

JBL N400

Crossover frequency... 500 cps
 Impedance 16 ohms
 Shipping weight..... 10 lbs.
 This network is used in highest quality maximum-efficiency loudspeaker systems such as the JBL 080, 081, and 085. The N400 matches the characteristics of the incomparable 375 high frequency driver to those of a single 150-4C bass driver, or two 150-4's.

JBL N600

Crossover frequency... 600 cps
 Impedance 16 ohms
 Shipping weight..... 9½ lbs.
 Designed for use with the JBL 130A or two 130B bass drivers and the 275 high frequency driver. The N600 is a part of the JBL 205 system — a combination of precision transducers which delivers outstanding stereo reproduction in the JBL-Ranger METREGON.

JBL N1200

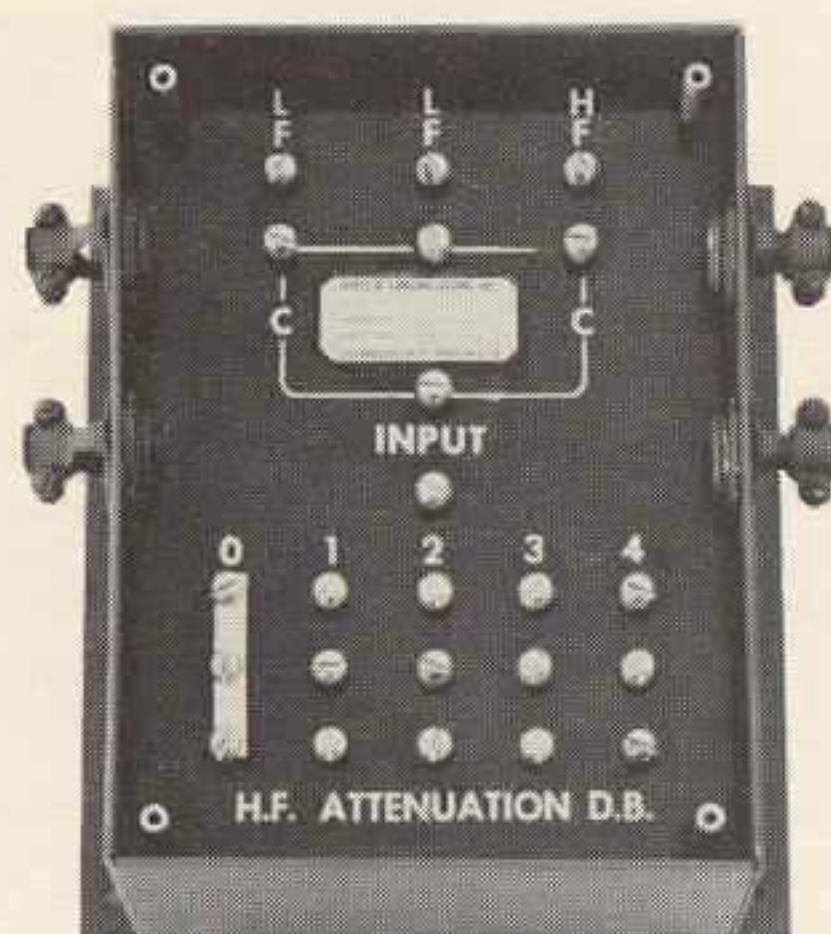
Crossover frequency.. 1200 cps
 Impedance 16 ohms
 Shipping weight..... 9 lbs.
 The N1200 is used with the JBL 175DLH high frequency assembly and the 130A bass driver in the famous JBL 001 loudspeaker system. This network also balances the 175DLH with two 130B bass drivers in the JBL 050 system. The N1200 is one of the most popular professional networks ever made available to the audiophile.



Models N400, N600 and N1200 are husky networks individually tested to meet exacting production standards. A 3-position switch adjusts the intensity of the high frequency transducer in 3 db steps. An autotransformer is used for high frequency control rather than resistive pads. The tapped transformer maintains tight coupling between the high frequency driver and the amplifier no matter where the switch is set.

These networks give 12 db per octave attenuation on each side of the crossover frequency when used with recommended JBL transducers.

Case measures 4¾" x 6" x 4-11/16"

**JBL N500**

This 500 cycle network is designed for maximum efficiency theater systems using 150-4 or 150-4C bass drivers and the 375 high frequency driver. The N500 has extremely low insertion loss and will handle high power levels without distortion — features which make it especially suited for theater work. High frequency attenuation is adjusted by a strapping bar in four 1 db steps. Cable clamps and metal cover for the case are included. Case measures 6" x 8" x 6". Shipping weight — 16 lbs. Attenuation — 12 db per octave on each side of crossover.

N400 N1200
 N500 N2400
 N600 N2600
 N7000

**DIVIDING
 NETWORKS**

Dividing networks are used in two-way loudspeaker systems to electrically channel low tones to the bass loudspeaker, high notes and overtones to the high frequency transducer.

JBL precision dividing networks use circuits carefully designed to give an imperceptible transition from low to high frequency transducers.

Each network is specifically engineered to match the characteristics of the JBL transducers with which it is used.

JBL

JBL

N400 N1200
 N500 N2400
 N600 N2600
 N7000

DIVIDING NETWORKS

Models N2400, N2600, and N7000 are mounted on a cast aluminum excutcheon for easy installation in a single hole cut in the mounting board. A continuously variable control is provided so that the intensity of the high frequency transducer can be adjusted for optimum balance to suit your personal listening taste and to compensate for the effect of room acoustics.

These networks give 12 db per octave acoustic attenuation on each side of the crossover frequency when used with recommended JBL transducers.

Case measures 4³/₄" x 6" x 3¹/₂"

JBL N2600

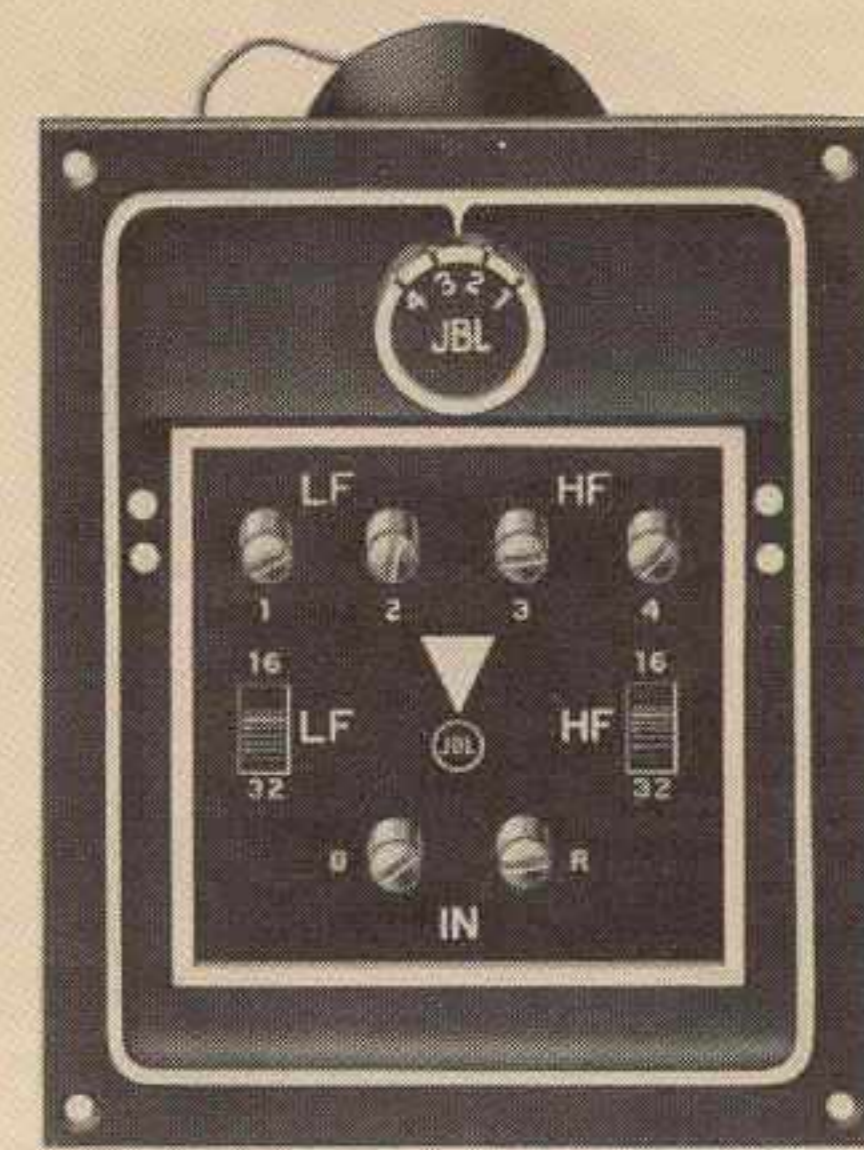
This network is designed to match the 075 high frequency transducer to one or two extended-range speakers (JBL D130, D131, D123, D216). Impedance selecting switches allow multiple speakers to be connected to either the high frequency or low frequency terminals, provided the effective impedance of the combination totals 16 or 32 ohms. For example, the N2600 will match the 075 to a single D123 loudspeaker. If you later wish to add a second D123, the two cone speakers are connected in series, and the LF switch on the N2600 is changed to the 32 ohm position.

JBL N7000

The N7000 provides a means of adding the 075 to existing high-quality two-way loudspeaker systems where it is desired to extend the high frequency performance of the system beyond human audibility. This is valuable in live program monitoring and other applications where clean, extended high frequency material is present in the program source. By using a frequency of 7000 cps for the upper crossover point, the 075 reproduces only the delicate overtones. There is no effect of having an instrument suddenly "jump" from one reproduce to another.

JBL dividing networks are designed so that the transducers used will exhibit a 12 db per octave rolloff on each side of the crossover frequency. The figure of 12 db per octave was chosen on the basis of both theoretical considerations and actual acoustic measurements with JBL units.

Experiments indicate that rolloff rates less than 12 db per octave do not sufficiently isolate the low and high frequency channels — sound from the two transducers overlaps and gives rise to interference and ragged response. On the other hand, circuits giving rolloff rates greater than this figure may introduce "ringing" and transient distortion.

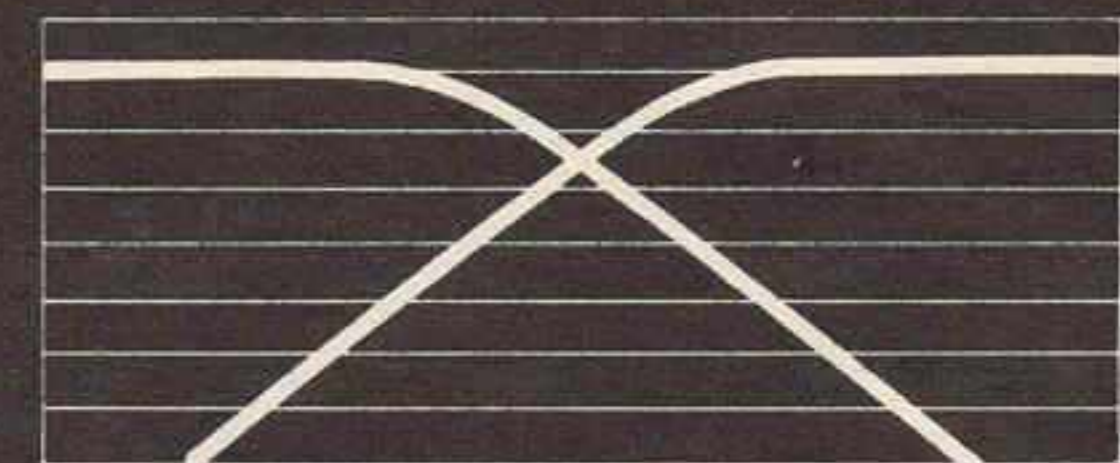


Crossover frequency . . . 2500 cps
 Input impedance 16 ohms
 Output impedance 16 or 32 ohms
 (switch-selected at HF and LF posts)
 Shipping weight 3³/₄ lbs.

Crossover frequency . . . 7000 cps
 Impedance 16 ohms
 Shipping weight 3 lbs.

JBL N2400

Identical to Model N2600, except without impedance selecting switches.



12 db PER OCTAVE CROSSOVER CURVE

For information concerning other applications to JBL Dividing Networks, write to Technical Service Department, James B. Lansing Sound, Inc. In submitting problems, please supply all details concerning desired use.



If a dividing network is to fulfill its function without compromise, it must be able to handle extreme variations in dynamics, the full range of audio frequencies, complex transients, and the varying impedance of a loudspeaker load.

JBL networks are designed and tested by acoustical measurements of the actual loudspeaker systems with which they are used. Circuit values are adjusted until acoustic response is uniform through the crossover region. Thus, the effects of individual speaker characteristics, impedance fluctuations, and the physical separation of the two sound sources are all taken into account in the final system design.

Naturally, such sophisticated engineering demands very close production tolerances if full benefit is to be derived from the complex circuitry. Ordinary networks often use electrolytic capacitors with tolerances of plus or minus 20%. Such networks exhibit rough response through the crossover region, and characteristics vary greatly from unit to unit. All JBL networks use hand-wound aluminum foil capacitors (not electrolytic units) which meet tolerances of plus or minus 1%. The low-loss inductors used in JBL networks are also held to production tolerances of plus or minus 1%.