Stereo equipment has become a big investment for college students. Not only is it costly, bt it is constantly being improved, making it difficult to stay on top of the market.

Battalion photo by Paul Childress

High fidelity stereo can be costly

By TODD WOODARD

Battalion Reporter

Larry walked into a highly advertised stereo dealer thinking he was moving up in the world.

He had, he thought, a comfortably large checking account, and he wanted to spend his wealth on a new stereo. He had read through material describing features such as wattage, and frequency response and speaker performance. He was confident of his knowledge and his desires.

The smell struck him funny. Could chrome smell like money? Flashing lights on the equipment, thick carpeting and classical music overcame his senses. The longer he stayed the more he wanted a cassette with light-emitting diodes (LED), a flashing carnival of numbers and readings.

The dream held as the salesman talked about the benefits of this meter and that switch and those specifications. The dream held until the price of the equipment jarred him awake.

High fidelity stereo, for investment or enjoyment, is not for the weak-hearted pocketbook.

And prices won't drop. With innovations like digital and direct-to-disk recording, LED readout, quartz-timed turntables, metal particle tape and computerized speaker design, few can choose the right equipment for the right price without "getting nailed," as Gene Joyce of Audio Video in Bryan said.

Stereo is personal listening preference; many specifications are meaningless to the ear. In an already complicated market, with buyers baffled by terms like dynamic response, frequency response, RMS, sensitivity ratio and THD, new selling points confuse buyers more.

Constant improvements are one reason high fidelity equipment is so expensive.

The biggest improvements have been in speakers. Major labs like Yamaha, Pioneer, Marantz and Sansui use computer evaluation in designing new speakers or improving old ones.

Joyce said that the companies' computers analyze all kinds of components and insulation, and whether pressboard cases, solid wood, or other materials produce the sound wanted.

Overall, stereo equipment will continue to improve, just as it has in the last few years.

Tim Northcutt, of Custom Sounds, said that even air friction in the speaker box has been studied to make speakers better.

New speakers can reproduce sounds more accurately.

"What is on the record is what you hear. It's too bad if you don't like what's on the record," said Joyce.

But even with better speakers, value is still a problem. Both Joyce and Northcutt advise buyers to listen and get what sounds good.

"You have a salesman who wants to sell you the greatest thing since sex," said Northcutt, "and he's really pushing a speaker on you. Listen to it for more than 10 minutes, take it home, play it loud and soft.

"When you're in the store you tend to buy the most efficient speaker, the loudest. It may sound good now, but it may be bad later," he said.

Program sources have improved too. Both Joyce and Northcutt mentioned improved tapes called metal particle tapes.

Conventional tapes are iron oxide or chromium dioxide particles on a plastic tape. During recording, the particles are magnetically arranged into vertical strips. The playing head in cassette units reads the magnetism and interprets it, producing electricity that goes to the speakers.

But these tapes get magnetically saturated easily. The tapes can't retain some high levels of dynamics, or volume, because the magnetism fades.

Metal particle tapes have a higher density of the metal particles, not oxides or dioxides, to magnetize. They are more accurate dynamically, and frequency response, number of cycles per second, is extended.

"Metal particle tapes are much heavier, they allow you to put more information on the tape," said Joyce.

Northcutt said one area that has had little improvement is the equipment which drives the speakers and interprets the tape.

Many of the new features in this area of equipment are not innovations but cosmetics; selling aids like flashing meters.

Though some improvements have been made, they are not always readily noticeable by the consumer.

One improvement ,quartz speed control in turntables, has reduced distortion due to speed changes. But when less than .04 percent of the sound changes from the record to the ear, listeners can't tell.

"Distortion levels are so low now it just doesn't make much difference," said Northcutt.

Northcutt said that strobe speed meters on turntables are a poor value. Strobe meters are used to fine tune turntable speed.

"Don't get me wrong, the strobes can check your table speed exactly.

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But the new sets are so damn accurate, and they don't change, that you'll probably never use it. Some people like the way it looks."

Looks, or features as Joyce calls them, attract many people. He explained his point by comparing two- and three-way speakers.

He said he's seen buyers whose friends told them all they know about speakers or turntables or receivers. They shop for speakers, trying to decide whether to get a two-way speaker, which has a bass woofer speaker and treble tweeter speaker, or a three-way, which has a woofer, midrange and tweeter.

The frequency range and price are equivalent. Invariably, he said, the buyer chooses the three-way speaker thinking three speakers are better than two. But he explained that when three speakers are used, they must be less expensive and probably lower quality.

"They put cheap speakers in cheap boxes and make them look good.

"And most people like the sound of the two-way better. They won't trust their ears," he said.

But two advances have been able to caress both ears and egos: direct-to-disk recording and digital recording.

Direct-to-disk is not new, but it is being used more and more often.

Most recordings are put on a master tape, and the records cut into vinyl from the tape.

The tape leaves noise on the record, which eventually comes out during listening. Engineers minimize the noise by mixing and filtering.

With direct-disk recording, the performance goes directly on a master record. No residual noise, excellent dynamics, and no turning back. Once the needle starts cutting, the musician plays until the grooving finishes. Both mistakes and genius go on the disk.

Errors can occur only due to mechanical limitations of the cutting machine.

Digital recording promises more. In this mode every musical pitch has a binary number code.

For example, when the London Philharmonic plays a symphony, every note has a number. Those numbers go into the computer, which stores the code. When the record is cut, the code is changed into arm movements on the cutting disk.