CONFORMANCE TO NARTB EQUALIZATION.

As a matter of fact, direct coupling was tried. The values of $B_1$ and $B_2$ were juggled to make the grid of $V_1$, a few volts negative with respect to cathode. Although the circuit worked satisfactorily with one 12AX7, substitution of another 12AX7 caused the grid to go positive with respect to cathode. Both tubes checked out on a tube tester. Although this may have been the result of one chance in a thousand, it was felt that this was one chance too many, and orthodox RC coupling was therefore used.

V. COMBATING HUM

The principal obstacle to a satisfactory signal-to-noise ratio in a tape amplifier is hum. It may consist of the 60-eps fundamental, the 120-eps second harmonic originating in the B+ supply, or the 180-eps third harmonic emanating from the power transformer or transport motor. The battle against hum is of sufficient importance to justify a separate section on this subject.

The following steps were employed to reduce hum to a minimum. Some of these measures produce several db improvement and others only a fraction of a db.

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100. Use of a d.c. heater supply.

For Listening at Its Best

Electro-Sonic Laboratories, Inc.
Dept. A - 35-54 Thirty-sixth Street, Long Island City 6, N.Y.

Are you Boom Conscious?...

Most people know by this time that many, if not most, loudspeaker enclosures ... regardless of size or price ... boom. Boom is that dull, heavy, toneless thud often heard at low frequencies. Boom is also called "one-tone bass" or "pump-box bass." It is an inherent characteristic of so-called "resonant" enclosures. Boom is nothing but distortion, and any speaker system that boom is not high fidelity.

Notwithstanding this, and believe it or not, there are still people who will spend hundreds, and even thousands, of dollars for prime amplifiers, tuners, etc., and then go out and buy a boom-box. Why?

A noted psychiatrist undertook to find the answer. He found that (1) some people mistake mere loudness (so-called "agitated bass") for true bass; (2) others are unable to tell the difference between true bass and boom; (3) some think boom is bass; (4) others think boom is bass because it comes from large and/or expensive enclosures; (5) others have a fixation for causing myths, such as: "The bigger the box the better the sound"; (6) some infinitely resist progress and never seem able to adjust themselves to better things as they come along; (7) others are impressed by expensive advertising and high-pressure sales promotion.

And so it goes, even though, actually, no one ever heard boom from a live orchestra. And since a live orchestra is not a boom-box, why should anyone want a boom-box in his home? Fortunately, no one has to buy a boom-box.

To those who want live-music facsimile instead of boom, competent sound engineers unequivocally recommend THE BRADFORD PERFECT Baffle. IT DOES NOT BOOM...EVER. The result is clean, true bass. This is accomplished by a new, patented device based upon a scientific principle. It is not a bass-reflex or folded horn.

Moreover, it satisfies every other criteria of the discriminating audiophile: Compactness; $2^1_2 \times 12^1_2 \times 5^1_2$ for 12s and 15s; $17^1_2 \times 17^1_2 \times 14^1_2$ for 15s and 15s; Finest Construction and Finish; Solid genuine mahogany; korina blond, walnut, and ebony veneers; and unfinished birch.

Circle 67a