

IN BOTH EARS

The Audio Stocking

There's a rumor that the old man with the white beard and red suit, traveling under the alias of Kris Kringle, aka Santa Claus, has had his airborne sleigh hi-fi-equipped. About time. That "Ho! Ho!" does get to be boring. But if you think his grab bag contains hi-fi units that require the transfer of several century notes, think again. There are many accessories for sustaining a system that fall into the less-than-\$35 region.

You can get any of a number of phono cartridges from Audio-Technica in the \$35 and under class. Their ATP-2 at \$30 has a dual moving magnet and uses an elliptical 0.4x0.7 mil elliptical stylus. Tracking force is 3 to 5 grams and frequency response is 15 Hz to 22kHz.

You can get well-known brand-name Koss headphones, a slimline model selling for \$30. Frequency range is 10Hz to 16kHz and sensitivity is 100dB sound pressure level (SPL). Total harmonic distortion is 1% at 100dB measured at 1kHz. The phones weigh only 13 ounces, so your ears won't need to join Weight Watchers.

In the microphone department, Superscope will let you have their model EC-5 microphone if you're willing to part with \$30. The EC-5 is a cardioid type, meaning it is more responsive to sounds in front than those coming from the rear. Great for recording if you want to keep pickup of background noise to a minimum. The EC-5 is an electret condenser type and features a desk stand and windscreen. Frequency response is 40Hz to 15kHz, but very few mikes do much better than that. AKG does have one, their Model C-24, that covers from 30Hz to 20kHz, but how does \$1,800 grab you?

In the record care division you have a tremendous choice and you will even have enough change left over to treat yourself to some new ties. If you want to pamper your records a bit, Fidelitone has a record conditioner that includes a plush pile record cleaner with fluid in a bottle stored in the handle. Supplied with a wood storage tray, it will separate you from \$21.

Nagaoka's rolling cleaner, Model RC100, retailing for about \$20, will be available for the first time, they hope, before Christmas. The unit is designed to pick up dust and dirt from the bottom of record grooves. It uses a special grade rubber that is tacky and keeps its tackiness, forcing dirt to adhere to the roller. It can be cleaned for repetitive use with soap and water or detergent.

To some, liquid-cleaning records is too comparable to washing dishes. Hi-fi records do require housekeeping, so Vac-O-Rec has obliged with a disc vacuum cleaner. Just put the record in vertically, turn on the switch and the unit rotates the record, cleaning both sides at the same time. The cleaner has natural mohair fibers to loosen dirt while an

impeller fan vacuums the loosened material. The model 145 carries a tag of \$32.

If you want to improve your auto sound you might consider replacing one or more of your speakers. One of the problems of auto speakers is they work in a hostile environment. A hot day in your car with all its windows closed, standing in the sun, can push the mercury toward the top. Speaker cones, made of paper, lose their natural moisture. The cones, now brittle, do not reproduce well, and with high sound levels can fall apart. One solution is to wipe them with a damp cloth at regular intervals. But who knows or remembers from regular intervals? AFS/Kriket has a model 2032 speaker for which they request \$25 each. It is a two-way unit with a response of 55Hz to 18kHz. Minimum driving power is 2 watts; maximum, 25. While two speakers will push your \$35 budget out and up, even replacing a single speaker is sonically helpful.

You could also consider buying cassette, cartridge or open reel tape, either blank for recording or prerecorded for immediate use. Prices here vary all over the lot, depending on the brand name, type of tape, length of playing and recording time.

Patch cords, while not overly exciting or romantic, are essential for interconnecting hi-fi components. Most cords that come with components have a length of 3 feet, a few as much as 5. This assumes all components are right friendly and live in close approach. But if you have a record player or cassette deck sitting at opposite ends of a room, you're going to need a patch cord some 15 or more feet long. They are available, but you need a pair, one for each stereo channel, and you would be surprised at the big dent such a prosaic product will make in your \$35 budget.

An offbeat item you might consider is the DISK-SE22 mass-concentrated turntable mat. Designed as a replacement for conventional turntable mats, this item is made from a special blend of natural rubber and high density filler. This item requires \$20.

The prices quoted here are manufacturers' suggested retail. How well you do depends on your own cannyness and shopping patience. But whatever you decide to get (or be given), have a happy.

Martin Clifford

Little Big Sound

For those among you who may have more than \$35 to spend on Christmas presents, for themselves or for particularly valued friends (those in the \$500 range, to be specific), Len Feldman has some hints regarding a way to purchase stereo equipment that will make just a medium-sized bite in your bank account.

There's a definite pecking order in the world of audio. The owner of a separate amplifier and tuner looks down upon the owner of an all-in-one receiver, even though both approaches to hi-fi are definitely component oriented. Yet, even though the lowly "compact system" is at the bottom of the list of music-making machines, these units continue to sell and there are perhaps more compacts around than there are component stereo systems.

Surprisingly, many compacts sold today do provide reasonably good sound reproduction. That wasn't always true. Indirectly, a bureau of the Federal Government has had a profound effect on the makers of audio compact systems. I can well remember when many makers of really inferior compact systems would exaggerate the audio power out-

put capabilities of their products beyond belief. There were compact receivers which boasted of power levels of 100 watts but which, measured conservatively, could deliver no more than five or ten watts per channel. There were even some compact systems that claimed to deliver more power to their speakers than was actually being supplied to them from the wall outlet—a rather neat trick that defied the laws of conservation of energy.

All of that changed when the Federal Trade Commission issued its rules concerning power output disclosure for home entertainment audio products. All at once, all manufacturers were required to report in the same, conservative way, specifying continuous output per channel, the frequency range over which full power can be delivered, the speaker load impedance (8 ohms or 4 ohms) and even the maximum harmonic distortion at rated power and below. Not surprisingly, makers of the inferior compacts deleted all references to power in their advertising—a dead giveaway to the knowledgeable consumer that they had been playing the numbers game with inflated wattage figures before the rule went into effect.

WHAT'S DIFFERENT ABOUT COMPACTS?

There are similarities and differences between "separate" hi-fi component systems and compacts. Both approaches use separate speakers, of course. But the compact, as a rule, features an integrated receiver, mounted in a cabinet which also may contain a record player on top and a tape deck (either 8-track cartridge or cassette) which, though physically separate from the receiver, is joined to it through the use of a common dress front panel. There is nothing really wrong with mounting these three components in a single enclosure so long as the circuitry of each of these elements is honestly designed and capable of high fidelity performance.

SPEAKING OF THE SPEAKERS

The single greatest deficiency of those early compact systems sold years ago was the poor quality of the loudspeakers. Enclosures were flimsy, with front panels and backs (if provided at all) made of thin fiberboard which produced resonances that had nothing in common with the sound the system was supposed to be delivering. Speaker elements themselves were often chosen on the basis of size, price and availability rather than because of their performance specifications and compatibility with the enclosure in which they were mounted.

Yet, the very idea of a compact system, in which one manufacturer has control of all the components, can prove to be of great advantage in the final overall design. If a manufacturer has to settle for a low power receiver (to meet a target retail price), he can also choose high-efficiency speakers to compensate for the low power of his electronics. If the response of the speaker system is less than ideal, he can design the amplifier section of the receiver to compensate, at least to some degree, for early roll-off of extreme highs and low bass. Such tonal tailoring need not be regarded with scorn by the prospective purchaser, since the end goal, after all, is good response of the entire system, from program source to listener's ears. The situation is not that different from that of the super-audiophile who installs an expensive graphic equalizer in his or her "separates" system—a corrective measure that doesn't seem to offend even the purist audio buff!

Since it's just as easy to make a good ported or vented speaker enclosure these days as it is to design a low-efficiency "air suspension" or "acoustic suspension" design, the compact buyer need not be that con-

cerned with the power output rating of the included receiver. What becomes important is that the sound pressure levels which the total system can deliver be adequate. If highly efficient speakers are used, five to ten watts of audio power can be enough to produce more-than-adequate sound levels in just about any size listening room.

FIRING CARTRIDGES

What does turn me off a bit in many compact systems is the incorporation of an 8-track tape deck instead of one that uses standard cassettes. The 8-track cartridge format simply does not lend itself to true high fidelity sound recording or reproduction. Friction inherent in the single-reel, continuous loop tape arrangement of 8-track tapes results in higher than acceptable wow-and-flutter levels; it is impossible to rewind the tape; and even the fast-forward option provided on some units is not very fast at all, making it difficult to cue up to a desired musical selection in a long recorded tape. Admittedly, the available library of pre-recorded 8-tracks is vast (owing to the popularity of this format in car stereo systems), but if you listen to some of these tapes at home you will be shocked at the level of background noise and tape "hiss" which they produce (this noise is usually masked by road and wind noises when the tapes are played in a moving vehicle).

Some of the cassette decks incorporated in compact systems, on the other hand, are very nearly equal in their transport smoothness and record/playback performance to many of the lower priced separate stereo cassette decks sold for use in component high fidelity systems. Since most manufacturers of better compact systems offer models using either format, it's a simple enough matter to choose the one that offers cassette facilities.

We must emphasize the fact that there are still a great number of inferior-sounding compact systems available to the consumer. I am always suspicious when reviewing the descriptive literature of compact systems if the only performance specifications I find concerning the tuner section are the lists of frequencies covered by the FM and AM tuner section of the system or when the specs relating to the amplifier portion fail to mention power output capability altogether. I am equally hesitant about recommending a compact in which the speaker description is limited to a statement regarding speaker enclosure dimensions, with no mention made of the drivers (speaker elements), crossover network, or even speaker element diameters.

WHO IS BETTER OFF BUYING A COMPACT?

Even if all the circuitry in a compact were identical to that found in a group of separate components, the mere fact that separate cabinets are not needed for the turntable or tape deck section, plus the lower cost of system packaging suggests that the compact should offer greater value, dollar-for-dollar. That means that the better compact system available today may be an ideal entry-level hi-fi system for several categories of consumers. Among them would be the student entering college who, for the first time, will be living in a small dorm room; the adult owner of a vacation home which is occupied for only a short period each year and doesn't warrant the installation of a more elaborate component system; and many more categories of music lovers who may already own a hi-fi component system but who would now like to add a low-cost second system in another location.

Len Feldman

In the next issue of Ampersand, Len Feldman will fearlessly list several worthy compact units, not all of which are built and sold by our advertisers. And don't be so sure that those manufacturers will receive an automatic (or even single-play) endorsement!