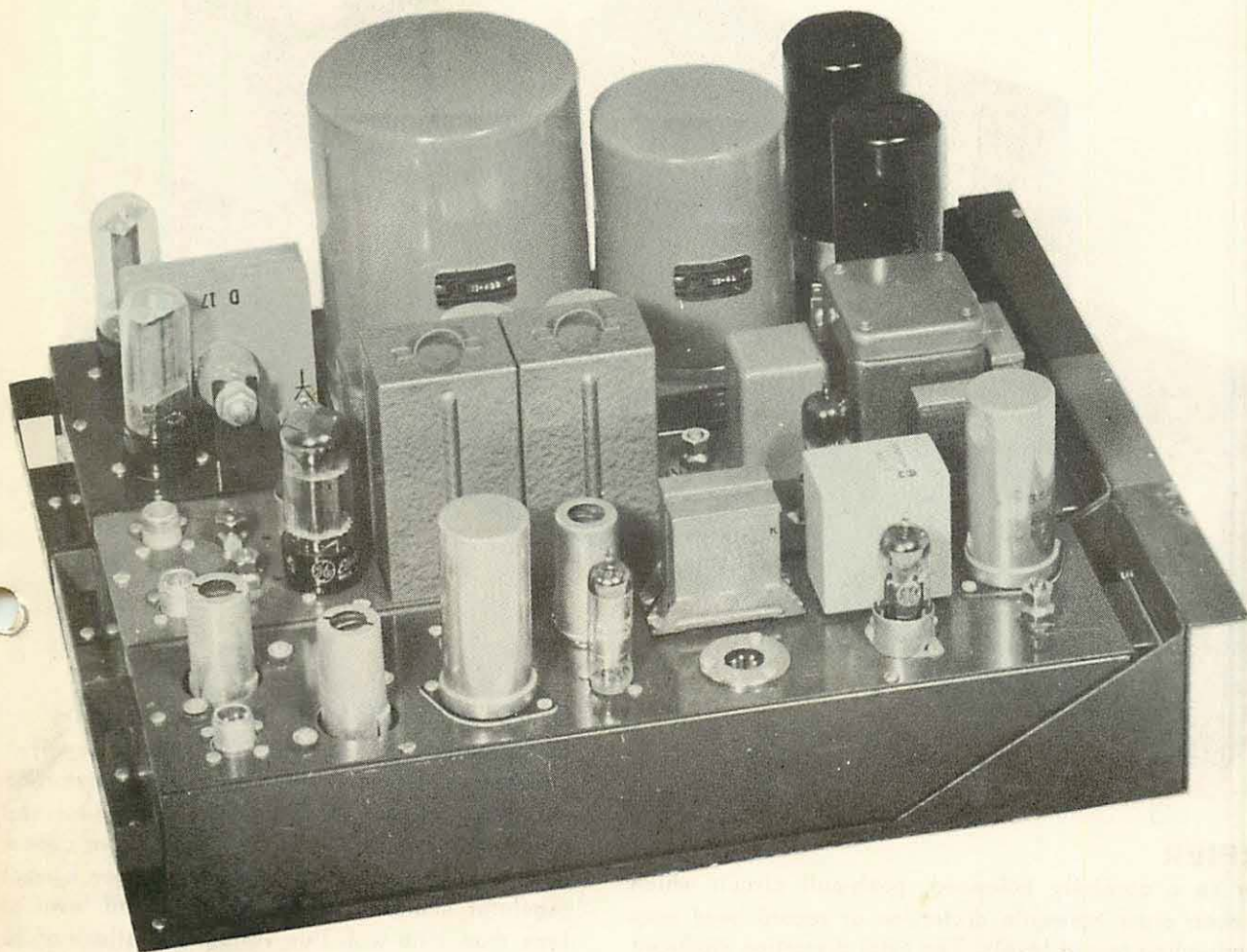


Gotham

TAPE RECORDING AMPLIFIERS



Here, at long last, is the answer to your critical magnetic recording and playback needs. Gotham Recording Corporation, one of the largest custom recording firms in the East with over five years experience with studio tape consoles, has found today's "broadcast standards" in tape recording insufficient for continuous, commercial-quality service. Perhaps you too have been troubled by some of the following: fluctuations in record or playback levels or equalization from day to day; gradual increase in background noise; pops and clicks on your tape each time a button is depressed; undue distortion; necessity to select input tubes; recording schedules upset by inoperative electronics.

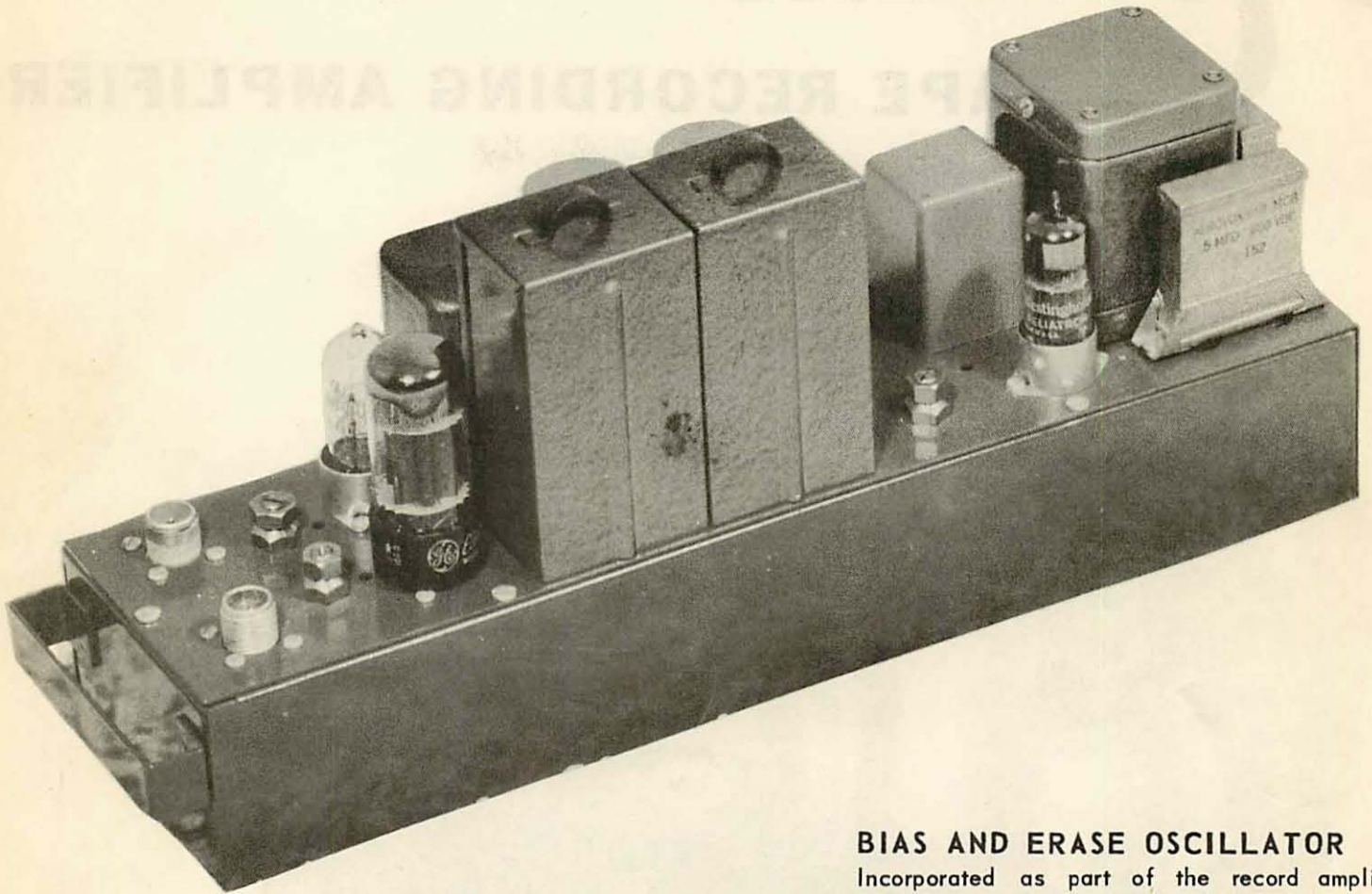
We are convinced that we have found the solution. The result is a unitized tape electronic system, able to withstand the rigors of 18-hour-a-day commercial service, at the same time achieving or surpassing specifications heretofore only found in advertisements and instruction books. Record input through tape, to playback output response within 1.5 db from 30 - 20,000 cycles at 15"/second. May we suggest that your future tape needs should combine the units here described with any high-quality tape transport mechanism. Compare the performances of these units with any available in this country today.

Gotham Audio Development Corp.

2 WEST 46TH STREET, NEW YORK 36.

JUDSON 6-5577

for recording.....



RECORD AMPLIFIER

The record amplifier is a carefully balanced, push-pull circuit which cannot produce any even order harmonic distortion or record head magnetization even at overloading record levels. The total distortion produced in the record amplifier is below .05% at a level 10 db above the 1% tape distortion point at any frequency from 20-20,000 cycles. This eliminates the record amplifier almost entirely as a source of distortion. The built-in equalizer for 7½" & 15" or 15" & 30" utilizes toroidal inductors as well as RC networks to maintain an overall frequency response adhering to the proposed NARTB standard tape recording curve within 1 db from 20-20,000 cycles. There are NO heterodyne whistles produced by any frequency up to 30 kilocycles. The recording level will remain constant, since over 12 db of feedback will produce a change in record level of less than 0.5 db with line voltage variations from 70v to 135v, or up to 40% reduction in the mutual conductance of the tubes.

BIAS AND ERASE OSCILLATOR

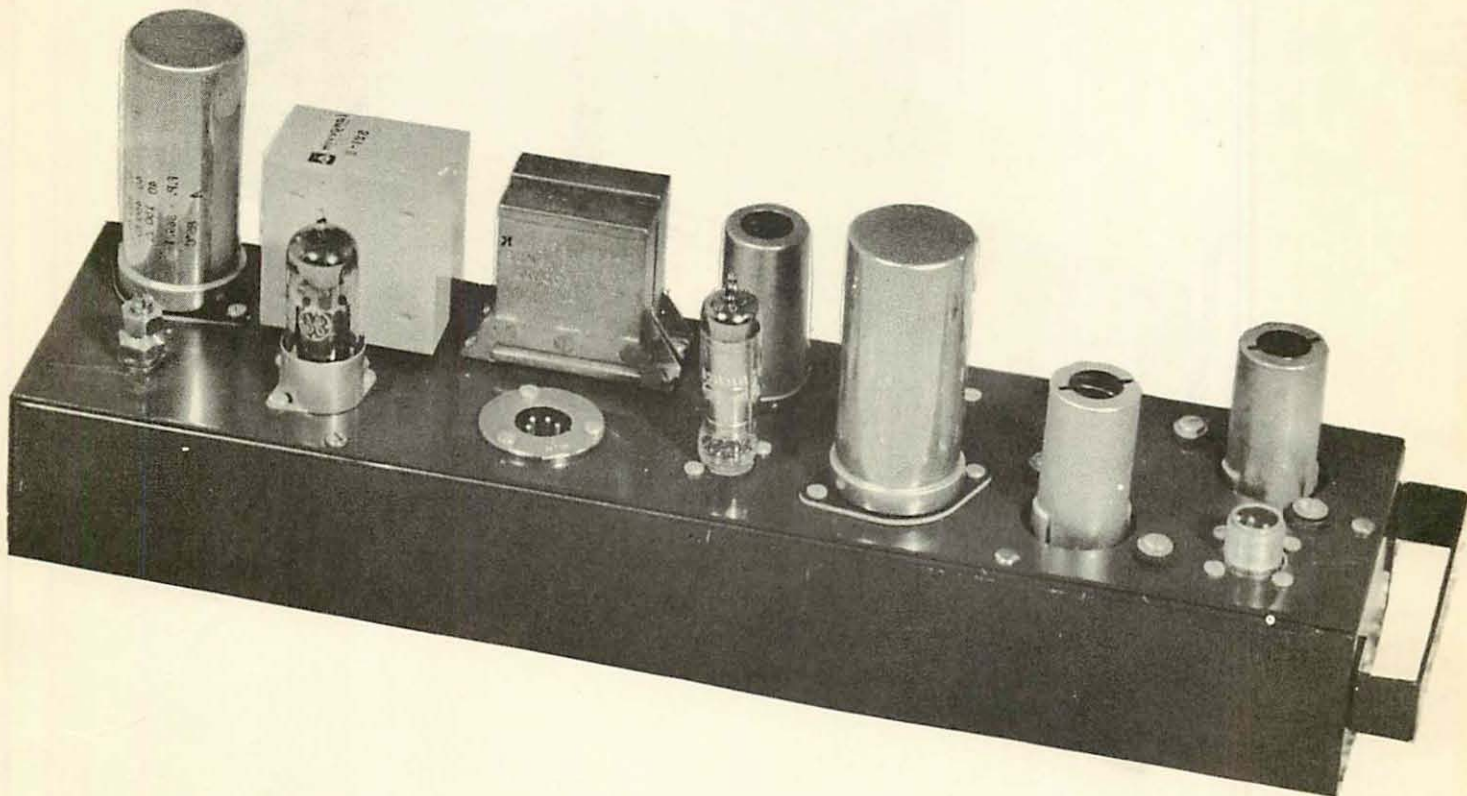
Incorporated as part of the record amplifier chassis is a new type of stable, low-distortion oscillator circuit. A ferrite core, semi-toroidal hi-Q oscillator coil enclosed in a drawn copper can, in conjunction with an iron-hydrogen current regulator maintains a change in record level of less than 1 db with line voltage variations of 80 to 140 volts or tube aging from 7000 to 4000 micromhos. Any noise produced by asymmetry is removed by a noise balancing control in the oscillator itself. Bias and erase frequency is 120 kc.

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for playback.....



PLAYBACK AMPLIFIER:

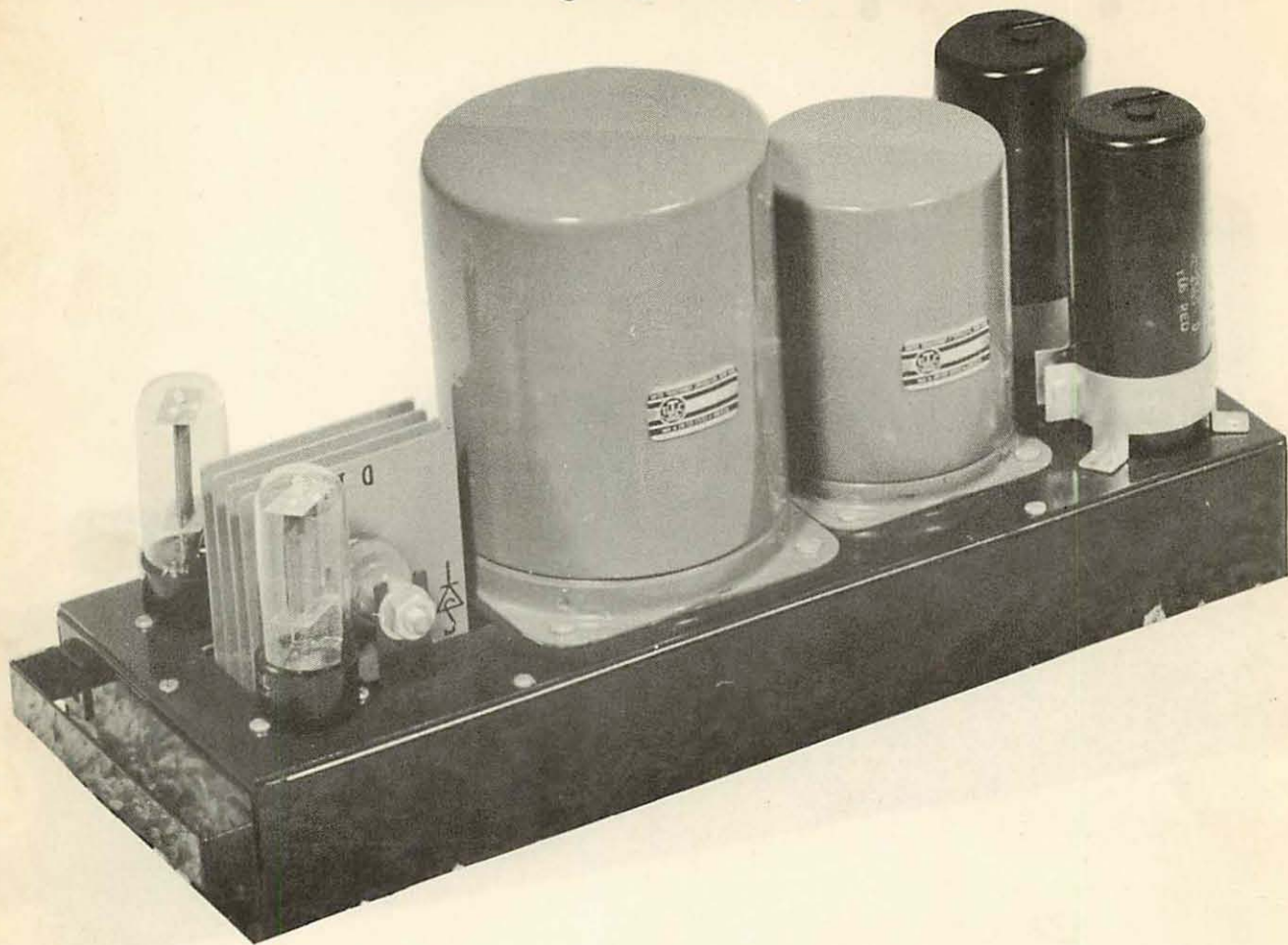
The playback amplifier consists of six (6) gain stages. Two Z-729 tubes, triode-connected in a feedback pair and well shockmounted, form the input stage. Equalization networks for 7½" & 15" tape speeds are built in, while characteristics for any other speeds are easily made available through the use of a plug-in relay assembly available as an accessory. The entire amplifier is DC heated. Gain is stabilized through the use of over 50 db of feedback. Changes in gain and equalization are at all times less than .5 db with line voltage fluctuations from 65v to 135 volts or the aging of tubes to approximately half of their nominal mutual conductance. There is no necessity for realignment of gain or response after change of tubes. Distortion is less than .5% at an output of plus 18 dbm, (10 db above program level), from 40 - 15,000 cycles. Distortion of the unit at 1% tape distortion levels is less than .05% RMS. Noise inherent in the playback unit alone averages 65 db below plus 8 dbm.

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power supply.....



POWER SUPPLY:

This unit supplies sufficient plate and filament current to operate one record and one playback unit. From a line voltage input of 117 volts 60 cycle, it produces 330 volts DC plate supply at 150 ma. with .001% ripple for playback and .003 for recording. A 12.6 volt DC filament selenium supply delivers 2 amps at 1% ripple as well as 6.3 volts AC for the oscillator tube.

COMPONENTS:

All three units are engineered with over-rated components to provide maximum maintenance-free service. All electrolytic condensers are of the recently developed "Long-Life" type manufactured by Sprague Electric Co. with a life expectancy of over 10 years, while power-supply filtering is achieved through hermetically-sealed, bakelite encased, Mallory HC-type capacitors. Precision wire-wound resistors are used exclusively in both playback input stages for lowest noise, while Allen-Bradley composition-type pots assure trouble-free operation. Record and speed-change relays are the telephone type, top mounted in individually shielded cans, with arcing across contacts completely eliminated. Selenium contact-protectors eliminate relay switching surge voltages. Bathtub-type oil-filled coupling condensers are used in critical applications while amphenol blue-ribbon, gold plated connectors are used for plug-in.

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