

NEW

BROOK

ALL TRIODE HIGH QUALITY AUDIO AMPLIFIER

Model 22A



10-WATT
SINGLE-CHASSIS POWER AND
PRE-AMPLIFIER COMBINATION

Designed by Lincoln Walsh

This totally new BROOK High Quality Audio Amplifier offers a startling sense of realism in musical reproduction . . . a natural quality in sound so "live" the listener will actually feel the presence of the original performers. All the delicate nuances of sound are reproduced in full character. Speaking voices have the natural quality experienced when a person speaks to you from across the room.

The Model 22A is equally well suited for commercial applications, in the laboratory where exacting engineering specifications prevail, or as the heart of a high quality sound system in the home. It incorporates all the time-proven advantages of BROOK low- μ triode circuits and exclusive BROOK transformers, in a compact single unit that occupies only minimum space when built into a custom installation, lending itself equally well for table use.

Designed to evoke a pleasing reaction within the listener, the "clean" audio quality of the BROOK Model 22A is a revelation in genuine listening enjoyment.

BROOK ELECTRONICS, INC.

First in the High-Quality Audio Field Since 1934

34 DeHART PLACE, ELIZABETH, N. J.

Latest **BROOK** Development... Model 22A

Designed by *Lincoln Walsh*

Here it is . . . truly high quality sound reproduction at a cost so low . . . any music lover can afford it. Despite the unprecedented low price, no sacrifice has been allowed in the **quality** of audio performance, always synonymous with BROOK amplification.

While drastically different in appearance and circuitry, the trim Model 22A has evolved largely from the famous BROOK Model 12A4. It features a number of the 12A4's salient traits, such as the transient peak circuit, which offers effective power above its rating on short peaks. For example, at peak of loudness, a piano note will reproduce clean up to approximately 15 watts. At extremely low frequencies, full power of 10 watts is delivered undistorted to the speaker down to 24 cycles.

All low- μ triodes, employed exclusively in BROOK Amplifiers, are used to offer the listener the smoothest, most **natural** sound reproduction possible. The problem of "listening fatigue," a disturbing by-product of many audio amplifiers, is eliminated as the triode circuit gives far less distortion of the higher order harmonics. At nominal power, the 22A delivers 10 watts with less than 1% total harmonic distortion and less than 2% distortion due to intermodulation.

Complete flexibility of tone control and simplicity of operation are attained in the design of the control panel. Coping with today's expanding audio systems, the channel

selector switch provides 5 inputs to accommodate FM, AM or TV receivers, tape recorders and phono pickup. See specifications below for details. A separate 6-position control provides noiseless switching while matching the recording curves employed by today's leading record manufacturers. The middle knob controls the bass, and may well be called the delight of the audio connoisseur. It employs the time-proven BROOK stepped circuit with 2-stage RC network. At high level, 50 cycles can be boosted up to 15 db; at low level, over 40 db. The curve rises approximately 12 db per octave, and the upward slope of the bass-control curve continues to rise well below 30 cycles, to give the very smoothest bass, for which BROOK is famous, with no trace of "boominess." Similarly, the treble control employs a 2-stage RC stepped network, allowing the "highs" to be reduced as much as 30 db at 10,000 cycles. The curve slopes at 12 db per octave, for the best musical quality while attenuating high noise level.

As in every BROOK Amplifier ever built, the volume control includes automatic bass compensation to compensate fully for the bass loudness characteristics of the human ear, in accordance with Fletcher-Munson curves.

The Model 22A is the first completely enclosed amplifier BROOK has built. As will be noted from the illustration, the unit is designed to provide adequate ventilation. The Model 22A is attractively finished in gold and brown.

SPECIFICATIONS

- FREQUENCY RANGE** With volume control set at Position 7, Bass Control at 1, and Treble Control at 6, overall response is flat within 1 db from 20 to 20,000 cps.
- POWER OUTPUT** Nominal: 10 watts at less than 1% harmonic distortion; less than 2% intermodulation distortion.
Peak: Approximately 15 watts.
Low Frequency: 10 watts @ 24 cps.
- POWER CONSUMPTION** 117 volts, 50/60 cps AC, 110 watts.
- OUTPUT IMPEDANCE** 2, 4, 8, 16 ohms, nominal.
- GAIN** From 75 db to 110 db — see Channel Selector Switch.
- DAMPING FACTOR** 10 @ 1000 cps. (2A3's give excellent damping of speaker diaphragm at resonance without feedback; with negative voltage feedback, damping is further increased.)
- CONTROLS** Channel Selector, Record Playback Characteristic, Bass, Treble, Volume, Power Switch, and Pilot Light.
- CHANNEL SELECTOR**
 - A&B — Gain 95 db. Input impedance .25 meg; Maximum signal 20 volts . . . with level controls.
 - C — Gain 95 db. Input impedance 1 megohm; Maximum signal 1 volt.
 - D — Gain 75 db. Input impedance 1 megohm; Maximum signal 10 volts.
 - E — Gain 110 db at 1000 cycles for Magnetic or Variable Reluctance Pickups . . . with Level Control. Adjustable playback compensation for all recording characteristics.
- For Disc Records**
- RECORD PLAYBACK CHARACTERISTIC CONTROL** 6 positions . . . Noiseless switching to match most widely used recording curves.
- BASS CONTROL** Time-proven BROOK stepped circuit with 2-stage RC network; 7 positions. Position 1 flat @ 50 cps. At high level, 50 cycles can be boosted up to 15 db; at low level over 40 db.
- TREBLE CONTROL** 2-stage RC stepped network; 7 positions. Position 7 flat @ 10,000 cps. Treble may be reduced as much as 30 db at 10,000 cps. Curve slopes at 12 db per octave for best musical quality at high noise attenuation.
- VOLUME CONTROL** Automatic Bass Compensation fully compensates for loudness (Fletcher-Munson Curve).
- TUBES** 2 - 2A3's; 3 - 6C4's; 2 - 12AU7's; 1 - 6SJ7 (triode connected) for low hum on record input; 5U4 rectifier.
- DIMENSIONS** 13 $\frac{3}{4}$ " wide, 13 $\frac{3}{4}$ " deep, 4 $\frac{1}{2}$ " high.
- ESCUTCHEON** Removable lucite to provide good appearance when mounted in a cabinet.
- NET WEIGHT** 22 lbs.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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