

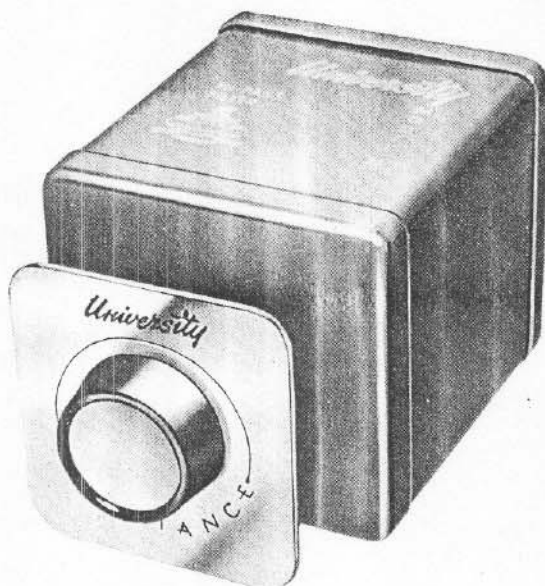


UNIVERSITY SOUND



HIGH
FIDELITY

Specifications and Instructions



Model N-1 Adjustable High Pass Filter

SPECIAL FEATURES

Built-in Brilliance Control
Adjustable Crossover Points
Adjustable Impedances
Fits Panels Up to 1" Thick

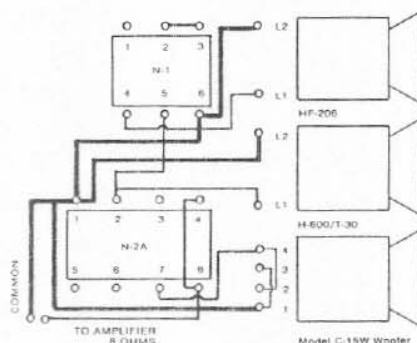
DESCRIPTION

The University Sound Model N-1 Adjustable High Pass Filter is designed for use as a crossover device in multi-speaker systems when adding a tweeter to any 8", 12" or 15" cone speaker. The adjustable feature of the N-1 permits its use with tweeters employing 4, 8, or 16 ohm voice coils. Flexibility in choice of crossover points makes the N-1 ideal for use when adding a tweeter to "extended range" speakers as well. When used with a tweeter and the Model C-12SW Adjustable Response Woofer, the combination of the N-1 and the built-in high frequency limiter of the C-12SW forms the equivalent of a full L/C dividing network. The N-1 can also be used in combination with the Model N-2A Adjustable L/C Dividing Network in 3-way speaker systems. Other unique features of the Model N-1 include screw type terminals for easy connection, built-in continuously variable high frequency level control, adjustable mounting bushing which fits into panels up to 1" thick. Table 2 illustrates the different connections for various crossover points at given impedances.

WOOFER	LO-CROSS- OVER NETWORK	MID- RANGE SPEAKER	HI-CROSS- OVER NETWORK	TWEETER
C-12SW	None	None	N-1	4401, UXT-5, or HF-206
Diffusicone-8	Built-in	Built-in	N-1	4401, UXT-5, or HF-206
Diffusicone-12	Built-in	Built-in	N-1	4401, UXT-5, or HF-206
C-12SW or C-15W	N-2A	Diffusicone 8, H-600/T-30, or Cobreflex/T-30	N-1	4401, UXT-5, or HF-206
TABLE 1—SOME SUGGESTED SPEAKER COMBINATIONS USING UNIVERSITY HIGH FREQUENCY TWEETERS				

PROPER PHASING

Often, room acoustics, baffling and individual speaker characteristics affect the overall sound produced by multi-speaker systems. It is good procedure to check the "phasing" between speakers for best overall performance; and this is generally judged by personal taste and hearing. A simple test for phasing can be made by ear. Detune the radio between stations for high frequency static or noise, or place the phonograph stylus in the spiral groove at the end of a record. Reverse the connections to the respective speakers to find the positions producing the loudest total sound output.



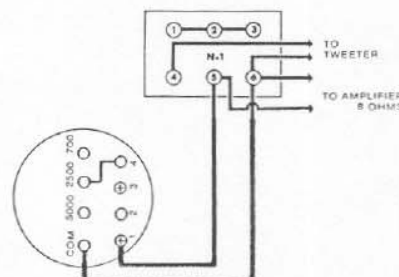
Typical application of the N-1 adjustable high pass filter in a 3-way speaker system. An AP-8 Level Control might also be installed in series with the mid-range to adjust its level to suit personal tastes.

TABLE 2 - Diagrams showing connections when using the Model N-1 Adjustable High Pass Filter in multi-speaker systems. The adjustable feature permits use of the Model N-1 in multi-speaker systems with impedances of 4, 8, and 16 ohms with a choice of various crossover frequencies.

TWEETER IMPEDANCE IN OHMS	CROSSOVER FREQUENCIES IN Hz	CONNECTIONS
8	10,000	
16	5,000	
4	10,000	
8	5,000	
16	2,500	
4	5,000	
8	2,500	
16	1,250	

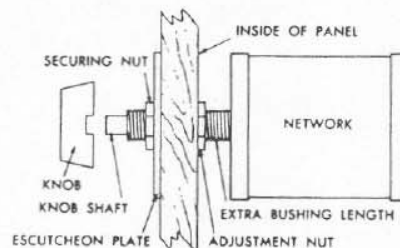
USE OF THE N-1 HIGH PASS FILTER,

in combination with the C-12SW adjustable response Woofer with its built-in adjustable frequency roll-off device achieves the results of an L/C 2-way crossover network and still retains the adjustable features of both components. A typical hook-up is shown here for a 2-way system intended for crossover to a tweeter at 2500 Hz.



MOUNTING THE N-1 FILTER INTO A CABINET PANEL

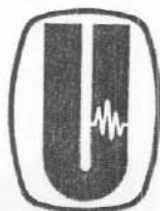
Drill $\frac{3}{8}$ " hole in panel. Note extra-long control bushing and extra nut supplied for adjustment of N-1 to panel thickness. You will note that the escutcheon plate has two mounting holes. When mounting the N-1 into cabinet, select the correct hole in the plate in order that the desired nomenclature ("presence" or "brilliance") is left exposed after knob is installed.



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WARRANTY University Sound guarantees all products to be free from defective material and workmanship for the following period from the date of resale by an authorized University Sound distributor.

- A. Electronic Products Two (2) Years
- B. Speakers & Microphones Five (5) Years
- C. Underwater Products One (1) Year

University Sound will replace defective parts and repair malfunctioning products under this warranty when the defect occurs

under normal installation and use, provided the unit is returned to our factory via prepaid transportation. (Parcel post is not suggested.) This warranty provides that examination of the returned product must disclose, in our judgment, a manufacturing defect. This warranty does not extend to any product which has been subject to misuse, neglect, accident, improper installation, or where the serial number has been removed or defaced and is given in lieu of any other warranty implied or expressed and will not cover any consequential damages.

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