Soviet Union but now living in Amsterdam—is noteworthy in many respects. Not only does it present an exceptionally gifted pianist, but it does so in a program largely devoted to what are probably the three greatest keyboard fantasies in the literature. And the recording includes the full-throated audience response to Egorov's remarkable display of musicianship.

Egorov's Bach is a bit too taut in the fantasy section for my taste, and the piano sounds a bit thin. But in the great Mozart fantasy we get a highly charged, wholly spellbinding performance that makes the very most of both the music's somber drama and its bittersweet lyricism, yet without tasteless exaggeration. Egorov's command of nuance and dynamic coloration in the lyrical episodes is breathtaking. His rendition of the Chopin fantasy for me ranks with the historic Solomon recording of the Thirties and the sternly disciplined reading of Jakob Gimpel on a 1972 Genesis disc. Egorov's reading is much the freest, yet it stays well within the bounds of the music's basic pulse. And he achieves an extraordinary pedal effect in the last pages, where he allows the overtones from the major climax to lap over into the coda.

The two Chopin etudes, played as encores, display Egorov's fleetness of fingering and—in the thrice-familiar E Major—a command of exquisite legato. The recorded sound seems rather hard and thin in the Bach performance, but it improves steadily in richness and body throughout the Mozart and Chopin. D.H.

MUSIC FOR A WHILE: *La Fontaine Amoureuse* (see Best of the Month, page 73)

JULY 1979

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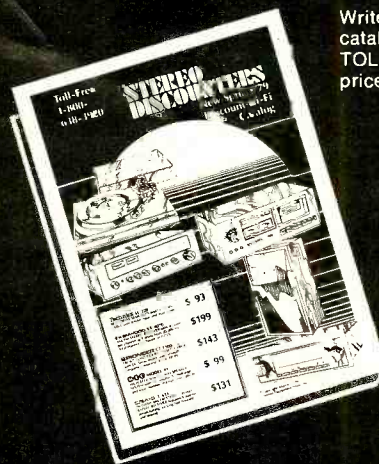
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POPULAR DISCS AND TAPES

Reviewed by CHRIS ALBERTSON • EDWARD BUXBAUM • NOEL COPPAGE • PHYL GARLAND
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LYNN ANDERSON: *Outlaw*. Lynn Anderson (vocals); instrumental accompaniment. *A Child with You Tonight; I Am Alone; Say You Will*; and seven others. COLUMBIA KC 35776 \$7.98, © KA 35776 \$7.98, © KT 35776 \$7.98.

Performance: **A bit forced**
Recording: **Good**

This is the West Coastiest Lynn Anderson has been on record, with Southern California-type rock musicians largely replacing the customary country-and-Mantovani sound behind her. This coterie includes Linda Ronstadt's fine and distinctly non-Nashville steel player, Dan Dugmore, and several songs that would be more at home with Linda than they are with Lynn. In the past, Lynn has been good at finding songs that required just what she had vocally, but too many of these need something else. She has to make herself sound too much like Brenda Lee to sing them. *Come As You Are* is an exception. Generally, the songs are a little thicker and heavier, with even less country flavor than usual. It's as if this is some kind of answer to Dolly Parton's recent crossover antics. I think Anderson was better off with the crossover act she already had; the *I Never Promised You a Rose Garden* sort of lightness suits her style better. N.C.

AVERAGE WHITE BAND: *Feel No Fret*. Average White Band (vocals and instrumentals).

When Will You Be Mine; Please Don't Fall in Love; Walk On By; Feel No Fret; Stop the Rain; and four others. ATLANTIC SD 19207 \$7.98, © TP 19207 \$7.98, © CS 19207 \$7.98.

Performance: **Good**
Recording: **Good**

I guess what's been bothering me about the Average White Band, and bothers me here too, is the sophistication gap between their instrumentals and their vocals. The vocals, it seems to me, are foundering a good percentage of the time, in over their heads. It is probably a case of some average white boys trying to sound like something they're not. This current album does have some nice touches, though; it's smartly paced, the sound repeatedly has air beautifully let into it, and the songs, while they're not much lyrically, serve the AWB's r-&-b/jazz attitude well. Of course, the thing is as cool as the blue of its jacket, but that's what some people want. Still, the voice-as-instrument ploy is repeatedly fumbled; the vocal part keeps sounding like a rehearsal. N.C.

BAD COMPANY: *Desolation Angels*. Bad Company (vocals and instrumentals). *Rock 'n' Roll Fantasy; Crazy Circles; Gone, Gone, Gone; Evil Wind; Lonely for Your Love*; and five others. SWAN SONG SS 8506 \$7.98, © TP 8506 \$7.98, © CS 8506 \$7.98.

Performance: **Good, but . . .**
Recording: **Good**

Though the hit cut is *Rock 'n' Roll Fantasy*, this album is basically a program of second-generation British blues-band workouts disguised as contemporary pop/rock. Bands like Bad Company have to find a comfortable and prosperous middle ground between the two extremes set up by the first-generation British blues musicians: the Rolling Stones, who fused rock and blues to their own purposes, and John Mayall, a lingering and garrulous quasi-purist whose sound has always reflected a compromise between righteousness and a need for pocket money.

Bad Company is a well-oiled group, and

their performances are skillful. The problem is the material, which is so-so, as urban-marketplace white blues usually are. And blues bands that work too hard at what they're doing tend either to bore you quickly or to arouse your admiration for their energy without exciting your pleasure. J.V.

THE BEACH BOYS: *L.A. (Light Album)*. The Beach Boys (vocals and instrumentals); instrumental accompaniment. *Good Timin'; Lady Linda; Here Comes the Night; Baby Blue; Shortenin' Bread; Sumahama*; and four others. CARIBOU JZ 35752 \$7.98, © JZA 35752 \$7.98, © JZT 35752 \$7.98.

Performance: **Good**
Recording: **Splendiferous**

Will the switch from Capitol to Columbia boost the sales of a Beach Boys album? Will the disco tracks here provide the "answer" for a group that seems to have said all it had to say at least ten years ago? Will the Beach Boys ever be able to pull off the kind of storybook comeback that the Bee Gees did? And will Brian Wilson ever find *enough* love?

Well, the answer to all these questions is, probably not. Switching labels is generally most helpful to straight-on, commercial, marketplace artists; Cher, for example, recently changed to Casablanca after several years of languishing like a wax gardenia at Warner Bros.—and got her first chart hit in a decade. The Beach Boys have been at a consistently low-tide mark for a long while now, but they are, or try to be, a genuinely creative group. In their case a label change means only a difference in the marketing of their albums.

The disco tracks here, such as *Shortenin' Bread* and Brian Wilson's eleven-minute bagel-from-outer-space *Here Comes the Night*, are splendiferously and super-professionally produced, but they're quite empty of any distinctive sound that immediately nails them as Beach Boys material. A comeback? Who knows? Their recent live appearance at Radio City Music Hall in New York didn't exactly set the box office on fire, but the fickle finger of pop fortune just may point to them again as

Explanation of symbols:

- Ⓜ = open-reel stereo tape
- Ⓢ = eight-track stereo cartridge
- Ⓒ = stereo cassette
- Ⓛ = quadraphonic disc
- Ⓣ = digital-master recording
- Ⓛ = direct-to-disc recording

Monophonic recordings are indicated by the symbol Ⓜ

The first listing is the one reviewed; other formats, if available, follow it.

they introduce themselves to a whole new generation. In the meantime, I'll leave you with the two burning questions inevitable in any interview or discussion of the Beach Boys: "How is Brian Wilson?" "Is he all right?" Tune in tomorrow. P.R.

IRVING BERLIN: *Songs* (see *Best of the Month*, page 73)

NATALIE COLE: *I Love You So*. Natalie Cole (vocals); orchestra. *You're So Good; It's Been You; The Winner; Sorry; Oh Daddy*; and four others. CAPITOL SO-11928 \$7.98, © 8XO-11928 \$7.98, © 4XO-11928 \$7.98.

Performance: **Inane**
Recording: **Routine**

If all Natalie Cole, her managers, and her record company could think of for her to do next was to Go Disco, then they lose again. Cole has a basic talent that deserves a lot better. Her last album was a screeching, Vegas-style disaster. This one is lumpy disco, lousy Natalie (she sounds like at least ten other, less talented people), and a case of rotten judgment on everyone's part. Getting lost in this inane commercial shuffle is the sleek, gutsy young singer whose first two albums were knockouts. It's pointless, that's all. P.R.

JUDY COLLINS: *Hard Times for Lovers*. Judy Collins (vocals); instrumental accompaniment. *Hard Times for Lovers; Marie; Happy End; Desperado; I Remember Sky; Starmaker*; and four others. ELEKTRA 6E-171 \$7.98, © ET8-171 \$7.98, © TCS-171 \$7.98.

Performance: **Good, but . . .**
Recording: **A little noisy**

This sounds like a between-albums album, if not quite a casting-about-for-direction one. The title song leads it off well enough, but *Marie* (Randy Newman's) is not exactly Judy Collins' kind of song, and neither, in a different way, is the Eagles' *Desperado*. The other side is padded, I'd call it, with back-to-back mediocre theme songs from *The Promise* and *Ice Castles*. To a degree they, like other elements in the album, try to satisfy the wistful "nightingale" part of Judy Collins, but only Stephen Sondheim's *I Remember Sky* really gets at it. Much of the album is also overproduced, another sign that the project was in trouble. But at least, for the most part, she went after songs that try to say something. The mismatching is mainly stylistic; Collins is a folkie, with a bent for singing the occasional classical bastard, the would-be art song. Most of these just aren't her type. N.C.

BOB DYLAN: *At Budokan*. Bob Dylan (vocals, guitar, harmonica); Billy Cross (guitar); Rob Stoner (bass, vocals); David Mansfield (pedal-steel, violin); other musicians. *Mr. Tambourine Man; Shelter from the Storm; Love Minus Zero/No Limit; Ballad of a Thin Man; Don't Think Twice It's Alright; Maggie's Farm*; and fifteen others. COLUMBIA PC2 36067 two discs \$13.98, © PCA2 36067 \$13.98, © PCT2 36067 \$13.98.

Performance: **Paging Jerry Vale**
Recording: **Excellent**

How do you say "stinkeroo" in Japanese? I haven't any idea, but I plan to find out after I play Frisbee with this album. If, like me, you didn't get to see Bob Dylan on his last tour and were wondering if the stories you'd heard

that he'd gone strictly Vegas were true, here's a numbing live document of the tour that proves the stories were, if anything, conservative. My God, after the cocktail-music versions enshrined here of such seemingly indestructible songs as *Like a Rolling Stone* and *Maggie's Farm*, you can only shake your head and await the inevitable: surprise appearances by Barbra Streisand and Neil Diamond for an encore-medley tribute to Robert Goulet. I'm willing to believe that Dylan staged this debacle solely to annoy his critics, and financially he's already had the last laugh; the tour was a huge success, and the imported Japanese version of the album has been selling briskly here at \$40 a shot. Still, given the encouraging news that he's been in the studio lately with Dire Straits (!) as his back-up band, releasing this atrocity Stateside would seem to be a tactical error at the very least. And when one recalls that the great 1966 Albert Hall concert remains a-moulderin' in the CBS vaults, un-

heard except by a few lucky owners of the bootleg, then the release of this cosmic turkey seems almost criminal. For masochists and Dylanologists only. S.S.

ENGLAND DAN & JOHN FORD COLEY: *Dr. Heckle and Mr. Jive*. Dan Seals (vocals, guitar); John Coley (vocals, guitar, piano); Jeff Porcaro (drums); Leland Sklar (bass); Richie Zito (guitar); other musicians. *Hollywood Heckle and Jive; What Can I Do with This Broken Heart; Another Golden Oldie for Wendy; Broken Hearted Me; Children of the Half-light*; and five others. BIG TREE BT 76015 \$7.98, © TP 76015 \$7.98, © CS 76015 \$7.98.

Performance: **Born stale**
Recording: **Good**

Dan and John are serious (!) contenders for the Sandler and Young of Rock award. They don't do anything badly, but they do things



Marilyn Scott: New-style Jazz Singer

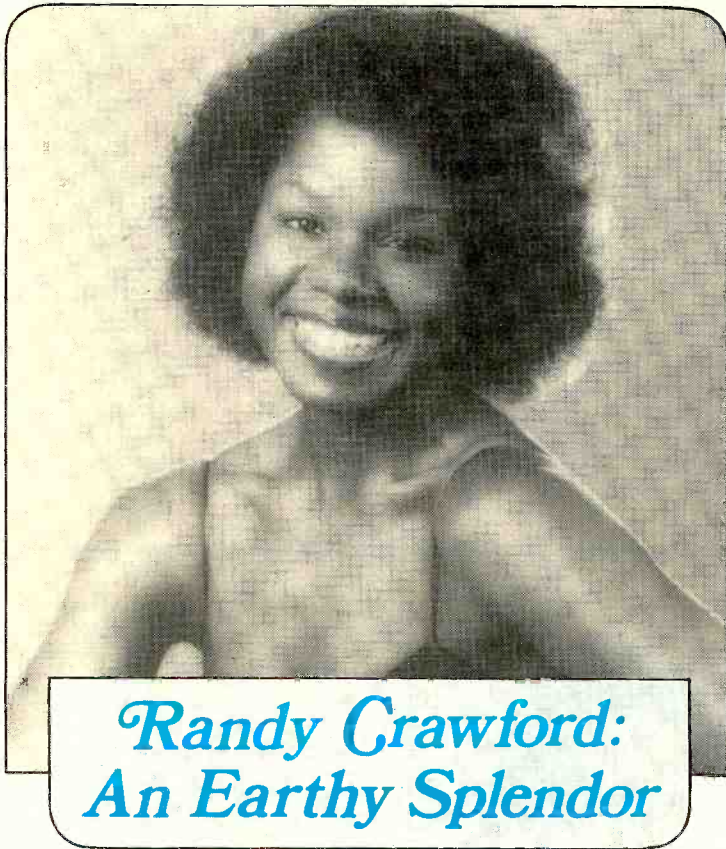
MARILYN SCOTT belongs to a group that I wasn't sure even existed: young jazz singers. To be sure, jazz has been appearing in a lot of unexpected places recently as one of the few alternatives to discomania (believe it or not, there are still people who would rather go out and be in a sit-down audience than spend as much money, or more, to be the show themselves and try to shake their accessories off). But there are so many great jazz singers of an older generation—June Christy, Anita O'Day, Helen Merrill, to name a few—still around and in great shape, with first claim on the available jobs, that it's easy to lose sight of the newcomers.

Scott has a rich, luscious voice that she uses with considerable skill. As yet she isn't on the level of any of the distinguished veterans, but that's probably because she's still in the process of creating her own style. That style is considerably different from the preceding generation's in that she projects a very female, very sexy sound. Many of the great female jazz singers, from Ella Fitzgerald on, have concentrated on honing down their voices to sound as much as possible like another instrument in the group, often with an androgynous, reed-like sound as the result. (Peggy Lee was one of the few who had an uncharacteristic womanly sound, and she soon crossed over into mainstream pop.)

By her phrasing, her teasing elongation of a lyric, and her seductive intonation—all of which declare her presence as a personality rather than an instrument—Marilyn Scott is a refreshing new development in a form that has a deadly tendency to take itself much too seriously. Her best work in her debut album, "Dreams of Tomorrow," is in *Let's Be Friends* and the title track. Neither is a particularly great song, but they both allow her to give the freest rein to her talents. Elsewhere the production, by James Stroud, seems to inhibit Scott while the music meanders through a variety of pop-jazz styles in search of A Hit.

At the moment Marilyn Scott is a very interesting, very promising singer; what she needs now is better, more interesting repertoire and a production that focuses on what distinguishes her from her great predecessors. That difference will probably be her unique contribution to the jazz renaissance that seems ready to flower all around us one of these days. —Peter Reilly

MARILYN SCOTT: *Dreams of Tomorrow*. Marilyn Scott (vocals); vocal and instrumental accompaniment. *Let's Be Friends; Dreams of Tomorrow; Highways of My Life; Why-Oh-You (Y-O-U); Let's Not Talk About Love; You Are All I Need; You Made Me Believe; The Beach; Yes I Can (I Can Get Along Without Them)*. Atco SD 38-109 \$7.98, © TP 38-109 \$7.98, © CS 38-109 \$7.98.



Randy Crawford: An Earthy Splendor

BACK in 1975, when a recording of the late Cannonball Adderley's folk musical *Big Man* (Fantasy F-79006) was released posthumously, a single track towered above everything else on those four sides: Randy Crawford's sumptuous rendition of the ballad *Gonna Give Lovin' a Try*. Her voice swelled with an earthy splendor richly laden with blues intonations, a heavy, compelling sound as old as black American music. Yet it was as fresh, light, and expectant as youth. I could not play that track often enough, and others for whom I played it were promptly seized with a similar excitement. Crawford was then twenty-one, a former church singer whose main professional engagements had been in her native Cincinnati and at the French sea resort of St. Tropez. That album was her recording debut, and I couldn't wait to hear more of her.

Crawford later signed a contract with Warner Bros., but the first two albums she did for them were disappointing. They were merely workmanlike, commercial discs that buried any distinction she might have had. Where was the Randy Crawford with that rare ability to excite? Well, she has finally re-emerged on a new album called "Raw Silk." Someone had the bright idea of presenting her in a program weighted with ballads, her basic strength, featuring quality songs that might have been done before but not to excess. Though most of this material has been drawn from the popular well, the songs bear a special mark of excellence, with meaningful lyrics and melodic lines that can be bent and played with, and Crawford bends them and plays with them very skillfully.

She is adept at shifting moods while con-

tinually retaining a mellow ambiance. At one end of the spectrum is the Bert Williams classic *Nobody*, which she endows with her own whimsicality, and at the other is Ashford and Simpson's upbeat *Where There Was Darkness*. She also handles with admirable finesse such oldies as Jerry Butler's *I Stand Accused* and Brook Benton's *Endlessly*; she sings them as though they have never been done before. Subtle shades of tonal colors give her interpretation of Marvin Gaye's *Just to Keep You Satisfied* a tenderness that was not apparent even in the original. And she weaves one of her most magical spells with *Love Is Like a Newborn Child*, a gift from Oscar Brown Jr. that fairly trembles with sensitivity. There is a bit of a shiver at the edge of her voice, whose wide vibrato is not so pronounced as that of Esther Phillips but closer to the sound of Miriam Makeba at her best.

THE accompaniment throughout is a perfect blend of suitable textures, with the gospelish piano of Leon Pendarvis frequently dominating. With this album Randy Crawford has begun to fulfill the promise apparent on her first recording. —Phyl Garland

RANDY CRAWFORD: *Raw Silk*. Randy Crawford (vocals); instrumental accompaniment. *I Stand Accused; Declaration of Love; Someone to Believe In; Endlessly; Love Is Like a Newborn Child; Where There Was Darkness; Nobody; I Hope You'll Be Very Unhappy Without Me; I Got Myself a Happy Song; Just to Keep You Satisfied; Blue Mood.* WARNER BROS. BSK 3283 \$7.98, © M8 3283 \$7.98, © M5 3283 \$7.98.

mechanically and with little style. That way of doing things is particularly loud and clear in this album, for some reason, maybe because the album, thoroughly modern, is somewhat production-happy. Technically, of course, there's not much to complain about; every hair is in place and every system works. The thing is, music's supposed to be a little more than that. There are, as usual, two or three ultrapolished AM-radio cuts here—*Love Is the Answer*, say, and *Rolling Fever*—but there is no surefire, self-propelled song. It seems to me that that's what Seals and Coley need; I can't imagine many people turning to them for a *version* of something, or for personality in general. N.C.

FLASH AND THE PAN (see *Best of the Month*, page 74)

JANIE FRICKE: *Love Notes*. Janie Fricke (vocals); instrumental accompaniment. *River Blue; Let's Try Again; Love Is Worth It All;* and seven others. COLUMBIA KC 35774 \$7.98, © KA 35774 \$7.98, © KT 35774 \$7.98.

Performance: **Janie si, Billy no**
Recording: **Good**

Judging by how he produced this, Billy Sherrill wants Janie Fricke's voice in every department store and elevator in the land. I'm sure it's normal, with a voice like Janie's, to think about pop crossovers, but Bill, there ain't no such thing as early Vikki Carr pop nowadays, and good riddance. So where's this combination of lovely voice, Muzak orchestration, and low-profile songs supposed to cross over to? The most popular entry, *Playin' Hard to Get*, a cut above the others and "different" in that it drops down the scale when it hits the chorus, has not crossed over on the radio.

I think a voice of the caliber of Fricke's deserves a little more responsible behavior out of those purporting to manage it than the voice of just any dizzy Liz who hitchhikes in from the sticks. But at best the backdrop Fricke gets here identifies itself with those automated country stations run by greasy characters in leisure suits. You know the symptoms: a too-clean spangle of acoustic guitars, strings cutting in too soon, too furiously, and staying too long, a simple-minded bass line, and the sound of tokenism laid heavily on the occasional steel guitar. This is all true of everything here except the last cut, the surprising *Got My Mojo Working*, in which the instrumentation is reasonably basic. Including it was probably Fricke's own doing—as including *Don't Rain on My Parade* in her stage show is—and, though it is not the very best kind of song for her, it is a blessed relief from all that *production*. Jeez, Billy, back off, will you? N.C.

ART GARFUNKEL: *Fate for Breakfast* (see *Best of the Month*, page 70)

RECORDING OF SPECIAL MERIT

GICHY DAN: *Beachwood #9*. Gichy Dan (vocals and instrumentals). *Laissez Faire; Splendor in the Grass; The Lady from the Caribbean;* and five others. RCA APL1-2938 \$7.98, © AFS1-2938 \$7.98, © AFK1-2938 \$7.98.

Performance: **Excellent**
Recording: **Excellent**

Though August Darnell is not one of the performers in Gichy Dan, his melodies, lyrics,

and production make him the real star of the group. Darnell, you may remember, wrote the lyrics to go with Stony Browder's melodies on the two albums by Dr. Buzzard's Savannah Band, the first of which included the oddball hit *Cherchez la Femme/Whispering*. Gichy Dan's performances here are sprightly and enticing, but at bottom the group is just the latest vehicle for Darnell's writing.

And that may be a problem. Darnell is a terrific talent: his melodies are frisky on up-tempo numbers and seductive on ballads; his lyrics have a cosmopolitan wit and sass that will delight anyone concerned about the low state of lyrics in contemporary music. But he just might be *too* good for disposable pop music. Delightful as "Beachwood #9" is, I have the uncomfortable feeling that there's no mass audience for it. If that proves to be true, I can only suggest that Darnell direct his talents toward the Broadway stage. I can easily imagine these songs being performed with costumes and movement and a broad wink from the footlights that reaches all the way to the third balcony. One of Darnell's greatest assets is his relaxed and tender sense of musical humor, and some of the cuts here include the kind of whimsical references to other songs that Darnell and Browder made in *Cherchez la Femme*. The biggest jump-and-dance track is *Laissez Faire*, which has snatches of *Volaré*, *Don't Be Cruel*, *Que Sera Sera*, and *Hold Tight*. Another song, *Young Hearts*, segues into the old Mickey and Sylvia hit *Love Is Strange*. All told, the album is a brilliant exercise in phonographic theater, but I think Darnell—and his admirers—would be much better off if he actually put it on the stage. *That would be a show worth seeing.*

J.V.

IRONHORSE. Ironhorse (vocals and instrumentals). *One and Only*; *Sweet Lui-Louise*; *Jump Back in the Light*; *Tumbleweed*; *State-line Blues*; and five others. SCOTTI BROTHERS SB 7103 \$7.98, © TP 7103 \$7.98, © CS 7103 \$7.98.

Performance: **Crash-boom**
Recording: **Good**

Ironhorse is Randy Bachman's first group since he departed Bachman-Turner Overdrive, and this album is his first since last year's self-pitying solo, "Survivor." Once again Bachman goes back to big-beat rock-and-roll, at which he is very good, but I can't help thinking he is capable of something more lyrical and subtle. The only evidence I have for that is an eerie, fascinating song he wrote a decade ago called *Wednesday in Your Garden*. Maybe it was a one-shot, but it still grabs me.

Perhaps Bachman's reliance on crash-boom rock—the sound of the better bar band taken to the *n*th degree—is practical. He is a Canadian artist who got a part of the American market via the Guess Who and Bachman-Turner Overdrive, and he must retain it in order to earn a living. If American artists and producers are shy about significant changes in their musical direction, how must it be for Canadian rockers, who in effect are appropriating a foreign musical form? I know Bachman has to pay his rent, but then again, is he still going to be doing this sort of thing when he's forty-five?

J.V.

THE KENDALLS: *Just Like Real People*. Jeannie and Ross Kendall (vocals); instru-

mental accompaniment. *I Had a Lovely Time*; *Mandolin Man*; *Love Seeds*; *Falling in Love*; *Love Is a Hurting Thing*; and five others. OVATION OV-1739 \$7.98, © OV8-1739 \$7.98, © OVC-1739 \$7.98.

Performance: **So-so**
Recording: **So-so**

Royce Kendall and his daughter Jeannie with the piping voice have a nice, light touch with singles, but an album full of their stuff is bound to have its thin places, and this one sure does that. The Kendalls probably are traditionalists, but there's not an ounce of dogma about them anywhere, so they are charming and "contemporary" in a way. Their peculiar blend of these qualities makes them

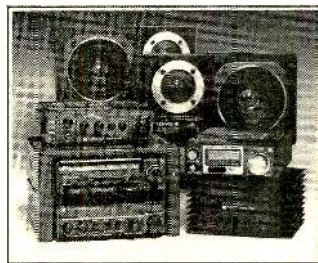
welcome on a juke box and not bad live. But they are not dynamite singers and their taste in music is not teddibly deep. If you want to hear them do well what they *do* do well, it might be cheaper to wait for a single of *Never My Love*. It's dang near as catchy as *Pittsburgh Stealers*, with a sashaying tempo and a syncopated beat. But what the Kendalls *don't* do particularly well, unfortunately, is most of the rest of the album. N.C.

GLADYS KNIGHT. Gladys Knight (vocals); instrumental accompaniment. *Am I Too Late*; *You Bring Out the Best in Me*; *My World*; *I (Who Have Nothing)*; *You Don't Have to Say I Love You*; *The Best Thing We Can Do Is Say Goodbye*, and four others. COLUMBIA JC

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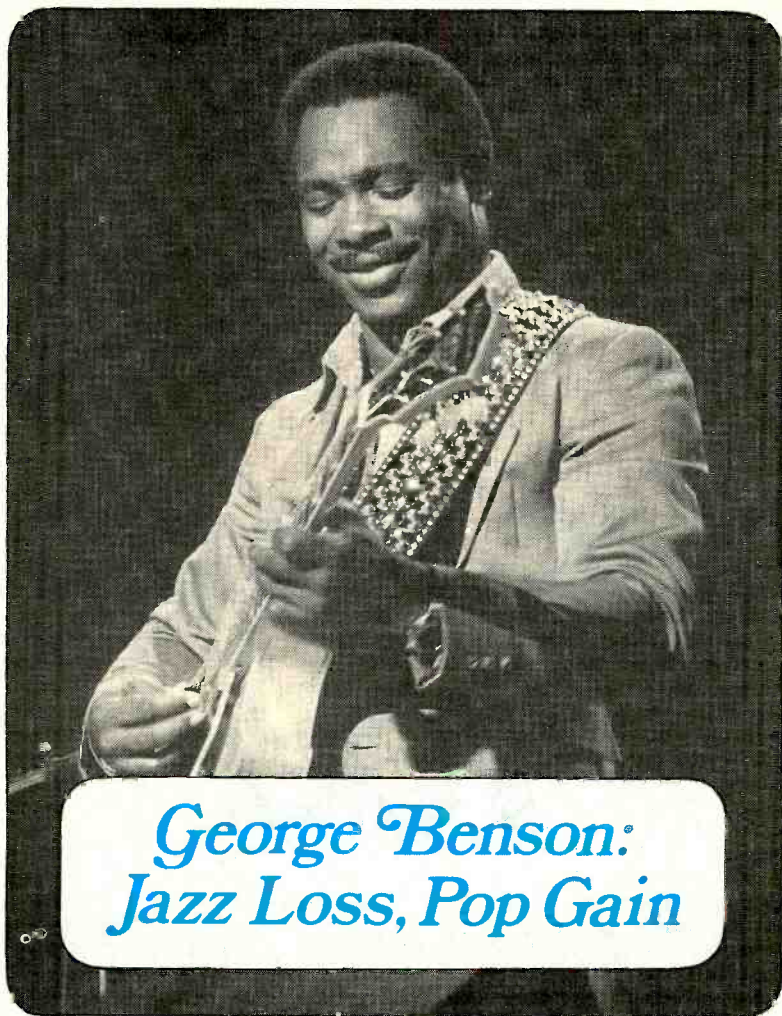
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George Benson: Jazz Loss, Pop Gain

THERE are some who continue to lament George Benson's swift passage from the ranks of gifted young jazz instrumentalists to the moneyed world of popdom. Recently, a venerable jazz pianist—who, like Benson, hails from Pittsburgh—told me, "I'm disgusted with him. He could be one of the greatest jazz guitarists of all time." But instead of opting for a spot in the Elysium of creative giants some years hence, Benson has chosen the more immediate rewards of mass adulation by blending his voice with his guitar to produce an easygoing, easy-listening kind of music that appeals alike to those who have and those who have not heard of Charlie Christian, the long-deceased titan who all but invented jazz guitar.

I don't myself fault Benson for his choice, and I see nothing in his current work that is inconsistent with his earlier career. His involvement in popular music predates his exposure to jazz, reaching back to his childhood when he played the ukulele and sang for coins in the streets of the Steel City. When he made his first recordings (at the age of eleven) for some little-known label, it was as a singer rather than an instrumentalist. Furthermore, he played with his own and other rhythm-and-blues groups before being turned on to jazz by hearing some Charlie Parker and Wes Montgomery records. During the early Sixties,

Benson toured with Jack McDuff, a member of the organ-combo school that has never eschewed popular favor. He was, in other words, the beneficiary of many influences and very much shaped by the time in which he developed, a period of liberal and active musical cross-fertilization.

Certain parallels might actually be drawn between Benson and the late Wes Montgomery, who astounded us all with the way he could so swiftly pluck incredible octave statements from his instrument. Both were largely self-taught, and both came from Northern industrial cities, Montgomery from Indianapolis. Though Montgomery is mainly remembered as a jazz artist, he achieved broad acclaim by recording highly marketable versions of Sixties popular songs, such as *Gain' Out of My Head*, *Tequila*, and *The Shadow of Your Smile*, in a way amazingly close to what Benson is doing now. The big difference is that as a singer Montgomery couldn't achieve more than a comfortable croak, but Benson is blessed with a lustrous voice ideally suited to the day's better ballads. So he has chosen to make use of both his instruments by following a respected tradition of jazz-pop crossover. What is most important is that he has retained an impeccable level of musicianship even on his most commercial tracks. He, more than many others, *deserves* to be popular, because

the considerable weight of his talent is balanced by the excellence of his use of it.

Any quibblers and detractors should listen to Benson's new Warner Bros. album, "Livin' Inside Your Love." It is, granted, a heavily "produced" album. The slick arrangements and string augmentations were supplied, for the most part, by Claus Ogerman, who performed similar duties for Wes Montgomery's best-selling "Tequila" album of 1966.

Many of the tracks here are lushly orchestrated invitations to nostalgia, having been lifted from yesteryear's hits. Benson imparts a strong sense of vocal style without seeming to imitate those who made famous such evergreens as *Hey Girl*, *Love Is a Hurtin' Thing*, *Unchained Melody*, and Sam Cooke's unforgettable *A Change Is Gonna Come* (surely one of the most understated protest songs of all time). As a singer, he rides these songs with such mastery that he can strike the deepest chords of sentiment without edging into the maudlin. And he does it all with a manifest earnestness, an overt sincerity that is not dependent on straining, heaving, shouting, or false effects. It is no small feat.

As for Benson's facility on the guitar, the album is sufficient evidence that he has not abandoned the instrument of his calling. For instance, he takes the tawdry ditty *Soulful Strut*, a limited hit vehicle years ago for the Young-Holt Trio, and endows it with layers of color and imagination that raise it to a much higher level. The same ability to build ambitious and continually compelling sound castles from modest materials is apparent on the majority of the tracks. Of course, the music is still not jazz to any significant degree, for Benson's improvisations are executed within a tightly controlled and even arid context. He is working with set arrangements devoid of the excitement that might have resulted from other improvisors' prodding him in unexpected directions. That is the true heart of jazz, and its absence here may be, finally, what separates this album and Benson's other recent efforts from jazz art.

It should be noted that Benson himself wrote several of the selections on the album, among them some of the most breezily pleasant items, including *Before You Go*, *You're Never Too Far from Me*, and *Welcome into My World*, all of which emphasize his guitar artistry. What distinguishes "Livin' Inside Your Love" from some of his other pop sets is the more equitable balance between instrumentals and vocals, with the former even coming out somewhat ahead. The result is possibly the best album George Benson has released yet.

—Phyl Garland

GEORGE BENSON: *Livin' Inside Your Love*. George Benson (guitar, vocals); Ronnie Foster (keyboards); Earl Klugh (acoustic guitar); Ralph MacDonald (percussion); other musicians. *Livin' Inside Your Love; Hey Girl; Nassau Day; Soulful Strut; Prelude to Fall; A Change Is Gonna Come; Love Ballad; You're Never Too Far from Me; Love Is a Hurtin' Thing; Welcome into My World; Before You Go; Unchained Melody.* WARNER BROS. 2BSK 3277 two discs \$14.98. © 2W8 3277 \$14.98, © 2W5 3277 \$14.98.

lime "Street Hassle" in much the same way that his other solo records trivialized his stuff with the Velvets. Withal, it's fascinating. Where else can you hear anything as downright weird as the title track, a sprawling nine-minute opus that manages a synthesis of punk, Mike "Tubular Bells" Oldfield, and the horn section of the Residents? That begs the question of why you'd want to, of course, but in the meantime here's another completely unfathomable installment of Lou Reed's Master Plan. S.S.

THE ROCHES (see Best of the Month, page 72)

THE ROCKETTS. The Rocketts (vocals and instrumentals); other musicians. *Can't Sleep; Turn Up the Radio; Lost Forever/Left for Dreaming; Long Long Gone*; and four others. RSO RS-1-3047 \$7.98, © 8T-1-3047 \$7.98, © CP-1-3047 \$7.98.

Performance: **Formulaic but honest**
Recording: **Good**

Some of the Rocketts used to be members of Mitch Ryder's Detroit Wheels, an ensemble that was about the closest America got in the Sixties to producing a home-grown version of the Rolling Stones. At this point, however, even though John Badanjek is perhaps the most exciting hard-rock drummer this side of Charlie Watts (you'll have to take that on faith if you haven't heard these guys live), they're merely a better-than-average bar band playing an entertaining, if utterly conventional, brand of Michigan Scrapheap Boogie. So they'll probably make the transition to stadium-attraction stardom in fairly short order. Meanwhile, their album has two fairly impressive tracks: a nice-enough run-through of the old Fleetwood Mac rouser *Oh Well* and Badanjek's *Turn Up the Radio*, an ode to rock-and-roll spirited enough to make you forget that you've heard it all before. Listen, guys, Mitch Ryder's still around and he really needs a new back-up band, and...well, I can dream, can't I? S.S.

RECORDING OF SPECIAL MERIT

GARY STEWART: *Gary.* Gary Stewart (vocals, guitar); Harold Bradley (bass); Terry McMillan (harmonica); Hal Rugg (steel guitar); Buddy Harmon (drums); other musicians. *Mazelle; Shady Streets; The Same Man; The Blues Don't Care Who's Got 'Em; I've Just Seen the Rock of Ages*; and six others. RCA AHL1-3288 \$7.98, © AHS1-3288 \$7.98, © AHK1-3288 \$7.98.

Performance: **Intense**
Recording: **Very good**

Gary Stewart has surmounted the honky-tonk singer's bane (the danger of becoming stylized to the point of self-parody), stretched his and the subgenre's horizons, and made his best album yet. "Gary" is also his most studio-ish album, with backing by some Nashville session stalwarts and songs written by various songwriters-about-town. That combination has produced some stale albums in the past, but this time it clicks, probably because Stewart gives it the necessary energy. He certainly picked out some interesting songs, to start with, and he sings with a new maturity, a much greater authority than on any previous album. The band picks this up and provides some of the most alert and tasty

backing I've heard any singer receive lately.

As far as subject matter goes, this isn't a honky-tonk album at all; the songs go everywhere, including outdoors, effectively going on about walking shady streets in shiny shoes. (Speaking of walking, there's a haunting version of Jack Tempchin's *Walkaway*.) But a kind of honky-tonk *Angst* connects it all together, and Stewart quietly proves he's the perfect singer for such a program. He always had the style; what a treat to encounter all this content. N.C.

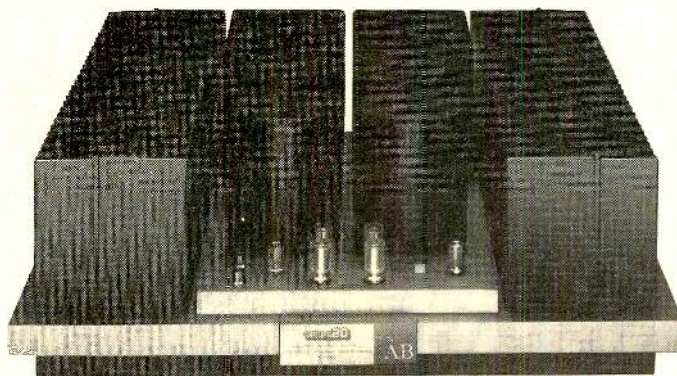
SUPERTRAMP: *Breakfast in America.* Supertramp (vocals and instrumentals). *Gone Hollywood; The Logical Song; Goodbye Stranger; Oh Darling; Lord Is It Mine*; and five oth-

ers. A&M SP-3708 \$8.98, © 8T-3708 \$8.98, © CS-3708 \$8.98.

Performance: **'Cor!**
Recording: **Lush**

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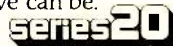
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Sheri Lynn Behr

Patti Smith Has Not (Yet) Gone Disco

PERHAPS the first thing I should tell you is that, no, Patti Smith has not Gone Disco. That is not necessarily to say that she won't in the future, but merely that she's got quite enough public-relations problems right now, thank you very much. The second thing I should tell you is that her new "Wave" isn't my favorite Patti Smith album, but then I'm one of the only people I know (Patti and her band excepted) who think the much maligned "Radio Ethiopia" contained some of the most exciting hard rock of the Seventies. What this is is clearly the result of a case of the superstar jitters, one of those classic morning-after records produced under the pressure of following up a hit (in this case, "Easter" and its *Because the Night* single, the success of which I suspect caught even Patti off guard).

The particulars stack up like this. Todd Rundgren's production, which was the big question mark surrounding the project, in and of itself practically qualifies him for a seat in the rock-and-roll Hall of Fame. Apart from the sheer sound of the thing—and it has all the depth and punch you could hope for—it's pretty obvious that he encouraged Patti to cut the crap and really sing, which she does almost throughout the record. Her phrasing is worlds less mannered, less wayward than in the past, and, while she doesn't raise goosebumps as often as a result, the cringe factor has decreased immeasurably. Where this really helps is on the haunting, hypnotic *Dancing Barefoot*, a nice cover of the Byrds' *So You Want to Be (A Rock 'n' Roll Star)* that works despite the fact that Patti glosses over its wry

humor (well, I suppose she's got a right to be bitter); an interesting "Abbey Road" steal called *Revenge*, in which she pulls off a convincing reversal of the Rolling Stones' mid-period misogyny; and, most particularly, *Frederick*, which I plan to put on a "Very Best of Patti Smith" cassette I am compiling. Patti's always wanted to be a one-woman Spector group, and on *Frederick* (which features her singing harmonies with herself and doing some background "oohs" that are as cute as a bug's ear) she does it up right. It's an absolute charmer: musically a kind of up-tempo *Because the Night* played sideways, and lyrically one of her wonderful mixtures of the childlike, the spiritual, and the horny—the kind of love song you hope somebody will write for you some day if you're very lucky. I practically wore out the grooves on it before I even got around to listening to the rest of the album.

Which, as it turns out, is probably the way you should approach "Wave," because if you thought "Radio Ethiopia" had its—shall we say—self-indulgent moments, then you're not going to believe some of the rest of this stuff. Consider *Seven Ways of Going*, an endless one-riff neo-psychedelic freakout number that proves nothing beyond the fact that drummer Jay Dee Dougherty would have made a great replacement for Keith Moon, or *Broken Flag*, a martial ballad that could pass as a mediocre out-take from a Linda Ronstadt session with lyrics vague enough to be about anything from the death of Sixties idealism to Betsy Ross' working conditions. But the absolute nadir is the title cut, which is about the most flatulent nonsense I've ever heard, consisting of nothing more than some ocean sound effects, some vaguely Spanish noodling on the piano, and Patti babbling one side of a conversation she's having with a guy she's trying to pick up. She's done an astonishing turnabout from the lesbian lust of the first album's *Redondo Beach* to this unintentionally comic update of Annette Funicello in an American International surf movie. Patti Smith in *How to Stuff a Wild Bikini?* The mind boggles.

BUT I'm being harder on this record than it deserves, for there is some very good stuff here—in the case of *Frederick* some very very good stuff—and, while the bad stuff is ridiculous, in some way I am unable to fathom it at least comes off as sincere. Yes, "Wave" is dumb at times, but I'd rather listen to Patti and her band overreach and fall on their faces than to most mainstream rock acts deliberately pitching under my head and hitting me in the face. You can tell that actual living, feeling, human beings made this record, a switch for which these days we have to be grateful. Meanwhile, I hope Rundgren produces her forever. If ever a collaboration was made in heaven, this one between two of the most gifted flakes of our generation is it.

—Steve Simels

PATTI SMITH GROUP: *Wave*. The Patti Smith Group (vocals and instrumentals). *Frederick; Dancing Barefoot; So You Want to Be (A Rock 'n' Roll Star); Hymn; Revenge; Citizen Ship; Seven Ways of Going; Broken Flag; Wave*. ARISTA AB 4221 \$7.98, © AT8 4221 \$7.98, © ATC 4221 \$7.98.

with the help of me mates. Me mum says I am very good. Me dad don't have much to say, as he went to a union meeting several years ago and never returned.

Me mum says I should write a fair number of songs about alienation and the place of the anti-hero in a neurotic society because this will make people in Los Angeles weep, so I have included some on the tape. I truly hope you will accept this tape as soon as you can because I feel I have a musical statement to make and if me and me mates cannot leave here soon we will all be nationalized by the bloody government. I remain, most sincerely, yours,

KEVIN WOLLOP
(J.V.)

RECORDING OF SPECIAL MERIT

DWIGHT TWILLEY. Dwight Twilley (vocals, guitar, piano, harmonica); Bill Pitcock IV (guitar, bass); Jim Lewis (bass, drums); other musicians. *Out of My Hands; Nothing's Ever Gonna Change So Fast; Runaway; Betsy Sue; Darlin;* and four others. ARISTA AB 4214 \$7.98, © AT8 4214 \$7.98, © ATC 4214 \$7.98.

Performance: **Very good**
Recording: **Good**

Dwight Twilley doesn't do anything radical with the rock format, but he sure does rock it, and I think he has the little extra something that pulls a rocker up above the herd. His tunes have the mark of a pro on them, and the way he drives the beat reminds me of Elvis Costello. Twilley has different interests, though; his favorite thing about rock seems to be the rhythm guitar, as that's what's at the center of his music. His lyrics are cut to a purpose, but he does show more interest in lyrics than is common or expected nowadays. Whatever, it all comes together and takes hard rock higher than it has been lately. N.C.

TYCOON. Tycoon (vocals and instrumentals). *Such a Woman; Slow Down Boy; Don't You Cry No More; Too Late (New York City);* and six others. ARISTA AB 4215 \$7.98, © AT8 4215 \$7.98, © ATC 4215 \$7.98.

Performance: **Busy**
Recording: **Good**

There isn't much to say about Tycoon except that their clinical approach to *haute pop* is commercially successful (*Such a Woman* is the hit single here) and they have terrific energy. But they have a "committee" sound, an amalgam of writing and arranging ideas adapted from other, older bands. The aggressive vocals remind me of Three Dog Night (as do the arrangements), and one number, *Don't You Cry No More*, is so close to Kansas' *Carry On My Wayward Son* that nostrils may even now be twitching in some lawyer's office. But pop music tends to go in cycles, so there's room for a reincarnation of a defunct group. Tycoon's impersonation of Three Dog Night is close—close, but no cigar. J.V.

UK: Danger Money. UK (vocals and instrumentals). *Rendezvous 6:02; The Only Thing She Needs; Caesar's Palace Blues;* and three others. POLYDOR PD-1-6194 \$7.98, © 8T-1-6194 \$7.98, © CT-1-6194 \$7.98.

Performance: **Pompous**
Recording: **Good**

UK plays British "university music," a type of pompous rock played with some skill but

overintellectualized and burdened with too-precious melancholia. The photos on the album's back cover show a trio of solemn-faced lads, one of them, Eddie Jobson, clad in a black turtleneck, staring dolefully at the camera while holding up his transparent plastic violin.

The material is predictable. The title tune has to do with a soulless secret agent licensed to kill. *Rendezvous* 6:02 describes a fellow going to the Victoria railroad station to find that Mr. Death, the ticket clerk, is ready to welcome him on the 6:02 train. And so on and so on. The performances wallow in the Armageddon-is-near syndrome. This kind of musical impersonation of Hamlet is common to certain young musicians of this and the last generation, and doubtless the next generation will produce its own corps of sophomore misanthropic musicians. But it's kid stuff all the same. J.V.

PAUL WILLIAMS: *A Little on the Windy Side*. Paul Williams (vocals); instrumental accompaniment. *My Fair Share*; *The Gift*; *Save Me a Dream*; *For Goodness Sake*; *Moonlight Becomes You*; *For the Life of Me*; and five others. PORTRAIT JR 35610 \$7.98, © JRA 35610 \$7.98, © JRT 35610 \$7.98.

Performance: **Commercial**
Recording: **Commercial**

Paul Williams, a short person you've probably seen masquerading as an end table in various TV appearances, starts things off on the wrong foot here with his version of the old Johnny Burke/Jimmy Van Heusen *Moonlight Becomes You*. He takes it at a strange off-tempo that destroys whatever charm the song had in the first place, and why he chose it to lead off a new album that otherwise comprises only his own material is a mystery. There's no mystery, however, about Williams' marketing approach, at least not any more. His method is to write songs in several different styles—such as the hip-but-hurting-deep-down *A Little on the Windy Side*, the cutesie, elaborately naïve *For Goodness Sake*, and the you-name-it *For the Life of Me* ("Loving with the lights on/To watch our passion rise/Love will fill my cup/I can keep this up/For the life of me")—record them, and throw them against the marketplace wall to see which one will stick. Some have. I was among his early fans, and it took me several albums to realize that Williams' greatest gift is facility and his major talent self-promotion. Besides that, I think Randy Newman was right. P.R.

BILL WITHERS: *'Bout Love*. Bill Withers (vocals, guitar); instrumental accompaniment. *All Because of You*; *Dedicated to You*; *My Love*; *Don't It Make It Better*; *Look to Each Other for Love*; *Memories Are That Way*; and three others. COLUMBIA JC 35596 \$7.98, © JCA 35596 \$7.98, © JCT 35596 \$7.98.

Performance: **Disappointing**
Recording: **Good**

Bill Withers' unaffected, straight-from-the-gut way of delivering his songs, with their down-home, folksy themes, has long made him one of my favorites. These characteristics have marked him as an artist who listens to his own muse, disdaining pressures to conform. Considering his image as a firm individualist, this album is something of a disappointment. With one or two exceptions, it fol-

lows the dominant and deadly mode of the day. This is obvious from the opening track, an innocuous morsel called *All Because of You*. There is absolutely nothing special about it; the overdriven bass announces that it is just another disco number, and not a very exciting one at that. Most of the album follows suit. It's good enough ordinary music, but who needs more ordinary music at a time when we have so much of it? What happened to the lovable Bill Withers we knew, the one who always sounded so convincing?

The reason becomes apparent only on examining the credits. Just about all the songs here were written by Paul Smith, the young keyboardist who co-produced the album. So this isn't really Withers' set at all, but rather

an unsuccessful attempt to recast him in the popular disco mold. It doesn't work. The album's single saving grace—a considerable one—is the final track, the delicately ruminative ballad *Memories Are Like That*. The guitar line is haunting, and Withers' voice rises above it like the cry of someone futilely grasping for a lost past containing all that was true in his life. This is the real Bill Withers, not the inconsequential dude who thumps his way through the rest of this set. I only wish the album had been constructed on a base as solid as its conclusion. P.G.

RON WOOD: *Gimme Some Neck*. Ron Wood (vocals, guitar); Keith Richards (vocals, guitar); Charlie Watts, Mick Fleetwood (drums);

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other musicians. *Worry No more; Breakin' My Heart; Delia; Buried Alive; Come to Realize; Infekshun; Seven Days*; and four others. COLUMBIA JC 35702 \$7.98, ® JCA 35702 \$7.98. © JCT 35702 \$7.98.

Performance: **Nice but pointless**
Recording: **Good**

Ron Wood's new solo album is one of those friendly, basically likable efforts that nonetheless seem like the work of a talented sideman indulging himself without much to say. There's no question he's an excellent musician, at least in the studio, and that he deserves a lot of the credit for revitalizing the Stones. But there's also no question that his voice is unremarkable and that the only in-

strument he displays any real personality on is bass guitar, which he's rarely touched since his tenure with Jeff Beck and doesn't here either. As a front man, except in a few cuts on his first record (which was recorded at home and consequently had a certain appealingly folkish informality), he basically sounds like the Faces and the Stones reduced to formula: boozy, brash, and forgettable. On "Gimme Some Neck," the presence of his mates from both those bands and Roy Thomas Baker's unnecessarily slick production make the essentially one-dimensional nature of Wood's songs more obvious. Here's hoping that the long-awaited solo debut by Mick Taylor, his predecessor with the Stones, has a little more spark to it. S.S.



RECORDING OF SPECIAL MERIT

CELI BEE: *Fly Me on the Wings of Love*. Celi Bee (vocals); vocal and instrumental accompaniment. *Fly Me on the Wings of Love; Can't Let You Go; For the Love of My Man*; and two others. TK/A.P.A. A.P.A.-77003 \$7.98, ® A.P.A.-77003 \$7.98, © A.P.A.-77003 \$7.98.

Performance: **Star stuff**
Recording: **Excellent**

There are really two Celi Bees. One knows disco. I mean she doesn't just *sing* disco, she also *does* disco. This is the Celi Bee who urges us to fly higher, higher through nearly thirteen nonstop disco-dancin' minutes in the title song of this LP. And it's the same Celi Bee whose voice works itself so successfully into the music that it virtually becomes one of the instruments. In *Boomerang*, which she also wrote, she bounces all over, shifting from voice to echo to music and back again. This kind of partnership between singer and musicians may be disco's most important contribution to pop music, though precisely this interaction seems impossible for many mainstream pop singers who attempt to make disco records. (Of course, being married to your composer and producer, as Celi Bee Soto is, may help.)

The other Celi Bee is showcased in this album's three ballads. *For the Love of My Man*, especially, shows that she can emote with the best of today's MOR pop ladies and is musical enough to move very comfortably through some nice harmonizing. She even puts a good Dionne Warwick torch to *You're the Best Thing (That Ever Happened to My Life)*. Well, you can't dance *all* the time. Disco your way through side one of this album, then sit down and *listen* to side two. It's worth it. *E.B.*

CHER: *Take Me Home*. Cher (vocals); vocal and instrumental accompaniment. *Take Me Home; Wasn't Good; Say the Word; Let This Be a Lesson to You; Git Down (Guitar Groupie)*; and four others. CASABLANCA NBLP 7133 \$8.98, ® NBL8 7133 \$8.98, © NBLC 7133 \$8.98.

Performance: **Très Cher**
Recording: **Terrific**

This album frustrates me. All the best that engineering, arranging, and "packaging" can do these days (and that's a lot) is here brought to bear on the limited talents of a singer seeking to revive a flagging career. Result? One smash hit and a failed album.

The album isn't all disco. *Let This Be a Lesson to You* is a tedious soft-rock song with a twang; much of side two consists of even more tedious ballads. Cher works her way through them with her characteristically unshaded, unfelt, hog-calling approach to sing-

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ing, although she does manage to soften up and sing *My Song* supported only by a quiet guitar, and it actually works. If there were more great disco cuts like the title song and *Happy Was the Day We Met*, the very best cut on the album, this would be a good dance record. And that's why I'm frustrated: so much care has been lavished on these big, hustling (though hardly ground-breaking) disco arrangements, so much care has been taken to capture the lush orchestrations and first-rate background vocals, that I wonder what the album would be like with a singer who contributed something. Yes, Cher sings them all, wowing them on every high note and diving down through virtually every extended line. But that's all she does.

Of course, that's all she's ever done, and that's what she's always sounded like. Cher is still Cher, even when she's trying to go disco.

E.B.

GLORIA GAYNOR: *Love Tracks*. Gloria Gaynor (vocals); vocal and instrumental accompaniment. *I Will Survive*; *Please, Be There*; *Goin' Out of My Head*; *You Can Exit*; *Substitute*; and three others. POLYDOR PD-1-6184 \$7.98, © 8T-1-6184 \$7.98, © CT-1-6184 \$7.98.

Performance: **Trying hard**
Recording: **Workmanlike**

Who says disco people have no heart? That they couldn't care less about lyrics, interpretation, voice quality? That all they want is the beat, beat, beat? Well, part of the enormous success of Gloria Gaynor's "comeback" disco smash, *I Will Survive*, is clearly due to sentiment. The song has a definite "remember me" appeal; Dolly's been away, but now she's back to stay. There's more to it, of course. The song is excellent and deserves its success on lots of levels. I wish I could say the same for the rest of this album. Except for a dandy, bouncy number called *I Said Yes*, there is a distracting distance here between us and the music. The straight disco cuts—*Stoplight*, for example—start out energetically enough but deteriorate into mere repetition after the first minute or so. And the album's non-disco songs—soul ballads such as *Please, Be There* and *You Can Exit*—lack any distinctive character. Part of the problem may be the engineering, which showcases Gaynor too much and muffles the supportive music and, yes, the beat. But the singer herself must share the blame. She just doesn't seem terribly involved with singing this music. Perhaps that was always true. But today, with so much competition, merely workmanlike disco performances don't make it any more. Aside from *I Will Survive*, with its special attention to shifting dynamics and high-stepping enthusiasm, Gloria Gaynor survives but she doesn't really live.

E.B.

GQ: *Disco Nights*. GQ (vocals and instrumentals). *Rock Freak*; *Make My Dream a Reality*; *It's Your Love*; *Boogie, Oogie, Oogie*; and four others. ARISTA AB 4225 \$7.98, © AT8 4225 \$7.98, © ATC 4225 \$7.98.

Performance: **Very nice**
Recording: **Excellent**

This is sweet, sweet disco, for good, easy dancing. And, rarity of rarities, the album has the full-length disco version of *Rock Freak*, GQ's bid for disco stardom, instead of a watered-down remix of what you might actually

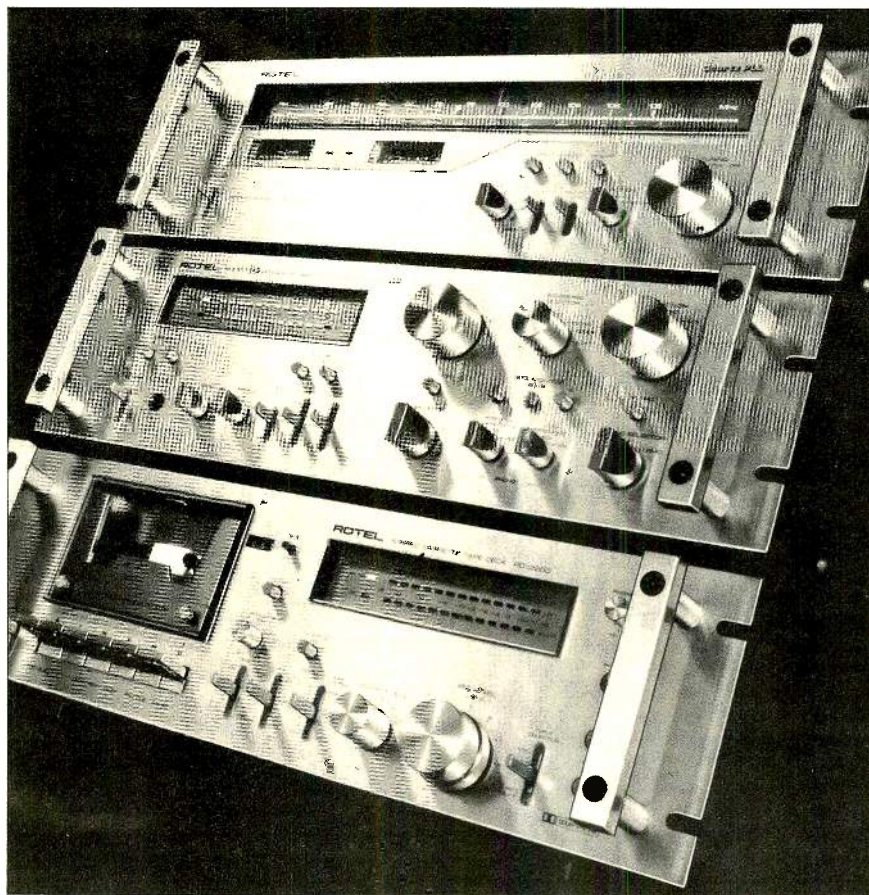
hear at the dance palace. That was a wise move, because *Rock Freak* is laid-back, even romantic—good dance music for the quieter part of the party. I have the same good feelings about *Make My Dream a Reality*, with its super keyboard background and powerful soul-inflected lead vocal by Emmanuel Rahiem LeBlanc, GQ's version of Taste of Honey's *Boogie, Oogie, Oogie*, and the up-tempo hand-clapper called *This Happy Feeling*. Throughout the album there are indications of the fine musicianship of the four members of GQ, especially that of LeBlanc (listen to the diversity of singing styles he brings to the all-round best cut, *Wonderful*) and keyboardist Herb Lane. For a measure of Lane's contribution to GQ, listen to how he

singlehandedly (doublehandedly?) makes *I Do Love You* much more memorable than countless similar walkaround numbers by similar black groups.

GQ is undeniably good, but they face stiff competition from a number of other talented groups with similar styles and material. Live-performance experience might be just what they need to give them that final spark I find missing on this very promising debut album.

E.B.

HERBIE HANCOCK: *Feets Don't Fail Me Now*. Herbie Hancock (keyboards, vocals); instrumental and vocal accompaniment. *You Bet Your Love*; *Knee Deep*; *Tell Everybody*; *Honey from the Jar*; and two others. Co-



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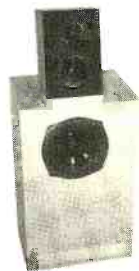
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LUMBER JC 35764 \$7.98, © JCA 35764 \$7.98, © JCT 35764 \$7.98.

Performance: **Destination disco**
Recording: **Good**

Herbie Hancock's metamorphosis has been slow, but this album seems to complete it. Once a brilliant, dedicated jazz pianist, Hancock spent several years in fusion limbo before dipping his toes in disco on the perfectly dreadful "Sunlight" album, a pale mishmash on which he made his vocal debut via an electronic gadget called the Vocoder. After hearing that album, I commented that Hancock might as well go all the way and plunge wholeheartedly into disco, severing, as it were, his umbilical cord to jazz. That is exactly what he has done on "Feets Don't Fail Me Now," but I'm afraid the result, which can only be judged as a disco product (and "product" seems an appropriate term here), is rather low-grade. There are moments when Hancock whips up a good funk, but those Vocoder vocals still sound like something from a low-budget sci-fi movie.

Hancock's name and the thumped-up formula he uses here will probably result in sales figures far exceeding those generated by even his most commercially oriented jazz albums. I don't begrudge him commercial success, but we are hearing less of Hancock and more of his gadgets these days, and he is simply too talented to hide behind all that technical equipment. C.A.

RECORDING OF SPECIAL MERIT

THE RAES: *Dancing Up a Storm*. The Raes (vocals); instrumental accompaniment. *A Little Lovin' (Keeps the Doctor Away)*; *I Only Wanna Get Up and Dance*; *Don't Make Waves*; and four others. A&M SP-4754 \$8.98. © 8T-4754 \$8.98. © CS-4754 \$8.98.

Performance: **Hoo-Rae**
Recording: **Fine**

The Raes have got it. *A Little Lovin' (Keeps the Doctor Away)* was a winner on the dance floor and has now become the launching pad for a whole LP very aptly titled "Dancing Up a Storm." It is a happy disco album, strong on both musical and atmospheric values, and it belongs in your party library.

As good and successful as the first song is, it isn't the best thing in the album. The Raes show considerable versatility as a singing group. They take turns in lead vocals, and they use the close harmony that characterizes *A Little Lovin'* with great skill elsewhere, sometimes to accent the beat (*I Only Wanna Get Up and Dance*), at other times to provide jazzy Forties background (*Gonna Burn My Boogie Shoes*). Add to their varied vocalism some nicely varied arrangements and you have a disco album that is full of surprise and fun.

With only one exception, the tempos here are fast. *Don't Make Waves* is, in fact, exhausting. But *School* shows that the Raes can get fast and funky too; there is a long, essentially instrumental finale to this song that pits downright dirty drums and space-trip electronics against simulated piano with totally on-target results. Finally, the group toughens up its act with a great cut on side two called *Don't Turn Around*. They rip the place apart with a fresh rock-disco sound that keeps threatening to turn into Fleetwood Mac. *This*

(Continued on page 125)

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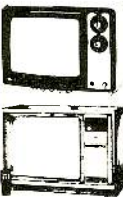
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cut is the best thing in the album. In case you haven't guessed, I like the Raes—a lot. *E.B.*

RECORDING OF SPECIAL MERIT

GINO SOCCIO: Outline. Gino Soccio (vocals and instrumentals); vocal and instrumental accompaniment. *Dancer; The Visitors;* and three others. RFC/WARNER BROS. RFC 3309 \$7.98, © M8 3309 \$7.98, © M5 3309 \$7.98.

Performance: **Masterly**
Recording: **Disco dazzling**

The world—the disco world, anyway—has been waiting to see what producer Ray F. Caviano would do with RFC Records, his very own disco label, a gift from Warner Bros. Well, now we know. Judging from this first RFC release, Caviano intends to use his new toy to make us all dance until we drop.

Gino Soccio's "Outline" is Eurodisco. What this means is, first, a heavily electronic sound. In fact, Quebec-born Soccio previously recorded as Kebekelektrik, a name that associated him with the sound of such German groups as Kraftwerk. Eurodisco also means densely layered music, with new rhythms and melodies emerging from below the surface. It means sudden changes in texture—for example, from rich reverberation to flat, up-front, "dead" room sound—calculated to move the dancer to fresh plateaus. It means lyrics, like those in *Dancer*, that call your attention primarily to yourself, feeling "the power of your body" when you are "dancin' to the music." Finally, it means engineering that meets every challenge of the wide dynamic range and multiple tracking. On all counts, "Outline" is a solid winner, an exciting, important debut.

The album's super hits—*Dancer* and *Dance to Dance*—show how well Soccio understands this kind of music and demonstrate his mastery of the techniques needed to create top-drawer disco. But other cuts show other aspects of his talent. He is of considerable interest as a singer-lyricist, for instance, as in *The Visitors*, a song about messages that Earth may have received from outer space. It's a lot more thoughtful than the songs you usually hear on a disco album, and Soccio sings it very pleasantly indeed. *There's a Woman* uses a nonstop electronic double beat supporting a simple tune that is never fully developed but still shows Soccio's feeling for soft rock. Both these songs are very good dance numbers too, but Soccio's imagination has raised them to a special level. So hats (and shirts!) off to Gino, and may there be many more records of this quality from RFC. *E.B.*

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(List compiled by John Harrison.)

(Continued on page 128)



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Culver Pictures

Look Ma, I'm Nancy Walker (left), and (right) Pvt. Irving Berlin

Original-cast Rarities

COLLECTORS of the original-cast albums of old musical comedies are always boasting about the dollars they have plunked down in order to become the proud owners of such items as *Texas, L'il Darlin'* and *Mexican Hayride*, and I can't help wondering how they feel about their treasures now that Columbia's Special Products Division has arranged to sell reissues of these and other recordings.

Six rare old shows (all originally on Decca) are available now, two to a record, with more to come, and in each case the entire contents of an original-cast 10-inch album has been squeezed onto a single 12-inch side without cutting anything. The question is whether those contents make these once much-sought-after prizes worth owning now that anyone can have two of them for the price of one standard LP. The quality varies widely, from the lackluster tunes of Morton Gould's half-hearted score for *Arms and the Girl* to the tuneful splendors of Cole Porter's pseudo-Latin songs for *Mexican Hayride*. But there's certainly plenty of top professional entertainment on the six sides released so far. Irving Berlin's *This Is the Army*, for example, which opened in 1942 with an all-male, all-soldier cast, gave the world such deathless songs as *I Left My Heart at the Stage Door Canteen* and *This Is the Army, Mr. Jones*. But the number that really wakes the album up is *What the Well-Dressed Man in Harlem Will Wear*, sung by Corporal James "Stump" Cross with the

"all-soldier" (and all-black) Swing Band. There is plenty that is cloying and fatuous in this musical (which the *New York Times* greeted as "the best show of a generation"); many numbers that may have brought lumps to our patriotic throats in wartime, such as *American Eagles* and *With My Head in the Clouds*, are just painful embarrassments now. On the other hand, the final cut lets us hear that living legend, Mr. Irving Berlin himself, singing *Oh, How I Hate to Get Up in the Morning* accompanied by six veterans from the original World War I production of *Yip, Yip, Yaphank*.

Call Me Mister, which opened on Broadway in 1946 when World War II was over, was a revue about soldiers coming back home to face civilian life, which turned out to be fraught with its own kind of perils. There are some distinguished songs with words and music by Harold Rome, beautifully recorded under Lehman Engel's direction. The best performer on the album is Lawrence Winters. The virile baritone portrays a black soldier-hero on the Red Ball Express (which brought supplies to the men who invaded Normandy) who is unable to get a job driving a truck back home. His performance of *The Red Ball Express* is the high point of this recording, which is chiefly memorable otherwise for the moment when Betty Garrett leads a male trio in that anti-rumba diatribe, *South America, Take It Away*.

It is Mexico that takes it away in Cole Porter's *Mexican Hayride*, which featured Bobby Clark as a numbers racketeer hiding out in Mexico City and June Havoc as a lady bullfighter called Montana. Clark, alas, is not heard on the record, but Miss Havoc is, singing *Abracadabra* and the showstopper *Count Your Blessings*—which dares (in a Broadway musical!) to suggest death as the solution for all of life's little problems. Also worth mention are Corinna Mura in *Sing to Me, Guitar* and Wilbur Evans putting over the show's big hit, *I Love You* (written by Porter to win a bet with Monty Woolley that he could too concoct a hit entirely out of clichés). Backing *Mexican Hayride* is *Texas, L'il Darlin'*, a silly show about a back-country senator who rides to office on the sure platform of state pride. Johnny Mercer wrote some clever lyrics for this one, but Robert Emmett Dolan did not set them to particularly clever tunes. The general atmosphere of forced exuberance conveyed by senseless songs is relieved only by *The Big Movie Show in the Sky*, a mock-evangelistic masterpiece that all by itself justifies purchase of the album. I also rather liked Kenny Delmar and Mary Hatcher singing *The Yodel Blues*.

LOOK, MA, I'M DANCIN' has Nancy Walker singing *I'm the First Girl in the Second Row* and *I'm Tired of Texas*, and Harold Lang puts his oddly pleasant voice to work on such pass-

able numbers as *Gotta Dance* and *I'm Not So Bright*. But Hugh Martin's score is not really what was memorable about this musical, which drew its laughs from the satiric choreography devised by Jerome Robbins for Miss Walker and the members of her Russo-American Ballet Company on their cross-country tour. In the case of *Arms and the Girl*, a musical version of *The Pursuit of Happiness* with its jokes about bundling on cold nights during the American Revolution, Morton Gould was called in at the last minute to replace Burton Lane as the composer, but he just didn't do right by Dorothy Fields' fine lyrics. Nanette Fabray as a would-be early-American Joan of Arc and Georges Guétary as the Hessian who falls in love with her struggle valiantly throughout with indifferent tunes, but it's Pearl Bailey as a runaway slave who stops the show with *Nothin' for Nothin'*—which has nothing to do with the plot but does provide some welcome relief from it. Gould (who also wrote the score for *Billion Dollar Baby*) has covered himself with much glory in the musical world, but musical comedy, I guess, is just not his thing. He did, however, orchestrate his own work splendidly, which helps make it easier to get through the wintry wastes of *Arms and the Girl*.

THE notes for all six musicals are by Stanley Green: they are informative, but Green's unrestrained enthusiasm just might make the reader expect somewhat more than he will get as a listener. In all, though, there's certainly enough good stuff here to justify making room for these reissues in your musical-comedy library, where they'll take up only half the shelf space they would have originally.

—Paul Kresh

THIS IS THE ARMY (Irving Berlin). Original-cast recording. Stuart Churchill, Earl Oxford, Ezra Stone, Philip Truex, Julie Oshins, James "Stump" Cross, Robert Shanley, Irving Berlin (vocals); chorus and orchestra, Milton Rosenstock cond. **CALL ME MISTER** (Harold Rome). Original-cast recording. Betty Garrett, Lawrence Winters, Paula Bane, Danny Scholl, Bill Callahan, Jules Munshin (vocals); chorus and orchestra, Lehman Engel cond. COLUMBIA SPECIAL PRODUCTS X 14877 \$7.98.

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LOOK, MA, I'M DANCIN'! (Hugh Martin). Original-cast recording. Nancy Walker, Harold Lang, Sandra Deel, Bill Shirley, Hugh Martin (vocals); chorus and orchestra, Pembroke Davenport cond. **ARMS AND THE GIRL** (Dorothy Fields—Morton Gould). Nanette Fabray, George Guétary, Pearl Bailey, Florenz Ames (vocals); orchestra, Frederick Dvonch cond. COLUMBIA SPECIAL PRODUCTS X 14879 \$7.98.



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JAZZ



LAURINDO ALMEIDA: *Concierto de Aranjuez*. Laurindo Almeida (guitar). *Concierto de Aranjuez; Star Dust; How Insensitive; Fly Me*

to the Moon; Holiday for Strings; and four others. INNER CITY IC 6031 \$7.98.

Performance: **Busy, busy**
Recording: **Good**

LAURINDO ALMEIDA: *Chamber Jazz*. Laurindo Almeida (guitar); Bob Magnusson (bass); Jeff Hamilton (drums). *Unaccustomed Bach; Odeon; Melissa; Turuna; You and I; and four others.* CONCORD JAZZ CJ-84 \$7.98.

Performance: **Very good**
Recording: **Good**

Laurindo Almeida has surely sold several tons of records since his arrival in the United States from South America over thirty years ago. While his musical taste may have been

open to question, it was undeniable that he had a virtuoso guitar technique with a tone steamy enough to melt a Hershey bar at twenty paces. Time hasn't frayed the technique one bit, and his tone still gives off the familiar heat, but his taste has become even more questionable.

The worst first. That's the solo album on Inner City. It features, like a sagging string of marshmallows, the busiest rendition of Joaquín Rodrigo's by-now licked-to-the-stick lollipop, the *Concierto de Aranjuez*, since Bob Dylan's early days when he fancied himself a one-man band, a *Gershwin Medley* that starts off with *It Ain't Necessarily So* and ends with a Prelude No. 2 that belongs in a heart-shaped candy box, and a *Fly Me to the Moon* and *Holiday for Strings* that are too tacky-banal even for an elevator tape.

Things change, however, and all for the better, on "Chamber Jazz." Here, backed up by the fine work of Bob Magnusson on bass and Jeff Hamilton on drums, Almeida is recognizable as the superior craftsman that he undoubtedly is. While there isn't a great deal that can be said about the inspiration behind his arrangements of such things as the *Claire (sic) de Lune Samba*, *Chopin à la Breve*, or *Unaccustomed Bach* (Villa-Lobos he's not), at least there are some prolonged passages of expert playing. But with the price of records nowadays, save your money against the day when you just might find one of those old, old Stan Kenton recordings on which Almeida's guitar figured so brilliantly. P.R.

TERESA BREWER AND EARL HINES: *We Love You Fats*. Teresa Brewer (vocals); Earl "Fatha" Hines (piano); Milt Hinton (bass); Grady Tate (drums). *Ain't Misbehavin'; The Joint Is Jumpin'; Honeysuckle Rose; Squeeze Me; Black and Blue; and six others.* DOCTOR JAZZ DJRX 60008 \$7.98 (from Signature Gramophone Co., Ltd., 1414 Avenue of the Americas, New York, N.Y. 10019).

Performance: **Hines fine, Brewer bad**
Recording: **Good**

The unhappy fact is that Teresa Brewer just isn't up to either the repertoire or the musicianly company she's keeping here. If there was one thing that she always had going for her, it was a trumpeting barrelhouse voice, but here for some odd reason she's chosen to subdue it. The laid-back atmosphere even creeps over the keyboard of Earl Hines, who sounds as if he's holding back out of deference to the star. Miss Brewer's husband, Bob Thiele, produced the record, and he may be responsible for the kid-glove approach. It is the only album I've heard that makes Fats Waller's work sound like it belongs in the Palm Court more than it does in a rowdy, let-it-all-hang-out bar, and such genteel treatment does the master no service at all. P.R.

ROSEMARY CLOONEY: *Here's to My Lady*. Rosemary Clooney (vocals); Scott Hamilton (tenor saxophone); Warren Vaché (cornet); Cal Collins (guitar); Nat Pierce (piano); Monty Budwig (bass); Jake Hanna (drums). *I Cover the Waterfront; Them There Eyes; Don't Explain; He's Funny That Way; and six others.* CONCORD JAZZ CJ-81 \$7.98.

Performance: **A mistake**
Recording: **Good**

Rosemary Clooney doing an album of songs associated with Billie Holiday? Well, it was

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someone's not-so-bright idea, and the result does justice neither to Clooney, still one of America's best pop singers, nor to that great and unique jazz stylist Billie Holiday. No matter what dark personal experiences Clooney has been through (and she's talked publicly about them), she can't seem to reflect or project a tragic view in her performances. She zips through *I Cover the Waterfront*, for instance, as if she were late for a sailing of the QE II, her *Them There Eyes* has the coaxing, jolly quality of a chuck under the chin, and her *Mean to Me* sounds like the sly pout of a flirtatious barmaid. It's as if Ethel Merman decided to do an album honoring Edith Piaf. No way, right? P.R.

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BILL EVANS: *Crosscurrents*. Bill Evans (piano); Lee Konitz (alto saxophone); Warne Marsh (tenor saxophone); Eddie Gomez (bass); Eliot Zigmund (drums). *Eiderdown; Speak Low; Night and Day*; and three others. FANTASY F-9568 \$7.98, © 8160-9568H \$7.98, © 5160-9568H \$7.98.

Performance: **Fine**
Recording: **Very good**

New Bill Evans albums seem to be coming out with sensible regularity, and it's good to see that producer/manager Helen Keane has the wisdom to present Evans in a variety of contexts. Evans' influence stretches far beyond his instrument and the jazz idiom; what he plays is inevitably pretty and full of subtle sophistication, music that is at once ac-

cessible and complex. That is why a Bill Evans performance has the durability of one by Cecil Taylor and the appeal of one by Oscar Peterson. His latest album, "Crosscurrents," features the trio augmented by saxophonists Lee Konitz and Warne Marsh, who first teamed up thirty years ago. Combining the five has resulted in an album worthy of all concerned. Konitz and Marsh are given ample opportunity to shine on their own, but their collaboration on *Night and Day* is particularly effective, an evocation of their common experience with the late Lennie Tristano. Evans himself is brilliant and Eddie Gomez is characteristically sensitive and skillful, but drummer Eliot Zigmund could be improved upon. C.A.

STAN GETZ: *Another World*. Stan Getz (tenor saxophone); Andy Laverne (keyboards); Mike Richmond (bass); Billy Hart (drums); Effraim Toro (percussion). *Pretty City; Sabra; Blue Serge; Willow Weep for Me; Anna*; and five others. COLUMBIA JG 35513 two discs \$9.98, © JGA 35513 \$9.98, © JGT 35513 \$9.98.

Performance: **Partial crossing**
Recording: **Very good**

As a rule, I don't like accordion music, but there are circumstances that can change my mind about it. I cannot, for example, imagine any other instrument setting dancers in motion on Christiansø, a tiny island in the Baltic Sea where, among fishermen and visiting Bohemians, I spent much of my youth; any other musical sound would simply have

seemed out of place skipping across the moonlit waters. I feel much the same way about electronic keyboards; their tinkle seems perfectly appropriate to me in a pop setting, but the emasculated sound of the electric piano can—and usually does—dilute an otherwise potent jazz performance. Because I feel this way so strongly, there are parts of "Another World," Stan Getz's new album, that leave me as cold as a Herbie Hancock vocal does—and that is cold indeed.

I don't dismiss the electric piano altogether, nor am I crying "foul" because I detect a nod in the direction of younger, larger audiences. After all, I didn't mind it when Getz crossed into America's chartland to the gentle rhythms of the bossa nova. I rather enjoyed the strings that accompanied him on some of his less jazz-oriented Verve outings, and I even found exciting his electrically charged "Captain Marvel" romp with Chick Corea (Columbia KC 32706) of a few years ago. So the problem I have with "Another World" actually goes beyond the use of electric keyboards to the way they are used.

Getz's current pianist, Andy Laverne, plays with little more imagination and feeling than one might expect from a computer. Actually, Laverne—who also plays Arp Omni String Ensemble, Norlin Mini-Moog, and other such instruments here—could probably function quite well as a session musician, and, just as I find the accordion appropriate on a small Baltic Sea island, I would probably accept Laverne's playing on a record aimed at my toes alone. Getz himself plugs into a Moog Echoplex for a digital delay effect that makes

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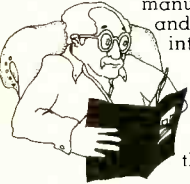
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Another World sound like six minutes of an American International soundtrack, but he leaves the gadget alone on the rest of the album, giving performances that will neither jar nor disappoint the Getz fan. Laverne's pedestrian playing of instruments whose very nature is to conceal pedestrian playing may not bother you, but I find blending Getz into that sort of thing tantamount to enhancing 1979 instant gravy mix with a 1945 Chateau Mouton-Rothschild. C.A.

BILL HENDERSON: Live at the Times. Bill Henderson (vocals); Joyce Collins (piano); Dave Mackay (Fender Rhodes); Tom Azarello (bass); Jimmy Smith (drums). *Everybody's Talking*; *Joey*; *Love Is a Bug*; *Skylark*; *Send In the Clowns*; and four others. DISCOVERY DS-779 \$7.98.

Performance: **Routine**
 Recording: **Good**

Bill Henderson goes all the way back to the Fifties (when he first appeared with Art Blakey). Unfortunately, he sounds like he's stuck there. His audience seems enthusiastic in this live 1975 recording, but precisely why escapes me. The only thing that distinguishes Henderson from any ten other jazz singers is a regrettable tendency to do shtick when he runs out of musical ideas, and at the end of *Everybody's Talking* he does just that: impressions of various people talking about the hero. His *Send In the Clowns* is the kind of travesty that gives jazz singing a bad name, and his *Skylark* juzzets to earth within the first four bars. He's lively and energetic, however, and I suppose that should count for something. P.R.

MARIAN McPARTLAND: From This Moment On. Marian McPartland (piano); Brian Torff (bass); Jake Hanna (drums). *From This Moment On*; *Ambiance*; *No Greater Love*; and six others. CONCORD JAZZ CJ-86 \$7.98.

Performance: **Admirable**
 Recording: **Very good**

Marian McPartland has been an admired fixture on the jazz scene for so long now that there's a tendency to brush past her with an approving nod and a pat on the head. She really deserves more attention than that, and for an in-depth discussion of her achievements here and elsewhere, I recommend Leonard Feather's liner notes for this album. What keeps me a bit distanced from McPartland's recordings (and I have the same trouble with other fine jazz artists) is her total self-involvement with her piano and her musical ideas—often, I feel, at the expense of the song and/or the audience.

A case in point is McPartland's cryogenic treatment here of Cole Porter's *From This Moment On*. It is an elegant, musicianly, and meticulous performance. It is also almost cranky in its wanderings, and by the end it has effectively shut out both the composer and that poor sod the listener. We're definitely not included in the musical conversation between McPartland, bass player Brian Torff, and drummer Jake Hanna. I admired the hell out of what was going on, but I still, somehow, felt like a beer salesman in a double-knit suit who had just told a dirty joke to Audrey Hepburn: not just Out Of It, but *Grossly Out Of It*. Maybe that's because I really did want to hear, even if only briefly, a phrase or two of a song I've always liked. P.R.

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