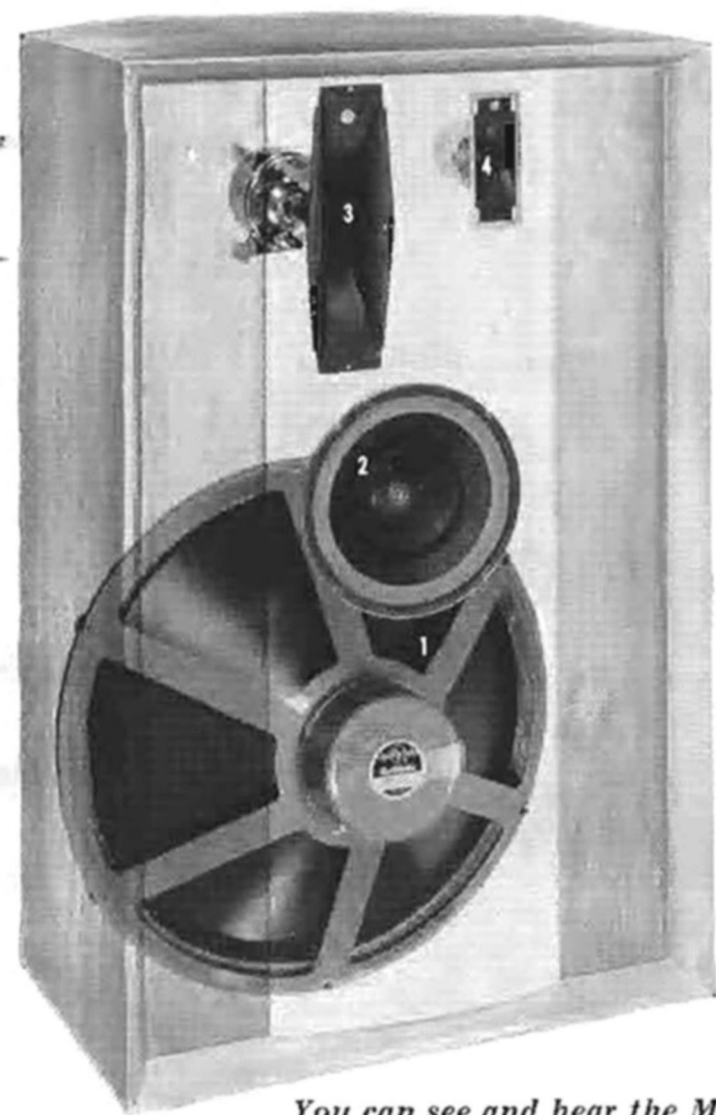


# ENGINEER'S MASTERPIECE

music lover's dream



The Patrician 700 is the most effective recreator of great music that has ever been made. And, while the exciting aspects of its physical design and performance are interesting to many, they should not and need not be misunderstood by those whose backgrounds lie in the creation and appreciation of music rather than in the means of reproducing it. For, if the Patrician 700 can reproduce with distinction the more esoteric sounds of earthquake, railroad train or thunderstorm, so can it recreate the sound of the big bass drum, the mighty pipe organ and the majestic sweep of the full symphony orchestra as can no other loudspeaker. It is for this reason that every music lover will be thrilled by the effortless ease with which the Patrician 700 handles large masses of sound, and the order it reveals in complex sonic tapestries—where lesser reproducers can present only chaos.

The world's greatest loudspeaker system is a fitting companion to the world's greatest music. Ownership of the Patrician 700 is an appropriate expression of devotion to the music you love.

Designed around the tremendous new Electro-Voice thirty-inch woofer, (1) the unparalleled might of the Patrician 700 in the region of deepest bass is a thing of fascination in itself, but this is only one facet of its truly fabulous overall performance. A premium quality 12" speaker, (2) heavily damped magnetically and mounted in a separate, liberally padded sub-enclosure, delivers solid and precise reproduction of midbass frequencies from 100 to 700 cps. The sound of the magnificent T250, (3) recently brought to a new height of excellence through closer specialization of its design to the requirements of the treble range, is outstandingly smooth, distortionless and free from peaks or unnatural colorations. The T350 very high frequency driver (4) adds a wonderful transparency to the clarity established in the midrange, maintaining its beautiful, shimmering sound undiminished to the limits of audibility, and having significant response as high as 40 kilocycles. In both the treble and high frequency ranges, E-V diffraction horns spread brilliance evenly over

the whole listening area, illuminating the finest musical detail through perfect accuracy of reproduction.

True audiophiles need not restrict their enjoyment of owning this remarkable instrument to the purchase of the complete system—they can build the enclosure themselves, buy the individual components separately, or experiment with the development of their own original system incorporating these components. A booklet thoroughly describing the Patrician 700 is available on request.

The cost of the Patrician 700 is a modest \$795.00. The components alone are \$485.00. Electro-Voice will gladly supply blueprints for the cabinet at \$2.00 per set. Write for fuller details on individual components.

**Electro-Voice**<sup>®</sup>  
Consumer Products Division  
ELECTRO-VOICE, INC.  
Dept. 2F, Buchanan, Michigan

You can see and hear the Magnificent Patrician 700 at any of these outstanding Audio Specialists.

## ARIZONA

Phoenix: Bruce's World of Sound, 2711 E. Indian School Road

## CALIFORNIA

Berkeley: Robert E. Lee, 2826 Telegraph Ave.  
Hollywood: Hollywood Electronics, 7460 Melrose Ave.  
Long Beach: Scott Audio Corp., 266 Alamilos Ave.  
Los Angeles: Crenshaw Hi-Fi Center, 107 Santa Barbara Plaza  
Los Angeles: Kierulff Sound Corp., 1015 South Figueroa  
Menlo Park: McDaniels Hi-Fi, Division of Santa Clara Properties 935 El Camino Real  
Pasadena: High Fidelity House, 536 South Fair Oaks Ave.  
Reseda: Delco Sound Systems, 18140 Sherman Way  
Riverside: Custom Music, 3890 Main Street  
San Diego: Wright's House of Hi-Fi, 5140 Cajon Blvd.  
San Jose: Aico-Paramount Electronic Corp., 79 South Third St.  
San Francisco: Lakeshore Hi-Fi, Inc., 222 W. Portal Ave.  
San Francisco: San Francisco Radio & Supply, 1284 Market St.  
San Francisco: Zack Radio Supply Co., 1422 Market St.  
Santa Ana: Lowenstein's, 1508 South Main Street  
Van Nuys: House of Sight and Sound, 14514 Victory

## COLORADO

Denver: Electric Accessories Company, 1620 Blake St.

## GEORGIA

Atlanta: High Fidelity SSS 608 Peachtree Street, NE

## ILLINOIS

Chicago: Allied Radio Corp., 100 North Western Ave.  
Chicago: Musicraft, 48 East Oak Street

## INDIANA

Evansville: George C. Mettle, Jr., 17 S.E. First  
Indianapolis: Graham Electronics, 122 South Senate  
South Bend: Hi-Fi House, 731 South Michigan

## KENTUCKY

Louisville: Hi-Fi Trading Post, 1024 South Third Street

## LOUISIANA

Baton Rouge: Ogden Park Record Shop, 618 N. Third St.

## MARYLAND

Baltimore: Henry O. Berman, 12 East Lombard

## MASSACHUSETTS

Boston: Radio Shack Corp., 730 Commonwealth Ave.

## MINNESOTA

Minneapolis: Lew Bonn Company, 1211 LaSalle Ave.

## MISSOURI

St. Louis: Van Sickles Radio Company, 1113 Pine

## NEBRASKA

Omaha: House of Hi-Fi, 7001 Dodge Street

## NEW MEXICO

Albuquerque: Sound Equip. Co., 3011 Monte Vista, NE

## NEW YORK

Buffalo: Buffalo Audio Center, 161 Genessee Street  
New York: Hudson Radio & TV Corp., 212 Fulton Street  
New York: Leonard Radio, 69 Corlandt Street  
Schenectady: General Products Co., 2203 Webster Dr.

## NORTH DAKOTA

Fargo: Wolter Electronics, 402 North "P" Avenue

## OHIO

Dayton: Custom Electronics, Inc., 1916 South Brown St.  
Toledo: Jamieson's High Fidelity Specialists, 3417 Dorr St.

## OREGON

Medford: Stereo Sound, 711 East Jackson Blvd.  
Portland: Meier & Frank Co., 621 S.W. Fifth Ave.

## PENNSYLVANIA

Philadelphia: Radio Electric Company, 709 Arch St.  
Reading: George D. Barbey Co., Second and Penn Sts.

## TEXAS

El Paso: Midland Specialty Co., 500 West Paisano Drive  
Fort Worth: Audio Associates, 4802 Camp Bowie Blvd.  
Houston: Houston High Fidelity, 3727 Westheimer  
Houston: Wrye Company, Ltd., 2410 West Alabama  
San Antonio: Vandergriff Audio Co., 4106 San Pedro

## UTAH

Salt Lake City: O'Loughlins' Radio Supply, 133 E. Third St., South

## WASHINGTON

Seattle: Audio Sales, 2405 Broadway

## WISCONSIN

Milwaukee: Jax Hi-Fi House, Inc., 523 E. Silver Springs Dr.

## CANADA

Toronto: Electro-Voice Sound Systems, 126 Dundas St., W.  
Montreal: Payette Radio, Ltd., 730 St. James St., W.

### **ELECTRO-VOICE PATRICIAN 700 AND STEREON 200 LOUDSPEAKERS**

In this day of stereo, all but the extreme purists have almost deserted the good *large* loudspeaker in favor of the good *small* loudspeaker, but there are still some who feel that the larger a *good* loudspeaker enclosure is, the better it is likely to be. With the exception of a few special cabinet designs which make it possible to employ one loudspeaker cabinet for both channels of a stereo speaker system, two are almost universally required, and the size and decor of many living rooms rules out two large loudspeaker systems.

It is generally agreed, however, that two-, three-, or four-way loudspeaker *systems*, even for monophonic use, are better than a single loudspeaker mechanism because of the channelling of smaller portions of the audio spectrum to speakers which are designed especially for the frequency range they are required to handle. When a single mechanism must handle the full nine octaves of the audio spectrum, some compromises have to be made. Good low-frequency reproduction demands that a large amount of air must be set into motion, but a large cone is heavy and can not be moved effectively at the very high frequencies.

In the Electro-Voice Patrician 700, for example, the frequency spectrum is broken up into four bands. The range below 100 cps is handled—but well—by a 30-in. cone speaker employing a 9¼-lb. magnet. The 2½-in. voice coil is wound with 26-ga. copper wire for low resistance, and the cone itself is made of polystyrene foam and supported around the edge by a polyurethane foam surround. Its resonant frequency is

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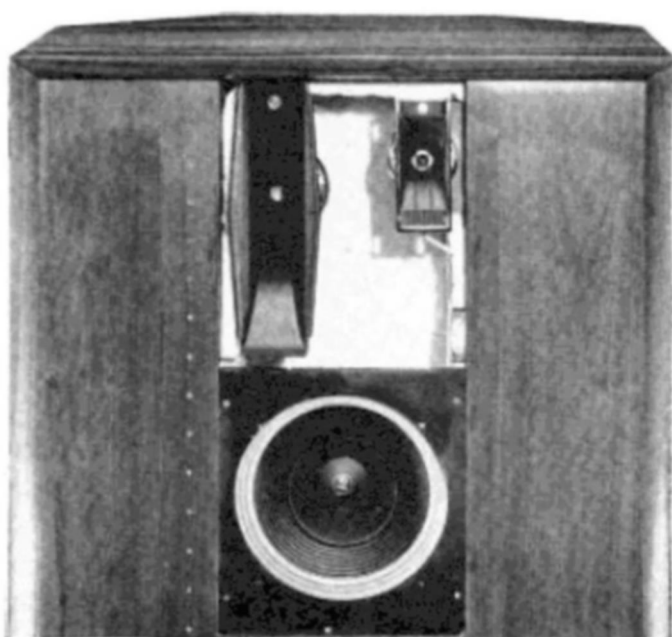


Fig. 5 (left). The Electro-Voice Patrician 700 is a typical setting. Fig. 6 (above). View of the upper portion of the front with the grille removed.

around 20 cps, and it is capable of handling 35 watts continuously at any frequency above 40 cps with less than 2 per cent distortion. This speaker radiates into the corner from the rear of the cabinet and thence around the sides as a large horn.

The mid-bass region from 100 to 700 cps is handled by a 12-in. Radax SP-12 cone unit having a 3-lb. magnet and a 2½-in. voice coil which is edgewise wound with aluminum ribbon. The range from 700 to 3500 cps is handled by a T250 driver unit on an 8HD horn, which is the larger of the two horns seen in Fig. 6 above the cone unit. The range above 3500 cps is carried by a T350 super-tweeter (driver and horn)—the smaller of the two in Fig. 6. The voice coil of this unit is 1 in. in diameter and is wound with silver-plated 38-ga. aluminum wire and operates in a magnetic field of 19,000 gauss.

The complete Patrician 700, shown in Fig. 5, is not small by any means—obviously any enclosure which can accommodate a 30-in. cone speaker must be large. But the performance is also "big." The cabinet itself measures xx in. high, xx in. across the front, and xx in. from front to back. The rear corners are cut off, and the cabinet is intended to be positioned in a corner with the cutoff corners 6 in. from the walls. Thus the front is xx in. from the actual corner of the room, measured on the line bisecting the corner.

The left "cutoff" is equipped with the connection and control panel shown in Fig. 7. Two terminals accept the input leads, and another two give access directly to the woofer, while the remaining six connect the three other channels to their respective cross-over networks. This arrangement makes it possible to gain access to the woofer for arrangements in which the very low range of both channels is carried by one 30-in. cone, while the remainder of the spectrum is carried by the three smaller speakers in the Patrician 700 for one channel, and by another speaker for the second channel. The Stereon 200 is designed especially for this purpose, and consists of the same components as the Patrician 700 except for the woofer, with a consequent reduction in size. The Stereon 200 is still not

"small" for it measures 17 in. wide, 30 in. high, and 16½ in. deep. Thus two Stereon 200's, for example, could flank a larger cabinet in the general form of a break-front which contained a 30-in. woofer in a modified theatre-type "bathtub" horn. The principal use to which the smaller units are put, however, is as a second speaker with one Patrician. A more elaborate system suggested by Electro-Voice consists of two Patricians on the two channels and a Stereon 200 as a derived center-channel speaker between them. Still another possibility employs two Stereons with one Patrician in the center. The ultimate would be, we suppose, to use three Patrician 700's.

#### Performance

Since we at *AUDIO* feel that it is practically impossible to offer absolute response curves on any loudspeaker—(1) we do not have an anechoic chamber, and (2) if we did we do not feel that many of our readers would be listening to loudspeakers in anechoic chambers—we must resort to subjective analyses of loudspeakers. We can only say that the Patrician 700 is far too impressive to be acceptable in the average living room except for those who may feel that living consists of hearing good sound. We have had the pleasure of living with a Patrician for the last two months and we feel that—even under limited-volume conditions—there is considerably more to be had from a Patrician 700 than from any other loudspeaker to which we have ever listened. There is a solidity to the bass that is not approached by any other loudspeaker system on the market, and that is, we believe, due to the massive 30-in. woofer. This is largely due to the fact that a 30-in. loudspeaker cone just barely moves to put out an adequate sound level, while the 15-in. cone, for example, has to move nearly four times as much for the same output. Actual figures for the same sound output show a movement of .09 in. for the 30-in. cone will give an acoustic output of one-fourth acoustic watt, while a movement of 0.3 in. is required for the same output from a 15-in. cone, 0.48 in. for a 12-in. cone, and more than 1 in. for a 10-in. cone. Similarly, when it comes to that intangible frequency modulation distortion caused by the movement of the low-frequency cone which also reproduces high frequencies, the 12-in. woofer will produce 7.5 times as much as the 30-in. cone.

We have been accustomed to living with high-quality loudspeakers—one employs a 15-in. woofer and another has two 12-in.

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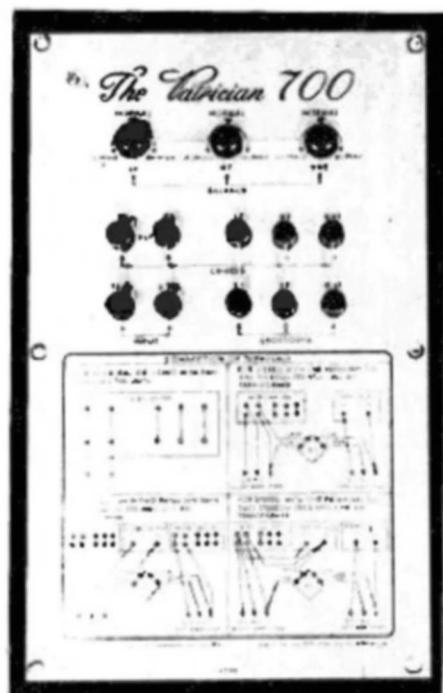


Fig. 7. Terminal board of the Patrician 700 showing flexibility of connections and control.



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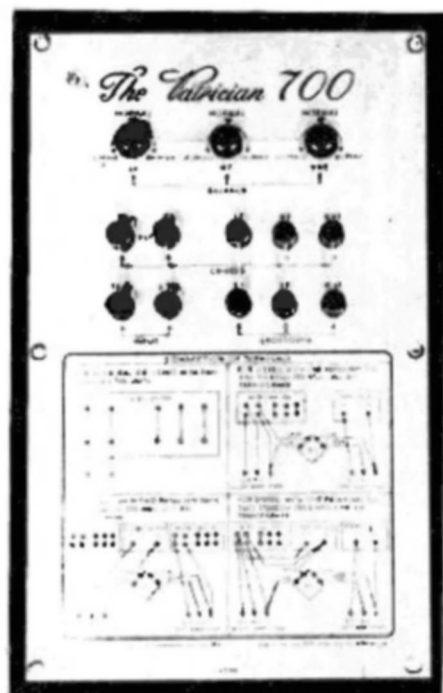


Fig. 7. Terminal board of the Patrician 700 showing flexibility of connections and control.

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throughout the spectrum, we found that we could hear up to 20,000 cps, even though we had previously felt that we couldn't hear above 13,500. We can only attribute this to the efficiency of the T350, since we heard everything up to 20,000 readily. We heard no doubling down to 20 cps on the Patrician. Reproduction throughout was smooth and crisp, yet with the sensation of tremendous power in the lower registers.

A few hours listening to the Patrician and one wants to start looking for a larger home—this is the sound that this reviewer would enjoy living with continuously—a fine large loudspeaker. A-21

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## EQUIPMENT PROFILE

(from page 40)

cones, with separate high-frequency speakers to cover the ranges above a maximum of 800 cps—but we must admit that we were amazed at the output below 100 cps that was available from the Patrician 700. On organ music, which is where the extreme low power becomes especially important, the over-all feeling was just about as though one were actually in the organ loft, and that is an experience any sound enthusiast should go through some time. Among other selections, we heard a HiFi-Tape of Richard Purvis playing the Toccata from Widor's Fifth Symphony. On the Patrician, this becomes an emotional experience—on anything else it leaves a lot to be desired after one had heard it on the Patrician.

Two of these loudspeakers would make a perfect combination for a church that had to get along with an electronic organ. One of the problems of electronic organs is the reproduction of the very low frequencies, and in order to get over the feel of a genuine pipe organ, it is necessary to use a bank of smaller speakers or a single large one, and there is no denying the ability of a large cone to reproduce the extreme low notes—even at low volumes—with a realism that is astounding.

For those conditions where two Patrician 700's are not practicable, and yet a stereo installation of quality is desired, a single Patrician 700 may be used with a Stereon 200, carrying the material of both channels below 100 cps through the Patrician with the aid of an XP-1 isolation transformer. Above 100 cps the two units are electrically identical, and the performances of the two blend together well. On listening to tones