HI-FI GUIDE

A SIMPLE GUIDE TO HIGH FIDELITY... BOTH

What is High Fidelity Sound?
It is the creation in your own living room of the true beauty and depth of the original performance as played in the concert hall. Actually it is a combination of silence and truth because high fidelity sound reproduction means the absence of extraneous noise and hum and faithful, distortionless, delivery of the sound you want to hear.

What is Component High Fidelity?
With component high fidelity all the essential parts of the music system are purchased as separate units. These separate units include: The record changer, amplifier, loudspeaker, and radio tuner. In conventional radio-phonographs all these parts are manufactured together and installed in one cabinet.

What Are the Different Components?
The Radio Tuner captures the radio waves from the air. There are two kinds of radio waves: AM and FM. AM is the kind you find in most ordinary table radios. FM is a newer form of static-free radio being used to transmit a great deal of good music.

The Record Player is usually in the form of a turntable or a record changer in the high fidelity system. It is a precision piece of equipment, made like a fine watch. Mounted on the turntable or changer is the arm and cartridge. The cartridge holds the phonograph needle and transforms the movement of the needle in the record groove to electrical signals.

The Amplifier is the link between the tuner or turntable and the speakers. The amplifier strengthens the minute signals fed into it by the tuner or record player... turns these signals into electrical impulses strong enough to drive the speakers. It is in the amplifier that you control the sound... make it louder or softer... or change the tonal balance to suit your ears.

The Speaker. It is here that the carefully controlled electrical signal is changed into sound waves you can hear.

Why Should I Buy Components?
Components give you the ultimate in performance. When you buy components you don't spend a lot of money on expensive cabinetry. All of your purchase price goes for the "guts" or insides of the set. Therefore you get more for your money. You also get extra versatility with components. They take little space, and can be installed almost anywhere.
How Much Does High Fidelity Cost?

A component system can be purchased for as little as $200 or you can spend over $1000. The only reason, however, for purchasing high fidelity is quality. Therefore you are defeating your purpose if you buy inexpensive components. You should purchase the very best components you can afford. It is better to wait, rather than to compromise.

What Shall I Buy and Where Shall I Buy It?

There are a few basic facts to remember when you purchase high fidelity components. First: Go to a reliable dealer... one who will stand behind the equipment he sells... one who is experienced enough to aid you in choosing fine equipment. A good guide is to see whether the dealer carries H. H. Scott equipment. H. H. Scott gives their franchise only to qualified dealers.

When you walk into your dealer's shop, start by telling him how much you can afford to spend. Be frank about this figure, then he won't show you a $500 speaker, when all you can spend is $200. Remember, buy the best you can afford.

You must consider this as a long-range investment rather than something you will buy again next year. If your budget is limited we suggest a step by step method of acquiring a system:

1. Buy either a tuner or a turntable. You must have at least one signal source for your system. Many people start with a tuner, then add a phonograph at a later date. This is logical because once you buy a tuner you have no further expenses. You don't have to go right out and buy records. Note: Even if you buy a monophonic phono system, we recommend you purchase a stereo cartridge as a guard against obsolescence. You can play monophonic recordings with a stereo cartridge but you can't play stereo records with a monophonic cartridge.

2. You must have an amplifier in your system. There are two ways to buy:

A. Buy a stereo amplifier. Even if you don't purchase two speaker systems now, you will be all set for stereo whenever you want.

B. Buy a monophonic amplifier now, and a single speaker system. Then when you are ready for stereo you can purchase a matching amplifier and speaker and a Scott Stereo-Daptor.

What is Stereo?

There are now two systems of high fidelity, monophonic (monaural) and stereophonic. Monophonic is a system that starts from one microphone and is fed through a single high fidelity set. Stereophonic is a double system. Two microphones are placed at different sides of the orchestra and two different systems are used to keep the two signals or channels separated. Two separate speakers are used, placed on different sides of your room. Stereo is much like 3-D photography. Two slightly different sounds reach your ears giving you a new dimension in sound. (See next page.) H. H. Scott has designed many special components for stereo. First is a stereo arm and cartridge to give true high fidelity performance from the new stereo records. Next is a stereophonic AM-FM tuner with two completely separate sections to pick up stereo broadcasts transmitted by many AM and FM stations. H. H. Scott has also designed several stereo amplifiers, that are essentially two amplifiers in one, giving you completely separate control over both stereo channels.
HOW STEREO WORKS

1 Two separate microphones are placed at opposite sides of the orchestra. 2 The separate signals from the microphones are recorded on two separate sides of a record groove. 3 The stereo cartridge senses the two signals, separates them and feeds them into a dual stereo amplifier. 4 The amplifier strengthens the weak signal from the cartridge and provides you with controls to tailor the sound to your room and your ears. 5 The two separate signals are fed into two speakers placed at opposite sides of your room. This gives you 3-D sound... two slightly different sound pictures, one for each ear, that create a dimensional effect. 6 As an alternate system the sound can be fed from the two microphones to separate AM and FM stations. 7 These separate signals are then picked up by a dual stereo AM-FM tuner and fed to the stereo amplifier.

There are two principal ways to purchase H. H. Scott stereo. If you already have a monophonic system, or prefer to start with monophonic and expand to stereo later, you can add the H. H. Scott Stereo-Dapter as shown on the right. If you want to go into stereo from the start you can purchase H. H. Scott components designed specifically for stereo.
Expand to stereo by adding the Stereo-Daptor and a new H. H. Scott monophonic amplifier to your present system. The Stereo-Daptor permits control of two separate amplifiers from a central point. A Master Volume Control adjusts the volume levels of both channels simultaneously. Special switching lets you play stereo, reverse stereo, use your stereo pickup on monaural records, or play monaural program material through both amplifiers at the same time. This gives you the full power of both amplifiers. No internal changes are required when used with H. H. Scott amplifiers.
99D

Technical Specifications

Inputs: Two magnetic (low level); three high level.
Front Panel Controls: Input Selector and Record Compensator; Bass; Treble; Speaker Selector; Loudness; Pickup Selector; Rumble; Scratch; Stereo-Monaural; Volume-Loudness.

Tape Recorder Facilities: Tape monitor provision with front panel monitor switch; NARTB tape playback compensation for playback direct from tape heads; high level recorder input; tape recorder output.

Frequency Response: Flat 20 cps to 30 kc.

Hum and Noise: More than 80 db below full power output.

Distortion: Harmonic less than 0.8%; first order difference tone 1M (CCIF method) less than 0.3%.

Speaker Facilities: 4, 8 and 16 ohm outputs; two or more speakers may be connected and selected with front panel switch.

Circuit Features: Direct-current on preamp tube heaters for lowest hum; sub-sonic sharp cutoff filter prevents overload due to eccentric records or rumble.

Dimensions in Accessory Case: 15¼” W x 5” H x 12½” D.

This is a complete control and power center incorporating the results of H. H. Scott's famous engineering leadership and skill. This amplifier is ideal for those who prefer a top-quality monophonic system now, and wish to expand to stereo sound later. Together with the 135 Stereo-Daptor it also makes an excellent add-on system to existing amplifiers. Outstanding features include two low-level preamp inputs that enable you to use both a phono cartridge and tape head; extensive tape recording and monitoring facilities; and front-panel stereo expansion switch.
The 36 watt output stage of this complete amplifier makes it ideal for less-efficient speaker systems or where the absolute optimum in performance is required. The unique Acoustic Level Control insures perfect operation of the amplifier with any speaker and in any room. A convenient front-panel switch facilitates instant expansion of the 209 to a Stereo system, together with the 135 Stereo-Daptor and a second amplifier.

Important operating features include dual magnetic inputs; three-position scratch and rumble filters; and extremely high gain permitting use with any phono cartridge or tape-recorder head.
Here's how the H. H. Scott Dynamic Noise Suppressor Improves Performance of Both Stereo and Monophonic Recordings

Nothing mars music more than the scratch and hiss of record surface noise or the rumbling of an imperfect turntable. Some manufacturers offer filters to remove these sounds by cutting off response just above rumble and just below scratch frequencies. But fixed filters cut off music as well as the noise. H. H. Scott’s exclusive Dynamic Noise Suppressor works differently. On quiet and low level musical passages, when noise is noticeable and annoying, the suppressor cuts off at noise frequencies. When music becomes loud enough to mask noise, the suppressor automatically and instantaneously lets all the music through. If you are playing a noisy record, for example, and have two piano notes with silence between, the suppressor lets both piano notes through perfectly, but filters out the scratch and rumble present in the silence between. This patented feature is exclusive to H. H. Scott amplifiers.
H. H. Scott's Engineering Leadership Recognized with these Important Awards

Selected for display at the Brussels World Fair and the Milan Trienalie; Electrical Manufacturing Award for outstanding instrument design; Two A.I.M. Merit Awards; Audio Engineering Society’s Potts Memorial Medal to Hermon Scott for outstanding contributions to audio science; Medal of Merit at the International Sight and Sound Exposition; First Choice ratings in the “Saturday Review Home Book of Recorded Music and Sound Reproduction.”

Important Firsts
by H. H. Scott

First high fidelity AM-FM Stereo tuner using wide range AM design.
First to successfully use wide-band circuitry in high-fidelity FM tuners. First to market The Stereo-Daptor, a stereo control unit that prevents obsolescence.
First to provide center channel output on Stereo amplifiers for added realism in playback.

H. H. Scott’s Professional Background Assures You Years of Trouble-Free Service

H. H. Scott is one of America’s leading manufacturers of professional acoustic measuring and analyzing instruments. Their compact sound level meters and sound analyzers, as well as other precision laboratory equipment, are used throughout the world in universities, government laboratories and industrial plants.

50 Tests Assure Fine Quality

Here Hermon Hosmer Scott and Chief Engineer D. Von Recklinghausen personally check results of the stringent quality tests given each piece of H. H. Scott equipment before it leaves the factory. This care and dedication to unexcelled quality guarantees you the finest in performance.
299

important features

1. 40 watt power stage consisting of dual 20 watt power amplifiers. You need this much power to meet the requirements of today's speaker systems.
2. Completely separate Bass and Treble controls on each channel so that different speakers may be matched.
3. Provision for connecting both a stereo phono cartridge and stereo tape heads.
4. Phase reverse switch to compensate for improperly phased tape recordings or loudspeakers.
5. Special balancing circuit for quick and accurate volume balancing of both channels.
7. Unique visual signal light control panel. Instantly indicates mode of operation.
8. Can be used as an electronic crossover (bi-amplifier).
9. Special compensation for direct connection of tape playback heads without external preamp.
10. Special switching lets you use your stereo pickup on monaural records.
11. You can play a monaural source such as an FM tuner through both channels simultaneously, effectively doubling power.
12. Loudness compensation.
13. Stereo tape recorder output.
14. D.C. filament supply for preamp to virtually eliminate hum (80 db below full power output).
15. Distortion (first order difference tone) less than 0.3%.
16. Center channel output.

299

This is a complete stereo control and power center of unusual versatility. The dual 20 watt power stages provide ample reserve for any speaker requirements. Outstanding features include separate tone controls on each channel for accurate speaker balancing.

40 Watt Stereo Amplifier

technical specifications

Output: Stereo tape recorder; 4, 8, and 16 ohm speaker outputs for each channel; switched accessory A-C outlet.
Maximum Sensitivity: 3 millivolts for rated output; will accommodate all low output pickups.
Frequency Response: 20 cps to 30,000 cps with tone controls set flat. Harmonic Distortion: 0.8% at full power output. Noise and Hum: Hum better than 80 db below full power output; noise equivalent to 10 microvolts on low level input. Dimensions: In accessory case 153/4" w x 5" h x 123/4" d.
330C

technical specifications

FM Section: Wide-band circuitry is used, with a detector bandwidth of 2 megacycles. This results in complete freedom from drift, low cross-modulation and high selectivity; heavily silver-plated RF circuitry assures optimum sensitivity with low distortion; automatic gain control makes manual adjustment of sensitivity unnecessary.

Sensitivity: 2 microvolts for 20 db of quieting on 300 ohm antenna terminals.

AM Section: Circuitry utilizes new wide-range detector for receiving the full frequency response of stereophonic broadcasts; adjustable AM bandwidth for reception under all conditions including: Wide-range, Normal and Distance; 10 kc whistle filter; 1 microvolt sensitivity for usable audio output; sensitive loop-stick antenna; provision for external antenna.

Additional Specifications: Separate edge-lit vernier dials on each channel for quick and precision tuning; professional illuminated signal strength and tuning meter; stereo tape recorder outputs.

FM dipole antenna and connecting cables supplied; front panel monaural-stereo selector switch.

Dimensions in Accessory Case: 15½" w x 5" h x 12½" d.

multiplex stereo

All H. H. Scott AM-FM and FM only tuners have multiplex output for instant conversion to multiplex stereo.

AM-FM Tuner

The extremely wide-range AM section of the 330, plus a highly sensitive, drift-free, wide-band FM section make this the outstanding tuner for reception of AM-FM Stereophonic broadcasts. H. H. Scott’s long experience in the design of stereo tuners assures uncompromising performance in AM and FM reception. Technical authorities have acclaimed this tuner as the finest available. For example, Audio Craft Magazine reports: “... a very high quality FM tuner combined with an AM tuner which is easily the best we have heard.” High Fidelity Magazine states “The cleanest and most transparent FM signals I have heard in a long time.”
130

**130 important features**

1. Visual signal light display panel shows mode of operation at a glance.
2. Completely separate bass and treble controls on each channel so that different speakers may be matched.
3. Play stereo from any source — Records, FM-AM Tuner, Tape.
4. Reverse channels instantly, or play monaural from any source through both channels doubling your power.
5. Play Trer - a center channel output lets you use your present speaker as a middle channel.
6. Special circuitry lets you balance channels quickly and accurately.
7. Reverse the phase of one of your channels 180 degrees instantly. Lets you correct for improperly recorded tapes.
8. Separate 12 db/octave rumble and scratch filters.
9. Complete record equalizer facilities.
10. Use as an electronic crossover at any time.
11. Two stereo low-level inputs. You can connect both a stereo phono pickup and stereo tape head.
12. Stereo tape recorder inputs and outputs.
13. Provision for operating stereo tape heads without external preamps.
14. Quick-set dot controls allow any member of your family to use equipment.
15. Loudness-volume switch.

This preamplifier has already won the reputation of being the best stereo control center available. HI FI & MUSIC REVIEW magazine reports that the 130 “... has so much flexibility that it defies adequate editorial treatment.” This unit has separate Bass and Treble controls on each channel for accurate speaker balancing.

**Stereo Preamplifier technical specifications**

- Rear Apron Controls: Separate level controls on all inputs and on tape monitor input. Sensitivity: 1.5 millivolts for rated output on NARTB tape input; 3 millivolts on magnetic phono inputs. Harmonic Distortion: less than 0.15% at rated output. Frequency Response: 19 cps to 35,000 cps ± 1 db with tone controls set flat.
- Hum and Noise: Equivalent to 3 microvolts on magnetic inputs. 80 db below maximum output on high level inputs.
- Dimensions in Accessory Case: 15½” w x 9” h x 12½” d.
The unique “Power-Balance” output circuitry of this amplifier results in performance equal to amplifiers of much higher power rating. Output transformer is of exclusive H. H. Scott design. Rugged 6CA7 output tubes are used, operating far below maximum ratings. Two 250’s are ideal for use with the 130 Stereo preamp, combining to give stereo playback systems of unexcelled quality.
310B technical specifications

Sensitivity: 1.5 microvolts on 300 ohm antenna terminals for 20 db of quieting, .75 microvolts for 20 db of quieting using matched 72 ohm antenna.

Circuit Features: The 310B utilizes wide-band circuit design, consisting of 150 kc IF passband and limiters, and detector having a 2 megacycle bandwidth. Three effective stages of full limiting and three IF stages. All RF and IF circuitry is silver plated, insuring maximum gain with low distortion. The tuner is absolutely drift-free.

Cross Modulation Rejection: 85 db rejection of undesired response from strong local signals.

Capture Ratio: 2.5 db capture ratio.

Automatic Gain Control: Prevents distortion on strong local signals; makes manual control of sensitivity unnecessary.

Tuning Indicator: Illuminated calibrated meter functions as signal strength meter and tuning indicator.

Audio Circuit: Two feedback stages of low-distortion audio amplification with low impedance output; Recorder outputs.

Multiplex: Multiplex output for multiplex-type stereo.

Controls: Vernier and Fast Tuning; Interstation Noise Suppressor; Level Control.

Dimensions in Accessory Case: 13½" w x 5" h x 9½" d.

The Apparatus Development Company, manufacturers of the FM/Q antenna, reports: "The Scott consistently receives signals from a distance of 510 miles. This is the best record for any FM tuner in our files."

310B

Broadcast Monitor Tuner

Designed for the perfectionist and true connoisseur, the 310B is the most sensitive tuner it is possible to make at this stage of the art. It finds application in professional broadcast relay work, and in home listening where the absolute optimum in performance is required. Outstanding features include heavily silver-plated RF circuitry, professional illuminated signal strength meter and the Interstation Noise Suppressor. HIGH FIDELITY Magazine says of this fine instrument: The 310 "... is a tuner that seems as close to perfection as is practical at this time."
Here is an outstanding FM tuner, incorporating all the benefits of H. H. Scott engineering leadership at a moderate price. The 311C features wide-band design, a unique silver-plated RF section, and professional illuminated signal strength meter. AUDIO magazine said of the 311 "Hermon Hosmer Scott has always had a reputation for making fine products, and even though the 311 FM tuner is low priced . . . it turns in a performance and quality report that is enviable."
300 technical specifications

Sensitivity: FM section 3 microvolts for 20 db of quieting on 300 ohm antenna terminals.
Circuit Features: 2-megacycle wide-band FM detector assures high selectivity, ease of tuning and drift free performance. Heavily silver-plated RF circuitry. Tuning and signal strength indicator. AM Section utilizes wide-range detector design for reception of high fidelity AM broadcasts. RF stage for both AM and FM sections.
Controls: Main Tuning; Selector; Level.
Outputs: Main; Tape Recorder; Multiplex.
Tuning: Flywheel tuning for quick station selection. Logging scale.
Dimensions in Accessory Case: 15½" w x 5" h x 12½" d.

Hermon H. Scott Audio Pioneer

Hermon H. Scott received B.S. and M.S. degrees from M.I.T. Inventor of the RC Oscillator, RC tuned circuits and filters, the Dynamic Noise Suppressor and other devices, he has many U. S. and foreign patents. His technical leadership was recognized by election as Fellow in the Institute of Radio Engineers, Acoustical Society of America, and Audio Engineering Society, and by numerous awards, including the Potts Medal. He is the author of many technical papers and articles.

This moderately priced tuner features H. H. Scott wide-band FM design and silver-plated RF circuitry. The AM section uses H. H. Scott's exclusive wide-range circuitry for reception of high-quality AM broadcasts. The beautiful styling complements any decor and perfectly matches any H. H. Scott amplifier or preamplifier. Outstanding features include unique tuning and signal strength indicator, multiplex output, and tape-recording facilities.
710A

Stroboscopic Turntable

The extremely low rumble of this turntable makes it ideal for use with stereophonic records. A unique drive system, utilizing Acoustic Filtering and nylon drive gears, keeps extraneous motor and room vibrations out of the playback system. Separate vernier speed adjustments and an optical stroboscope insure accurate speed setting to better than 0.01%. HIGH FIDELITY MAGAZINE reports: "... I could not hear the slightest rumble from this turntable, working through a wide-range speaker system... A fine piece of engineering design and production accomplishment."

Technical specifications

Description: The 710A is an integrated turntable system with built-in provisions for pickup arm mounting and scientific vibration isolation.
Acoustic Filtering: Torsional and mechanical filtering completely isolate the turntable from all extraneous acoustic, motor and room vibrations.
Rumble: 60 dB below recording level.
Wow and Flutter: Less than 0.1% of rated speed.
Speed Controls: Push button selection of 33 1/3, 45 or 78 rpm speeds.
Dimensions: (including pickup arm mounting board): 16 1/8" x 14 1/2"; depth from top of spindle to bottom of mechanism 7 3/4".
Power: 105-125 volts, 60 cycles AC.
Accessory Base: Hand-rubbed mahogany base available from your dealer.

1000

Matched Stereo Arm and Cartridge

To achieve perfection in a stereo-cartridge H. H. Scott engineers worked closely with London Records, of London, England, originators of fss recordings. The result of this team effort is a stereophonic pickup and arm of unexcelled quality. The Type 1000 has the widest frequency range of any cartridge available. The extremely low moving mass of this unit reduces record wear to an absolute minimum. The integrated design of arm and cartridge minimizes tone arm resonances and assures proper alignment of stylus on record.

Technical specifications

Tip Mass: Less than 1 mg., reduces record wear to an absolute minimum and assures accurate tracking even at high volume levels. This tip mass is at least 50% lower than cartridges of conventional design.
Frequency Response: 20 CPS to 20,000 CPS. This extended response is far beyond the range of ordinary pickups.
High Vertical Compliance: Minimizes record wear and prevents damage even if cartridge is dropped on record.
Tracking Pressure: 3.5 grams for optimum response and minimum wear.
Output: 4 millivolts.
Stylus Tip: Polished diamond, 0.2 millimeter. This small radius assures minimum distortion.
Other Specifications: Height of arm adjustable; frictionless precision roller bearings minimize lateral tracking force; supplied complete with arm rest, cables and hardware.
H. H. Scott . . . a history of leadership in the Acoustic field

To insure that every H. H. Scott component meets the highest standards of quality, H. H. Scott maintains this ultra modern plant for the design and manufacture of all its components.

This new plant, located in Maynard, Massachusetts, includes a machine shop, sheet metal facilities, coil and transformer department, electrical assembly department and fully equipped laboratories for design and research.

The engineering department is staffed by 12 graduate engineers who are primarily concerned with developing new and better components for high fidelity sound.

Every high fidelity component receives over 50 electrical and mechanical tests before it leaves the factory. Special electrically shielded "screen rooms" are used for aligning FM tuners. There are life test facilities where components are run for thousands of hours under strict controls to test their durability.

These extensive investments in facilities back up H. H. Scott's philosophy that there will never be any compromise with quality.

Add-A-Unit Styling

Insures complete integration in both engineering and appearance. No matter which fine H. H. Scott components you choose, they will harmonize perfectly.

How Add-A-Unit Works:

All units have the same panel height, and there are only two panel widths.

- The 95D, 200, 210F, 330, 300, 299, 130 are all the same width.
- The 311C, 112C and 310B are all the same width.

You can choose H. H. Scott components in combination to suit your own particular requirements and budget.

Custom Installation

The beautiful styling and unique construction of H. H. Scott components make them easily adaptable to custom installations. Only one simple cutout is required for panel mounting, and units do not have to be taken apart, nor are escutcheons required.
The Experts Say...

The Dynamic Noise Suppressor

"Without a doubt this is the most effective ... surface noise filtering system we have heard".

High Fidelity Magazine

The 130 Stereo Preamp

"This unit has so much flexibility that it defies adequate editorial treatment".

Hi Fi & Music Review

The 330 Stereo Tuner

"A very high quality FM tuner combined with an AM tuner which is easily the best we have heard".

Audiolab Test Report
Audiocraft Magazine

The 330 Stereo Tuner

"The cleanest and most transparent FM signals I have heard in a long time".

High Fidelity Magazine

The 300 AM-FM Tuner

"Quieting is excellent, tuning very sharp, and frequency stability outstanding".

High Fidelity Magazine

The 310B FM Tuner

"A tuner that seems as close to perfection as is practical at this time".

High Fidelity Magazine

The Type 1000 Arm and Cartridge

"The new (London-Scott) ffs pickup emerged as easily the outstanding stereo pickup to be heard (at the London, England, hi-fi show) ... this really is a first class piece of design ... its performance places it in a class apart from all others, and its price ... is by no means excessive for an instrument of its class".

Saturday Review

Accessory Case Information

There are several handsome accessory case styles available for H. H. Scott components. Most attractive are the beautifully crafted wood slip-on cases in your choice of lustrous walnut, mahogany and blond finishes. There is also an economical leatherette covered metal case.
FAMOUS MUSICAL ARTISTS CHOOSE
H. H. SCOTT HIGH FIDELITY COMPONENTS
FOR THEIR OWN HOMES

The trained musical ear demands perfection. That's why leading musicians choose H. H. Scott high fidelity components for their own homes.