

# New Equipment Reports

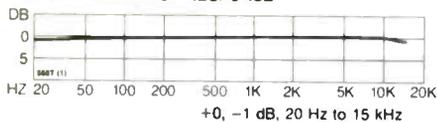
Preparation supervised by Michael Riggs, Robert Long, and Edward J. Foster.  
Laboratory data (unless otherwise noted) supplied by Diversified Science Laboratories.



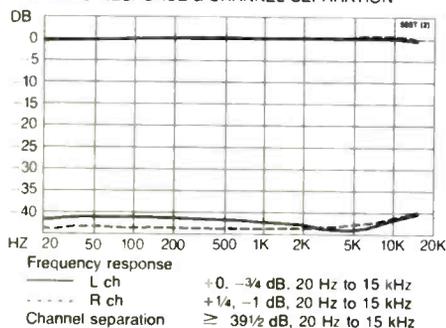
## Great Scott! A Tiger of a Tuner!

Scott Model 558T AM/FM tuner. Dimensions: 17 by 13 $\frac{1}{4}$  inches (front panel), 10 $\frac{3}{4}$  inches deep plus clearance for antenna connections. Price \$280. Warranty: "limited," three years parts and labor. Manufacturer: made in Korea for H. H. Scott, Inc., 20 Commerce Way, Woburn, Mass. 01801.

### MONO FREQUENCY RESPONSE



### STEREO RESPONSE & CHANNEL SEPARATION



IT HAS BEEN SOME YEARS since we tested a Scott tuner. Audiophiles with long memories are still sighing over the LT-112B, a superb tuner when we tested it in '66 and one of Scott's last great kit models. Well, friends, you can put away your 112Bs; for all its sterling qualities, it has been altogether eclipsed. Behind the slim faceplate and modest pricetag of the Model 558T lurks a tiger of a tuner.

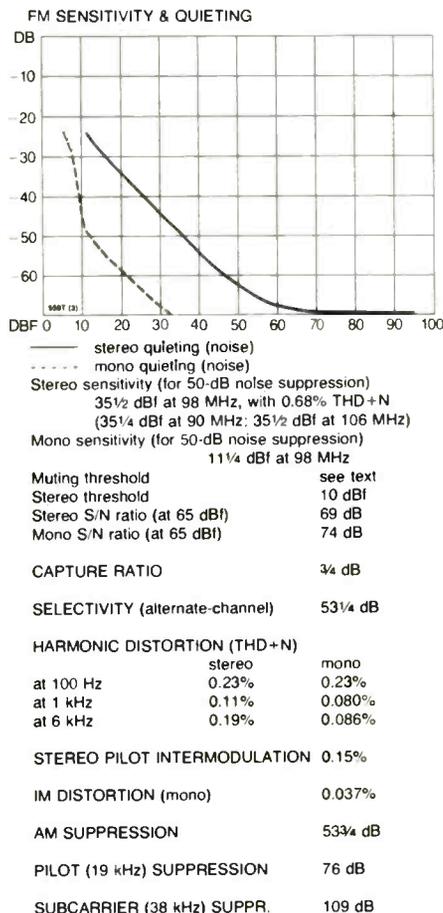
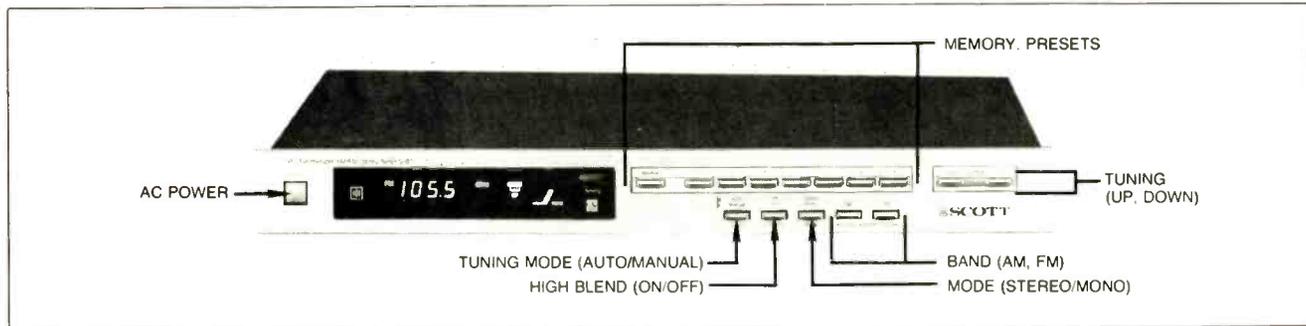
Not that it's gussied up with the sort of pyrotechnical features of some of today's fancy models; on the contrary, this is a relatively simple digital tuner with memory that just happens to perform better than most of the competition. Its design centers around a four-gang PLL frequency-synthesis front end with a pulse-filtration circuit to control the noise that is a by-product of digital switching.

The AM and FM bands have seven station memories each. The AM section strikes us as distinctly above average. Scott's products are distributed widely in Europe, where AM services are quite important, so it follows that a good deal of attention has been paid to this tuner's AM circuitry. In fact, if you look closely at the fluorescent display panel, you'll see faint designations for MW and LW—medium wave and long wave, respectively. (The European version of the 558T, in fact, offers all three bands—MW is what we call AM, while LW lies at lower frequencies yet—with somewhat different front-panel switching.) Also present, but unused in the U.S. version, are an extra digit in the number display and marks on either side of the

TUNED indicator, evidently to indicate which direction to tune in the narrower frequency steps of the European version. Our model steps along smartly in full-channel increments: 200 kHz for FM and 10 kHz for AM.

The tuning system is fairly conventional. In the manual mode, UP and DOWN bars (actually, opposite ends of a single rocker element) step the tuner each time you apply gentle pressure, allowing you to audition each channel as you go. Pressing harder tunes the 558T rapidly, with no audible output. The automatic mode keeps stepping until a receivable channel is reached. The muting operates while the tuner is "in transit," but not when it is set to a frequency where there is no receivable station. To avoid the roar of uninhabited channels, use the automatic mode, which stops only at occupied frequencies. To store a particular station, press MEMORY and a corresponding area of the fluorescent panel lights for a few seconds, during which the station can be entered.

To help you orient a rotatable antenna for the best signal, there is a multi-element signal-strength indicator, shaped something like a hysteresis curve, on the fluorescent panel. Though it has six segments, the top two come on together in our model, yielding five functioning levels of differentiation—more than most of today's tuners afford. Furthermore, the LEDs' signal thresholds are well distributed: the first illuminates at 16 dBf, and the remaining ones occur at fairly even intervals of about 10 dBf, up to 54 dBf for the top two elements.



They thus cover the range from marginal mono reception (about 55 dB of quieting) to maximum mono quieting (74 dB) and nearly full stereo quieting. (In this area, the meter on the old LT-112B—which measured multipath as well as signal strength—did outpoint those on the large majority of today's tuners, including the 558T, because of its response to much smaller increments.)

An unusual feature of the back panel is a captive, permanently attached one-meter output cable to feed your amplifier. It seems a sensible length, though some users may grumble that it's a little too long or too short to be ideal for their particular systems. The usual AM bar antenna is included, along with binding posts for a long-wire AM antenna and an FM-antenna downlead. For 75-ohm coax, there is a binding post for the hot lead and a collar for the grounding shield—a common arrangement in current equipment. (One of these days, some enterprising company is going to realize that the

popularity of coax is on the increase for both FM and TV use, that video recorders have made the so-called F connectors the standard for such use, and that it would be a logical convenience to standardize on those connectors for quality FM tuners as well. But that day is not here yet.)

Areas in which the 558T's performance particularly shines include sensitivity, frequency response, and channel separation. Actually, Scott could have sacrificed more of its exemplary channel separation to the BLEND, which takes more of a nibble than a bite out of the hiss on weak stereo stations. Also exemplary is the degree to which the pilot and subcarrier frequencies are suppressed. And, at 4 dB, the adjacent-channel selectivity is unusually good (the alternate-channel's is slightly less so). But there is no respect in which this tuner cannot be characterized as good or better. As a whole, it represents a performance level that belies its moderate price.

Circle 98 on Reader-Service Card



In the detail shown here, the 558T's neat visual display tells us at a glance that we're perfectly tuned to a very strong FM stereo broadcast on 90.3 MHz, which also happens to occupy the fourth memory preset position.

## Signet's Hand-Crafted Cartridge

Signet TK-7LCA fixed-coil phono cartridge, with Straight Line Contact multiradial diamond stylus. Price: approx. \$200 (varies somewhat from market to market). Warranty: "full," three years parts and labor. Manufacturer: Audio-Technica, Japan; U.S. distributor: Signet Div., A.T.U.S., Inc., 4701 Hudson Dr., Stow, Ohio 44224.

SIGNET HAS ALWAYS STRESSED the importance of combining craftsmanship with technology, apparently feeling that the latter alone is not enough. This attitude is reflected throughout the current TK series of moving-magnet cartridges, which are individually tweaked and tested for maximum performance. Judging from the TK-7LCA, which is medium-high in the line (there are four models below it and two above it), the results are well worth the extra effort.

The TK-7LCA uses two coils per channel, each wound with a single low-oxygen copper wire without solders or welds for maximum efficiency. The coil cores are of

Signet's laminated UniCore construction, with integral pole pieces for minimum loss at high frequencies, and there are separate magnets for each channel for maximum separation. Compliance and damping are said to be hand-adjusted for each cartridge during assembly. A nude-diamond Straight Line Contact multiradial stylus is mounted into the TK-7LCA's tapered beryllium-rod cantilever by means of a laser-bored square hole. The square shape of the diamond's shank reduces tip mass and helps assure correct orientation in the cantilever.

The tracking-force recommended is a range: from 0.8 to 1.6 grams. Diversified Science Laboratories put the pickup