Electrostatic Speakers

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What Is It?

Alternative speaker design that is more efficient and space-saving in comparison to a traditional cone speaker.
How It Works

- A nonconductive diaphragm is placed between 2 capacitive plates that are oppositely charged.
- When the diaphragm is negatively charged, it moves towards the positively charged plate.
- Vice versa when the diaphragm is positively charged.
Electrostatic Principles

- Capacitance stores a constant polarization charge on the diaphragm
- *Electrostatic Force* pushes and pulls the diaphragm to create the sound waves
- Alternating audio signal fed down transmission line that changes charge on high voltage, capacitive plates called stators
Major Design Differences

- No heavy cones to limit frequencies and less distortion
- Lightweight design from thin large coated diaphragm
- Diaphragm moves between 2 stators
- Dampening material behind to reduce the resonance
- Acts as a line source, not a point source
References

• www.soundlab-speakers.com
• www.howstuffworks.com
• www.beststuff.com
• mark.rehorst.com/ESLs