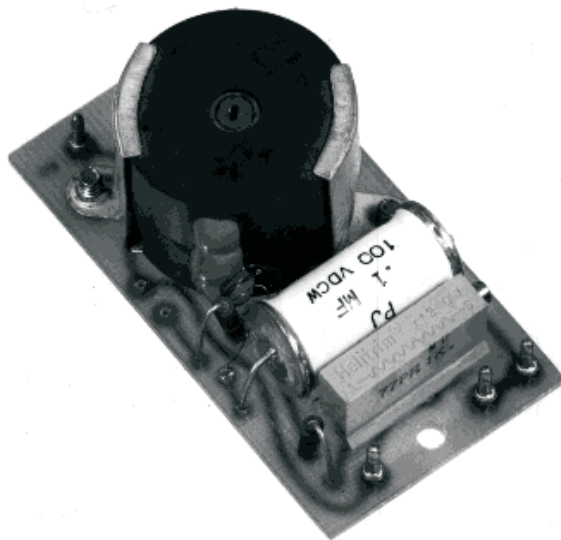




Instruction Manual

098-0165

Model 330 Passive Tone Notch Filter



Model 330 Passive Tone Notch Filter

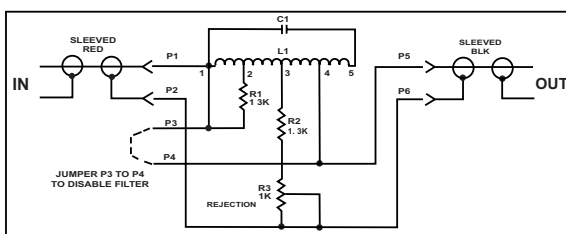
General

The Model 330 passive tone notch filter eliminates annoying tones that are common in burst-tone-accessed radio repeater systems, remote base-station operation, etc.

In a repeater application, the filter must be inserted in the audio path between the receiver and the transmitter. At a remote base station, the filter is inserted in the telephone line to the transmitter. Inserting the filter in a dispatch-console receive amplifier prevents control tones from being heard by the dispatcher. The filter can also be used to suppress one tone of a simultaneous-tone signal. A number of spaced frequencies or a broad band of frequencies can be trapped out by cascading filters through isolation pads.

The 330 notch filter features more than 50 dB notch depth, and a very narrow bandwidth. Speech intelligibility and quality are virtually unaffected, because only a small portion of the audio spectrum is filtered.

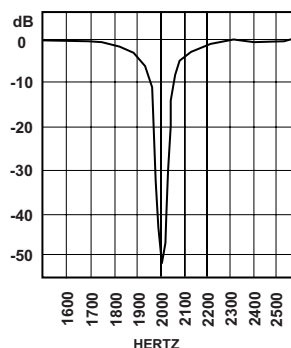
Input and output impedance of the filter is 600 ohms. Isolation transformers (repeat coils) are required for balanced line operation. The passive design allows signal transmission in either direction. (Active solid-state filters, on the other hand, operate in one direction only, and require a power supply.)



Model 330 passive tone notch filter circuit.

Installation

Connect the red shielded cable to the unbalanced signal source. Connect the black shielded cable to the unbalanced signal load. Shield-cable braids must connect to the signal common bus. Signal circuits must be free of DC (verify with a volt meter before installing the filter). Isolate the filter with a coupling capacitor if DC is present; the capacitor must be large enough to pass the lowest required audio frequencies. Rejection control R4 has been factory-set for maximum notch depth, and should not require adjustment.



Typical 330 response.

Model 330 Specifications

Notch Attenuation: More than 50 dB (adjustable) at notch frequency.

Insertion Loss: 2 dB approximately, far from notch frequency

Frequency Range: 800 to 4500 Hz (specify frequency; cannot be adjusted in the field)

Impedance: Nominal 600 W, unbalanced input and output

Maximum Tone Level: +4 dBm

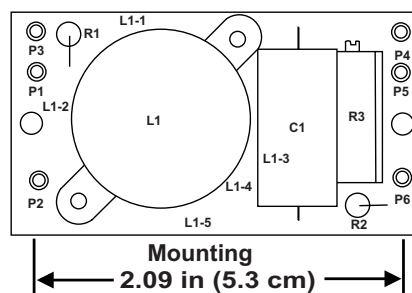
Operating Temperature: -30°C to +70°C

Allowable DC: None

Dimensions: 2.3 in (6.0 cm) X 1.25 in (3.18 cm) X 0.8 in (2.0 cm)

Warranty

Vega signaling products are guaranteed to be free from defects in material and workmanship for a period of three years from the date of shipment. Warranty is for factory repair or replacement only.



Model 330 passive tone notch filter parts location.

Model 330 Parts List

Part No.	Description	Ckt Sym
001-0041	330 NOTCH FILTER SYSTEM	
001-0042	330 PCB ASSEMBLY	
065-5394	PC BD 330 NOTCH FILTER	
105-0119	CAP PS .047 mF 5% 100	C1
130-0454	RES VAR 1K MULTITURN	R3
134-0233	RES RN55D 1.30K 1% 1/4W	R1
		R2
475-1316	PIN TIN PLATED	
672-0002	CABLE SHLD 1 COND #24	



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