

## One Unit Capable of Attaining to Ultimate Localization and Depth Sensitivity" Black Gate NX Vita Drive

Generally speaking, the sound of TR amplifiers is inferior to that of vacuum tube amplifiers as regards localization and depth. This is why there are still two unsolved points concerning the Black Gate series capacitorization. The first is that the NF circuit has unsatisfactory capacitors. This, however, has been completely overcome through the use of BG-N. The second is the phase difference in the input bias circuits, which has yet to be solved up until now. As shown in Figure 1, in all amplifiers, signals pass through the positive and negative bias circuits and drive a pair of complementary TR. However, since the upper and lower electrodes have always had an alternating phase difference for each bias circuit and are synthesized without correction in the output side, input and output waves are always different; therefore, the above described information from the signals is greatly missed. Furthermore, with the distortion added by switching, a great reduction takes place. Countermeasures up to now were to adopt A class amplifiers and to change bias circuits. However, all of these were temporary measures and nothing was achieved. Returning to the basic problems, with the utilization of BG techniques, and with the concentrated power for the development of a super low E.S.R., non-polar and non-distortion capacitors which allow the input bias circuit to be completely the same as alternating phase pouring, Jelmax, at last, became the first in the world to overcome this difficult problem. This is the Black Gate NX. As shown in Figure 2, the unrealizable super large capacity film capacitors, that is, E.S.R. having surprising a one-tenth value in general electrolysis, have been realized. As a result, the problems involved in TR amplifiers have been solved in a single step.

That is:

- (1) Black Gate series capacitorized amplifiers have a completely complementary action independent of the operating points and power, and S/N, information volume and power sensitivity are tremendously increased.
- (2) As a result of short-circuiting input at zero-impedance, switching distortion disappears.

An audio professional expert observing this experiment of this amplifier was astonished, saying "I had the illusion, with the focal point in all voice changes just adjusted, as if the announcer was right in front of me when listening to FM, as if I was the conductor, not just in the front seat of the stage when listening to an orchestra". We have finally grasped at last the essential quality of amplifiers and conquered it. This circuit was named 'Vita Drive' circuit (vivid drive circuit) (PAT. PEND). After using this circuit with Neuman Co.'s cutting amplifiers, a super analogue record which we have never seen before finally came into being. The long pending problem with analogue records was in the power amplifiers. With this new system, we can absolutely provide records greatly exceeding CDs for those desiring quality sounds. We welcome amateurs and professionals interested in true sounds. (It is necessary to operate idling for total 50H.)

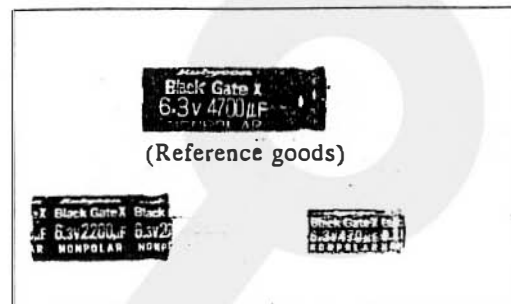
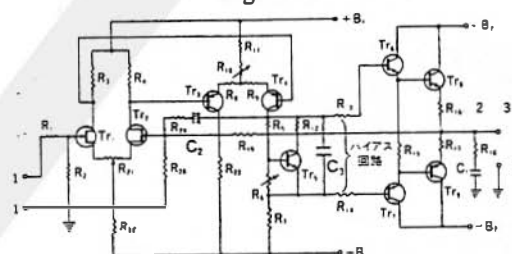


Figure 1.



C<sub>2</sub> For NF: BGN 50V100F or 47µF.

C<sub>3</sub> For bias shunt: BGNX 6.3V470µF  
or 6.3V2200µF.

Figure 2. Impedance and E.S.R. characteristics  
BG-NX 2200µF (YHP-4192A, AT 25 °C)

