



THIEL

Model
PowerPoint™
Coherent
Source®
surface-mount
loudspeaker
system

THE PERFECT
VISION


2001
Editors' Choice
Award

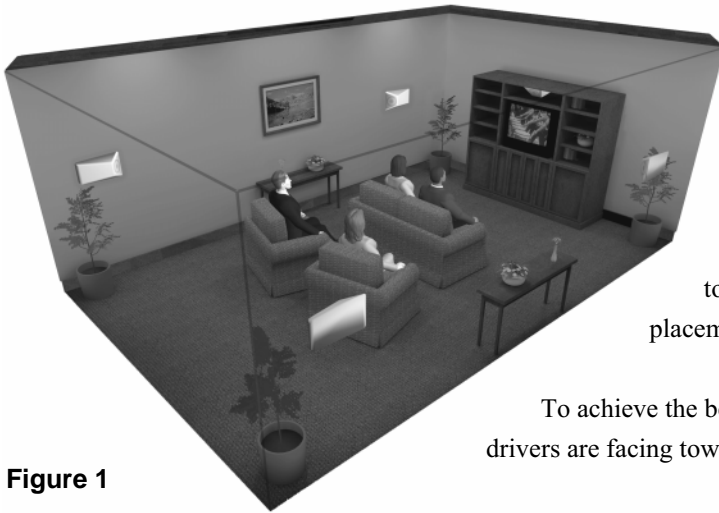
HOME AUTOMATION
MAGAZINE

“Editor’s Pick”
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OWNER INFORMATION

Congratulations on your purchase of the THIEL PowerPoint™ surface-mount loudspeaker. This fine product is the result of a dedicated effort to provide very accurate and realistic sound reproduction. We have used very high quality components and taken great care in the PowerPoint's construction. Properly set up and used with good associated equipment, the PowerPoint will provide you with a great deal of sonic enjoyment for many years.


Jim Thiel



SPEAKER PLACEMENT

The PowerPoint can be placed in a wide variety of locations throughout the room. It can be mounted on side walls, ceilings, rear walls, under shelves—on almost any flat surface. The speaker's wedge shaped cabinet and coaxial driver mounting allow the PowerPoint to optimize the coverage area for a variety of speaker placements and listener positions.

To achieve the best sonic results, the cabinet should be oriented so that the drivers are facing toward the center of the room. For example:

Figure 1



Figure 2

- Used as a front right and left pair or rear right and left pair mounted to the side walls (**fig.1**), ideally the speakers should be mounted horizontally, around ear height, with the drivers radiating into the room. A center channel speaker can be mounted under a shelf of an entertainment center, radiating toward the center of the room and the primary listening position.

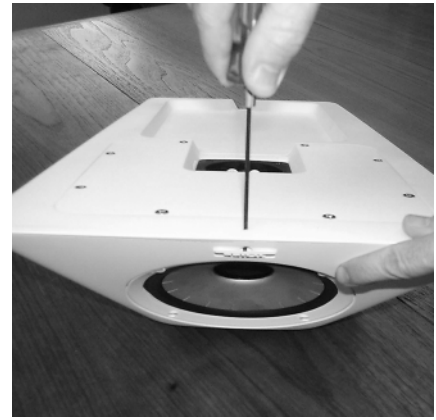


Figure 3

- Used as a front right and left, rear right and left, or center channel speaker, the PowerPoint can be mounted on the ceiling (**fig. 2**), with all of the speakers radiating toward the center of the room.
- For rear channel use when the listening position is near or against the rear wall (**fig. 3**), the PowerPoint can be mounted vertically on the rear side wall, radiating down.

SURFACE MOUNTING INSTRUCTIONS

It is important that the PowerPoint be mounted securely to prevent unwanted vibration. The PowerPoint is secured to its mounting surface with three screws, two located along the rear edge of the cabinet, and one in the front located under the THIEL logo. The logo is attached with removable adhesive and is removed by pushing it from the speaker by inserting a small phillips screwdriver, or something similar, through the cabinet's mounting hole (see photo). A mounting template is included with the speaker to assist in accurately positioning the mounting holes in the wall or other mounting surface. It is important that these holes be positioned very accurately so that the screw holes in the cabinet align properly with the holes in the wall.



Removing the logo

Tape the template to the wall in the desired position. Drill the three holes in the positions marked on the template with a $\frac{1}{16}$ " drill bit to a depth of 2 inches. Any holes in which a wall stud is encountered (where material is continued to be drilled beyond a depth of approximately $\frac{1}{2}$ ") should be left as-is and the included #6 mounting screws should be used for these holes. Any holes which are through only dry wall (where the drill "falls through" after the first $\frac{1}{2}$ " of depth) should be enlarged to $\frac{1}{4}$ " with another drill bit and the included molly bolts should be used for these holes. To install the molly bolts, insert the molly bolt into the wall and tighten the screw until the molly is secure with its flange tight against the wall. Then remove the molly bolt screw.

Connect the speaker wires to the speaker, position the speaker in place and drive the three screws through the cabinet's holes and into the wall, using the appropriate type of screw for each hole (either a wood screw or a molly bolt). Replace the logo by pressing it into the recess in the front of the speaker.

CONNECTING THE SPEAKERS

Speaker wire can be routed through a drilled opening in the mounting surface for a hidden connection or can be routed through the optional wire exit located at the rear of the cabinet. The PowerPoint uses 5-way binding posts which accept several types of speaker cable termination. *Make sure that all connections are tight.*

It is essential for proper performance that both speakers in a stereo system be wired in the same polarity. The speaker's input terminals are color coded to facilitate this. The wire connected to the red ringed input terminal of each speaker should connect to the respective positive (+) output terminals of the amplifier; the wire connected to the black ringed input terminals should be connected to the respective negative (-) output terminals of the amplifier. The speakers should be connected to the amplifier with high quality cable to ensure minimal loss of power and proper control by the amplifier.

Due to European CE regulations that do not permit banana plug type loudspeaker connections, we ship THIEL speakers with removable plugs installed in the ends of the binding posts. If you wish to use banana plug type connections, you may remove the black plastic plug inserted into the end of each metal binding post cap. To remove the plug, use your fingernail to pry along the bottom edge of the plastic insert and lift out.

BREAK-IN

The PowerPoint, like most speakers, requires a period of playing before they perform optimally. The time depends on how loudly the speakers are played; more time is required if played softly, less if played loudly. At least 50 hours at moderately loud levels are required before the speaker is performing near optimum.

ASSOCIATED EQUIPMENT

The PowerPoint is a very high quality sound reproducer and will benefit from use with high quality associated equipment. Since it is extremely accurate, it will reveal sources of distortion generated elsewhere in the system. For example, distortion resulting from poor recordings or inferior electronics will be reproduced accurately.

POWER REQUIREMENTS

It is important to have enough power to play at the level you desire without distortion. If high sound levels are desired, the PowerPoint's are designed to be used with amplifiers rated up to 200 watts per channel (into 8 ohms). If you play the speakers more loudly than the volume the amplifier can cleanly produce, the amplifier will produce overload (clipping) distortion. The sound will become compressed, strained, and in extreme cases, obviously distorted. This distortion is actually non-musical *additional energy* and since it is concentrated in the high frequency region where the speaker is least able to handle it, tweeters can be damaged in extreme cases.

Keep in mind that sound *quality* is usually much more important than sound *quantity*. There can be large differences in the sonic performance of two amplifiers of equal power, and this is more important than large differences in power. Most everyone will be happier with a 100 watt amplifier of high sonic quality than a 200 watt amplifier of mediocre sonic quality. For this reason, we feel there is no substitute for listening in making your amplifier decision.

The question "how much power do I need?" does not have the simple answer most people expect because it is not determined only by the loudspeaker's efficiency, but also by the volume desired and the size of the room. If all three factors are average, about 100 watts per channel is required. Each factor can raise or lower this amount by about three times.

1) Usually, people who "don't like music loud" can decrease their power to about one-half. Also, people who like music loud should increase their power by 2 times or more. Most people fall within a normal range.

2) A speaker with a low efficiency of 84 dB/W-m will require twice the power of an average 87 dB/W-m speaker and one with a high rating of 90 dB/W-m will require only half the power of an average speaker. Usually, high efficiency can be obtained only by trading off sonic quality—there are very few speakers that provide a very high level of both. The PowerPoint is of above average efficiency (89 dB) and therefore requires less than an average amount of power for average volume levels.

3) A small room will need less power for a given loudness level than a large room. A very small room of 1000 cu ft (11' x 11' with an 8' ceiling) will require about half the power of an average size room. A large room of 6000 cu ft (20' x 30' with a 10' ceiling) will require twice the average power. If the listening room is connected to another room by a large open area, the required power will increase, but not by the amount of the combined room volume. If the room has a "dropped" ceiling with light panels, the ceiling will be almost transparent acoustically and the space above the ceiling should be added. If the panels are heavy they will act as a more normal ceiling.

With all this in mind, a person who doesn't like to play music very loudly and has a small room can get quality sound with the PowerPoint with as little as 30 watts whereas a person who sometimes likes to play loudly and has a large room may need 200 watts or more.

GRILLE

The PowerPoint's grille is magnetically attached to the cabinet and can be removed by gently prying the grille forward and away from the cabinet.

PAINTING THE CABINET

The PowerPoint is shipped with an off-white finish. The speaker can be painted any desired color. To paint the speaker, first remove the grille and insert the included painting mask to protect the driver. The rim of the mask is tucked between the black rubber woofer surround and the white plastic rim of the cabinet's driver opening. Also, peel the cloth from the back of the grille before painting its front surface. After the paint is dry, reinstall the grille's rear cloth and the grille onto the cabinet.

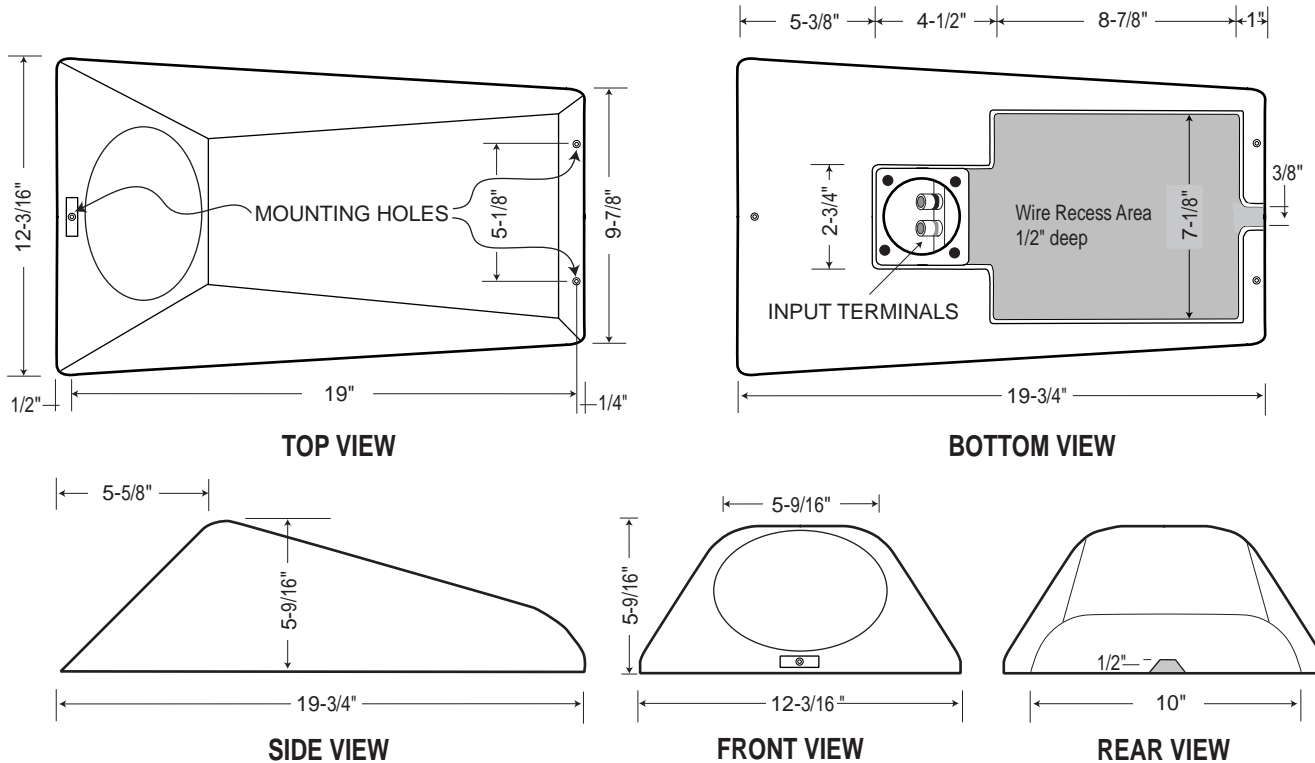


Painting mask installed

SERVICE

If your speaker system requires service, contact your authorized THIEL dealer. If you need to contact THIEL, service information and technical support is available at (606) 254-9427, Monday-Friday, 8:30 a.m. - 5:00 p.m. Eastern Time, or via e-mail at service@thielaudio.com.

POWERPOINT CABINET SPECIFICATIONS

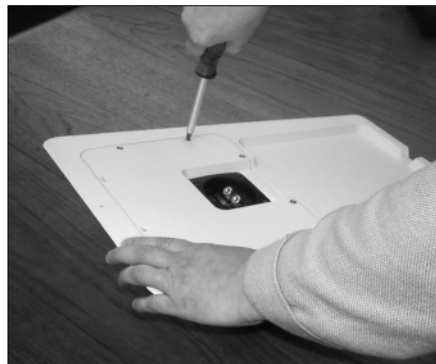


REPLACING THE COAXIAL DRIVER OR TWEETER MODULE

In the unlikely event that your PowerPoint loudspeaker requires service, access to the interior of the cabinet is through a removable panel on the back of the cabinet for user-type repairs. The tweeter module can be replaced separately without opening the cabinet.



To replace just the tweeter module, bend the end of small paper clip and hook it under the module's protective screen. While applying pressure against the screen with two fingers, slowly pull the module out. When installing the new tweeter, position it so that both module pins are placed in the two socket holes of the magnet system. Make sure that the pin marked with a red dot is inserted into the red marked hole. After the new module is inserted, push hard on the screen with some lateral force in all directions to insure that the tweeter is firmly seated and sealed.



Replace the coaxial driver by removing the rear cabinet panel by unscrewing and removing the 8 phillips head screws and carefully pulling the panel away from the cabinet, laying the panel on its back next to the opening so that the internal wiring is not overextended.



Remove the driver by unscrewing the 4 hex mounting screws and pulling the driver out through the panel opening. The coaxial is wired with a twisted pair for the tweeter and a pair for the woofer. Desolder the two wire pairs from the old coaxial and resolder them to the new driver making sure that the wire pairs are reconnected to the correct terminals. Solder the white lead wires to the red marked driver terminals and the black wires to the other terminals. Install the new coaxial and reposition the internal insulation as before.

THIEL POWERPOINT SPECIFICATIONS

Amplitude Response	75 Hz-20 kHz ± 3 dB
Phase Response	Minimum $\pm 10^\circ$
Sensitivity	89 dB@2.8 V-1m
Impedance	4 ohms (3 ohms minimum)
Recommended Power	30-200 watts
Size	12.25 " W x 5.5" D x 19.75" L
Weight	10 pounds

LIMITED 10 YEAR WARRANTY

THIEL warrants every THIEL PowerPoint system against defects in materials and workmanship to the original owner for a period of ten years from the date of purchase. THIEL will, at no charge, replace any defective part and make any repairs necessary to ensure its proper performance when the defective unit is returned to us postpaid.

This warranty does not cover damage due to accident or abuse and is void if the unit has been tampered with.

This warranty is automatic and no registration is required. This warranty gives you specific legal rights. You may also have other rights which are particular to your state.

The following information is for your records.

Serial Numbers _____

Purchase Date _____

Purchased From _____



THIEL

1026 Nandino Boulevard
Lexington, Kentucky 40511-1207

Telephone: 859-254-9427 • E-mail: mail@thielaudio.com • Web: www.thielaudio.com