



SNS COLLEGE OF TECHNOLOGY
An Autonomous Institution
Coimbatore-35



Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

IIYEAR/ III SEMESTER

19ECT201 Electrical Engineering and Instrumentation

**TOPIC -VARIABLE CAPACITIVE TRANSDUCER-
CAPACITOR MICROPHONE**



CAPACITOR MICROPHONE



Sometimes called capacitor microphone

As the name implies, the condenser microphone or capacitor microphone uses a capacitance that varies in line with the incoming signal to generate the varying output voltage.

The name condenser microphone still persists.

The microphone was invented in the days when capacitors were still called condensers.

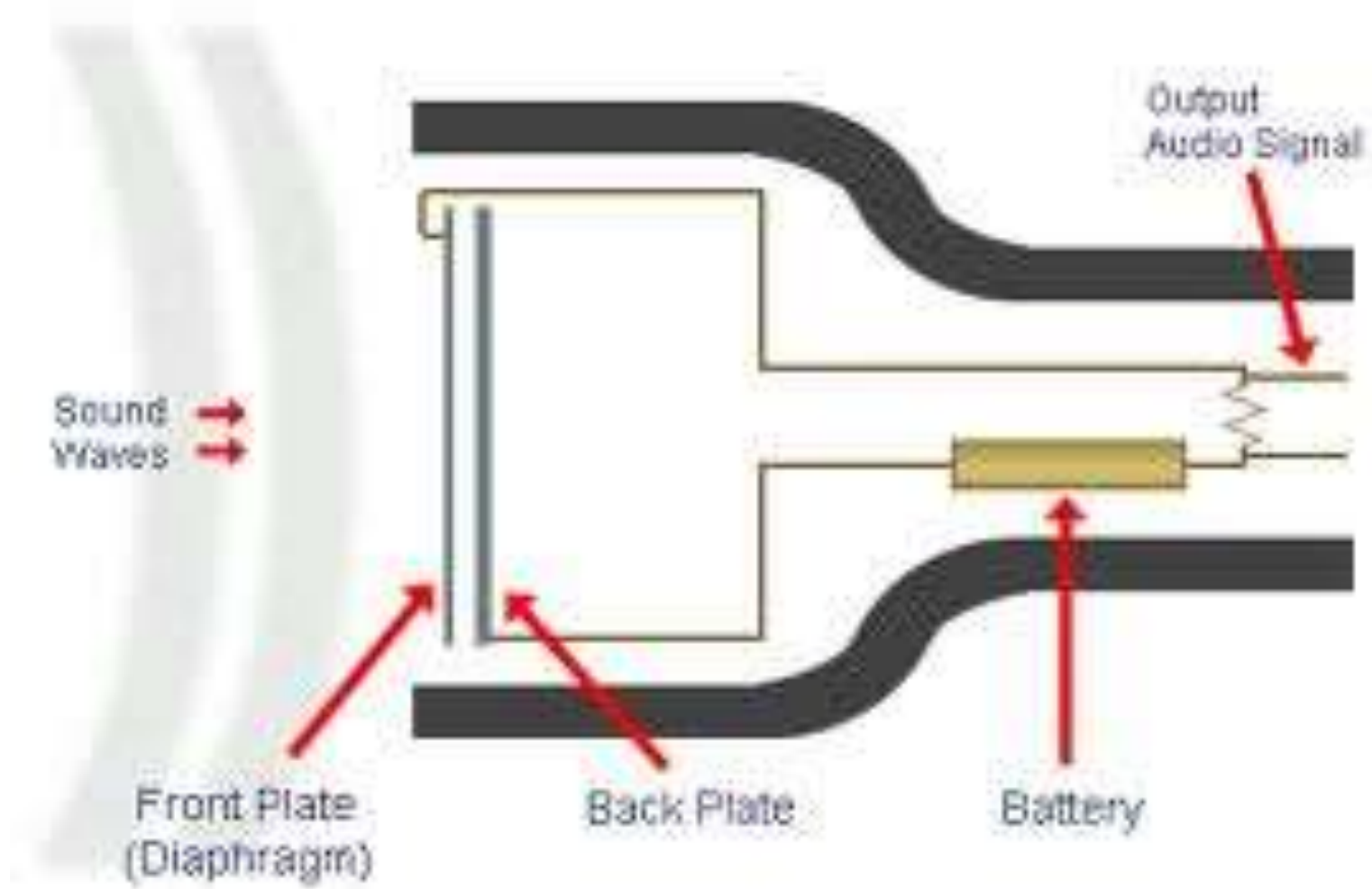
2 parts: conductive diaphragm and metal backplate, spaced very close together

Both charged with static electricity

When sound waves strike diaphragm, it vibrates it alters the spacing between the diaphragm and the back plate, which creates an electrical signal corresponding to the sound.

Diaphragm mass is lower, responds faster to rapidly changing sound waves (transients)

Condenser mics need external power





Advantages:

Wide, smooth frequency response

Detailed sound, Extended Highs

Omni type has excellent low-frequency response

Transient attacks sharp and clear

Can be miniaturized

Application:

Preferred for cymbals, studio vocals, acoustic guitar, stringed instruments