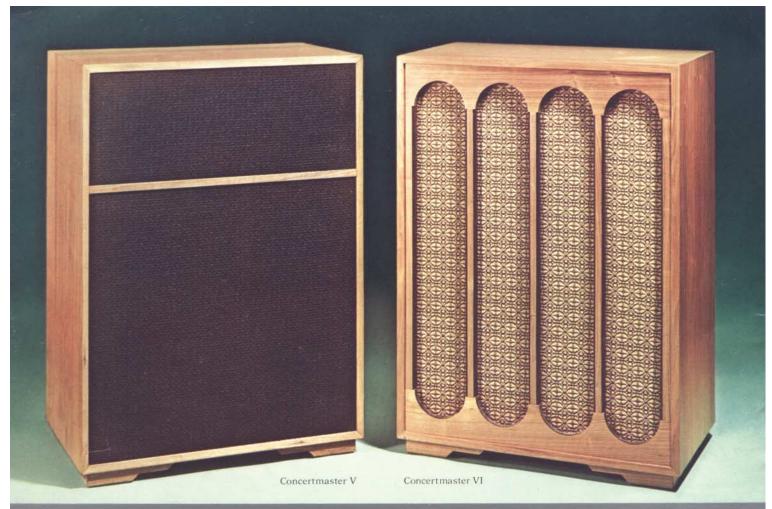
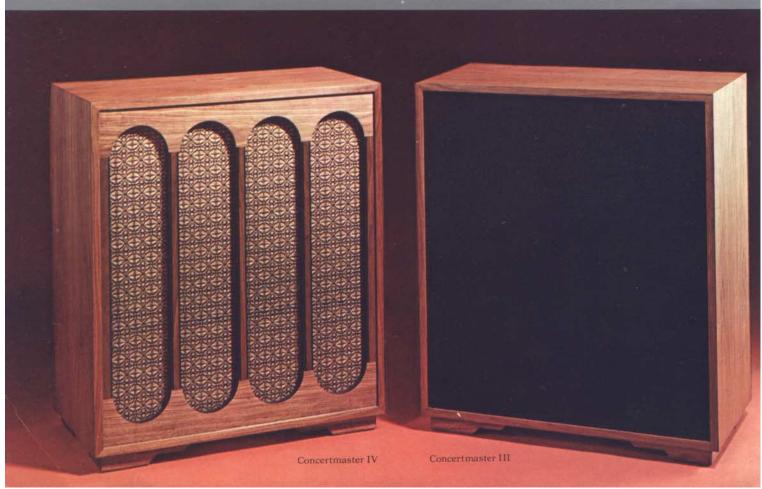
# Please don't pass this on to a friend. Almost no one knows Hartley speakers and we'd like to keep it that way.







# Lesser Known Systems.

Building great speakers is one thing. Building great speaker systems is another. The design objective of Hartley speaker systems is simple. Build systems that provide the most natural sound and the highest fidelity ever achieved in a loudspeaker system at any price. There are three features we add to our unique speakers to accomplish this objective.

The Concertmaster Series

### CONCERTMASTER V AND VI

The biggest Hartley systems. Built around these speakers:

24" Super-woofer 10" Midrange

7" Tweeter

1" Dome type Super-tweeter

Hand rubbed oiled walnut cabinets built in asymetrically matched pairs of the following dimensions:

Two cabinet designs available: Concertmaster V - plain front with a black grillcloth. Concertmaster VI - Mediterranean styled front with either black or gold grillcloth.

### CONCERTMASTER III AND IV

Full sized systems built around these speakers:

18" Super-woofer 10" Midrange

7" Tweeter

1" Dome type Super-tweeter

Hand rubbed oiled walnut cabinets built in asymetrically matched pairs of the following dimensions:

Two cabinet designs available: Concertmaster III - plain front with a black grillcloth. Concertmaster IV - Mediterranean styled front with either black or gold grillcloth.

The Cabinetry

For your eyes, only architectural grade walnut veneers are used. The finish is hand rubbed. The veneers are matched so that the top is the same as the sides. And the cabinets are built in pairs so your right speaker will match your left. For your ears, each cabinet is hand assembled using a maximum of wood screws and gluing for rigidity. And our right cabinet is different from our left. The speaker arrangement in a right cabinet should be a mirror image of the left, not the same. This asymetrical cabinet design is unique and means the best sound dispersion.

### The Sound Absorption

Each of our cabinets is lined with 3/4 of an inch of sonic absorption material and includes up to 90 square feet of a specially engineered blend of materials called the Hartley Soundsorber. This treatment totally eliminates the "boom" found in many conventional speaker systems.

### *The Cross-Over Network*

Each of our systems includes a cross-over network that maintains optimum control of bass, midrange and high frequency sound. The system is designed for speakers to run concurrently for one octave above and below the cross-over point. This eliminates the "hole" frequently found in conventional

### Two Series Of Professional Quality Systems

There are two series of Hartley speaker systems. The Concertmaster Series is designed for professional level audio performance where space and price are secondary considerations. The Concert Series is designed for the serious audiophile with limited space.

The Concert Series

### CONCERTMASTER JR. AND HOLTON A

A Series of medium sized systems built around the following Hartley speakers:

10" Coaxial Full Range Speaker 1" Dome type Tweeter

Hand rubbed oiled walnut cabinets built in asymetrically matched pairs in the following dimensions:

Two cabinet designs available: Concertmaster Jr. — Mediterranean styled front with gold grillcloth.

Holton A — Contemporary front with black grillcloth.

### HOLTON JR.

A high quality compact system built around the same speakers as the Concertmaster Jr. and Holton A.

The hand-rubbed oiled walnut cabinets are also built in asymetrically matched pairs but to the following compact dimensions:

### *The Warranty*

Most conventional high quality speakers are warranted for two or even three years. Every Hartley speaker is warranted for five years. Because we know how each one is built. In fact, we keep a file showing the frequency response performance of every individual speaker we make. That's why we'd like you to keep this brochure to yourself and not pass it on to a friend. You see, when you build only three speakers a day, you can be pretty sure how good each one is. We figure if we keep building them that way, someday we might be able to build four or even five a day.

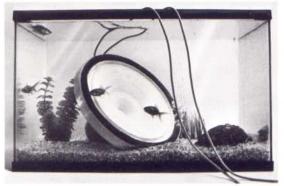


(left) Holton A (center) Holton Jr. (right) Concertmaster Jr.



High Power and the Woofer.

Many conventional speaker manufacturers have had to increase the power handling capabilities of their woofers because of today's high powered amplifiers. Again, hand building and engineering sophistication makes the Hartley solution unusual. First, we use parallel wound voice coils to lower impedance and increase efficiency. We use high temperature epoxies in the voice coils to handle temperatures up to 300° F. We reinforce our cone apexes for extra cone rigidity. And we incorporate two unique heat sink structures to dissipate heat. All this means our 18 and 24 inch super woofers are equipped to handle all the power you can put their way.



The All-polymer speaker cone. So impervious to moisture, it can be played underwater without damaging the cone.

# Little Known Speakers.

For the past twenty-five years, very special people have known about Hartley speakers. Musicians, engineers, recording technicians, scientists and other professionals who use sound for a living. And for the past twenty-five years the word has gotten around among people who simply make good sound an important part of their lives. Hartley speakers are among the best available anywhere in the world at any price. You don't sell a lot of speakers that way but you do avoid compromising your standards. It's been good for us, because we can still pay a lot of attention to every speaker we make. In fact we only make three speakers a day because each one requires about 50 hand operations to build. And that's before we get it into a cabinet.

There are some good solid reasons for speakers being built by hand. A speaker is a precision instrument with inherent design problems. Hand building allows unique solutions for these speaker design problems.

### The Magnet Structures (A)

Conventional speakers have ceramic type magnets. Fine for them. But conventional speakers don't have magnetic suspension. So we needed a more sophisticated magnet structure. Our smaller seven and ten inch speakers use a huge 6.1 pound Alcomax II magnet and our super woofer speakers a giant 14 pound magnet of Alcomax III.

### The Suspension (B)

The problem of getting a moving coil back to its starting position, after an electrical signal has driven it out, has challenged the minds of designers for years. Many types of acoustic and mechanical suspension systems have been developed. But they all had to be designed for mass production. And no device developed to date can match the performance of our patented MAGNETIC SUS-PENSION. At 10 cycles per second, conventional voice coils return to their neutral position in about 1/350 of a second. Hartley speakers with magnetic suspension can return in 1/1600 of a second. With the fastest restoring force available on any speakers, Hartley speakers provide a quality of transient response only equalled by a live performance.

#### The Voice Coil (C)

Again, innovative engineering and hand building make a difference. In our mid and full range speakers, our voice coil is actually two voice coils. They are physically isolated by a specially prepared compliance only 4 mils thick. The outer coil is made of copper and the inner of aluminum and the physical separation allows the inner aluminum coil to move independently at higher frequencies. Because the total coil is only one inch in diameter, our cones can be of maximum mass. The Hartley voice coil was patented in 1964 and because of its unique dual design it's the only voice coil that directs high and low frequency sounds to separate cone sections of the speaker.

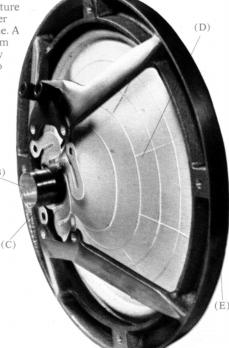
### The Cone (D)

Conventional speakers all use some form of paper for the cone. The problem with

paper is that it's not stable in terms of performance. It's affected by humidity and dryness. Did you ever notice how your newspaper feels on a rainy day? So our Chief Engineer spent years seeking out a new and different material having the lightness of paper, but with stability that would not change characteristics as the weather changed. In 1961, we patented the Allpolymer speaker cone. Hand built on a cloth base, this material is extremely durable and so impervious to moisture it can be played underwater without damage to the cone. A lot of speaker cones perform well under ideal laboratory conditions. Because it is so stable, the Hartley cone delivers natural sound all the time.

### The Speaker Frame (E)

Conventional speakers use steel for their speaker frames. It's strong and easy to make. It does have some unfortunate resonance qualities. But it's good enough for most mass produced speakers. When you only make three speakers a day, you don't have to compromise. Every Hartley magnetic suspension speaker utilizes a cast aluminum hand polished frame. Not because it's easy. Because it's best.



## Hartley Speaker Specifications

MODEL NO.	ТҮРЕ	DIAMETER	FREQUENCY RESPONSE Hz	IMPEDANCE	MAGNET SIZE		
DT-8	Dome Tweeter	1" (2.5 CM)	2,000-25,000	8 ohms	2.0 lbs.		
207 MSG	Tweeter/Midrange	7"(17.5 CM)	1,000-22,000	8 ohms	6.1 lbs.		
220 MSG	Full Range	10" (25 cm)	20-22,000	5-8 ohms	6.1 lbs.		
218 HS	Super-Woofer	18" (45 cm)	16-4,000	6-8 ohms	14 lbs.		
224 HS	Super-Woofer	24" (60 CM)	16-4,000	6-8 ohms	14 lbs.		

## Hartley Systems Specifications

Model	Speakers		OVERALL				Cabinet Size					
	DT-8207	NSC NSC 220 218	724 HS	FREQUENCY RESPONSE Hz	CROSS-OVER POINTS ±10%	IMPEDANCE OHMS	MIN. POWER REQUIRE- MENTS	HEIG	HT	H" DEPTH"	SHIPPING WT. (LBS.)	SHIPPING VOLUME (CU. FT.)
CONCERTMASTER SERIES					12 db/octave@							
Concertmaster V and VI	хх	X	X	16-25K	200 HZ 3000 HZ 7000 HZ	6-8	25 watts	401/2	29	18	150	15.5
Concertmaster III and IV	ΧX	x x		16-25K	200 Hz 3000 Hz 7000 Hz	6-8	25 watts	34	29	16	125	12.4
CONCERT SERIES					6 db/octave@	â						
Concertmaster Jr.	X	X		20-25K	2000 Hz 5000 Hz	5-8	15 watts	30	24	14	85	7.5
Holton A	X	X		20-25K	2000 Hz 5000 Hz	5-8	15 watts	30	24	14	85	7.5
Holton Jr.	Х	X		25-25K	2000 Hz 5000 Hz	5-8	15 watts	30	15	12	55	4.5

### HARTLEY PRODUCTS CORPORATION

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AUTHORIZED DEALER