

Last January, Audiocraft published the circuit of a super-deluxe 36-watt power amplifier. This article created such a stir among audiophiles that we were swamped with letters. Here, at last, in response to reader demand, is a pictorial diagram of the

Perfectionist's Power Amplifier

When Ben Zale, an audiophile from Philadelphia, first submitted his reworked Mullard circuit to us, we recognized the quality which he had built into the design — the precision resistors which were used throughout the amplifier and power supply, the rugged chokes and oil-filled capacitors which insure a signal-to-noise ratio of 90 db plus, the Ultra-Linear output stage built around the highly touted EL34. But we had no idea that this design would envelop the fancy of audiophiles across the nation, arousing in them a flurry of letter writing such as we have not seen in Great Barrington in many a moon.

Many built the amplifier from the schematic and photos which appeared in the January issue. But many others, eyes gleaming as they read the almost fantastic distortion figures, wrote pleading letters, urging us to send them individual pictorial diagrams, and offering to pay whatever necessary, so that they, like their more experienced brothers in audiophilia, could reap the benefits of this audiophile's dream come true. The pile of correspondence was too great to be ignored, and here is our answer.

On the facing page are two pictorials, one each for the amplifier proper and the power supply. Below is a chart listing voltage readings at tube sockets and at other significant points throughout the amplifier.

The pictorial shows, as unfortunately the January schematic did not, that the Acro TO-300 output transformer has the conventional output windings to match 4, 8, or 16-ohm speakers. The feedback network, although described by Mr. Zale as being evolved for 16 ohms, in practice effectively functions for all output impedances. In one or two instances a conflict arose between the parts list and the schematic — this should in all cases be resolved in favor of the schematic, and, of course, in favor of the parts values as listed on the facing page.

Finally — and, let's face it, we goofed — the power transformer was listed in the parts list as a UTC H-86, or equivalent. We searched our catalogues for an H-86, to no avail. Feeling that readers would similarly share our exasperation, we decided to purchase an "equivalent," and ultimately chose the Triad R-26A which, although it has more windings than we needed (the unused ones are shown on the pictorial soldered to an out-of-the-way terminal strip), came closest to matching the voltage and current requirements of Mr. Zale's design.

And that's the story of the Perfectionist's Power Amplifier; it is tedious and involved, but for those who have built or can now build one of these magnificent machines, well worth every word of it. Happy listening.

Voltage Chart

Pin	EF86	ECC83	EL34-1	EL34-2	GZ34	Power Cable
1	124 v DC	375 v DC	38 v DC	38 v DC	NC	NC
2	0	89 v DC	6.3 v AC	6.3 v AC	5 v AC	6.3 v AC
3	2.5 v DC	99 v DC	470 v DC	470 v DC	NC	6.3 v AC
4	6.3 v AC	6.3 v AC	490 v DC	490 v DC	500 v AC	480 v DC
5	6.3 v AC	6.3 v AC	5 v DC	5 v DC	NC	490 v DC
6	95 v DC	385 v DC	NC	NC	500 v AC	NC
7	0	97 v DC	6.3 v AC	6.3 v AC	NC	NC
8	2.5 v DC	99 v DC	38 v DC	38 v DC	5 v AC	Ground
					500 v DC	Ground
9	0	6.3 v AC	—	—	—	—

DC bias at center lug of filament balance potentiometer: 22 v

More detailed information about the Perfectionist's Power Amplifier may be found in the original article which appeared in the January, 1958, issue of Audiocraft, pages 16-19.

