#### Microphones How they work...

### Microphone Architecture

#### Diaphragm

Transducer

#### Casing

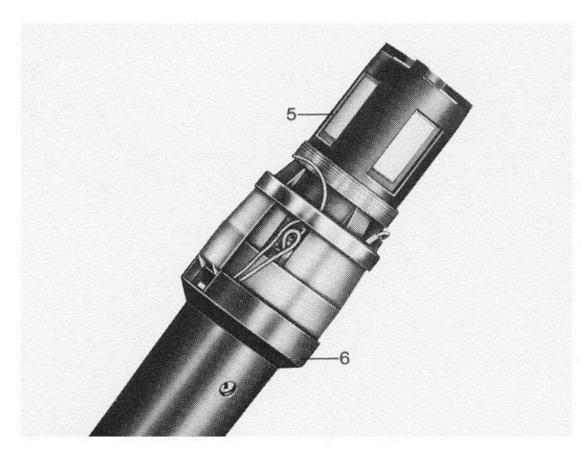
# Microphone Diaphragm

• Picks up sound vibration from the air



#### Microphone Transducer

• Converts vibration of diaphragm into an electronic signal



### Microphone Casing

• Houses microphone components and helps control directional response



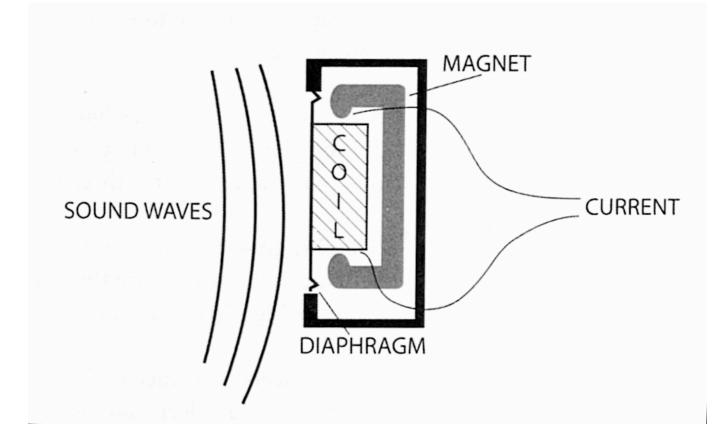
# Microphone Types

• Dynamic

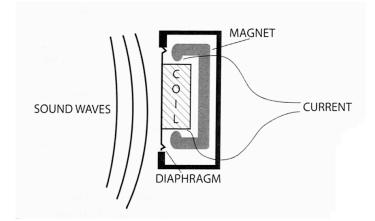
Ribbon

Condenser

## Dynamic Microphone

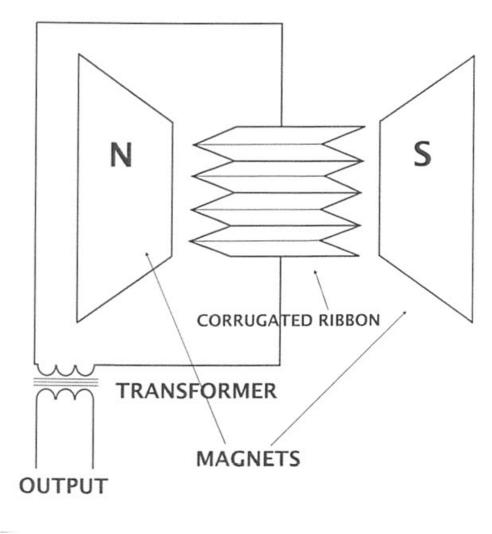


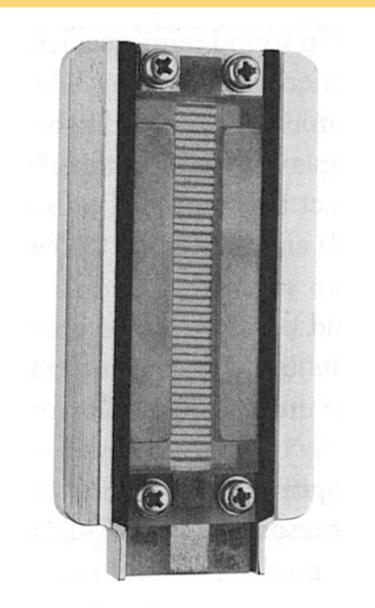
### Dynamic Microphone



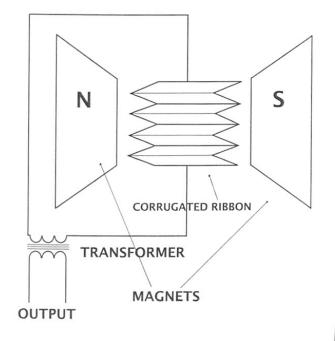


#### **Ribbon Microphone**



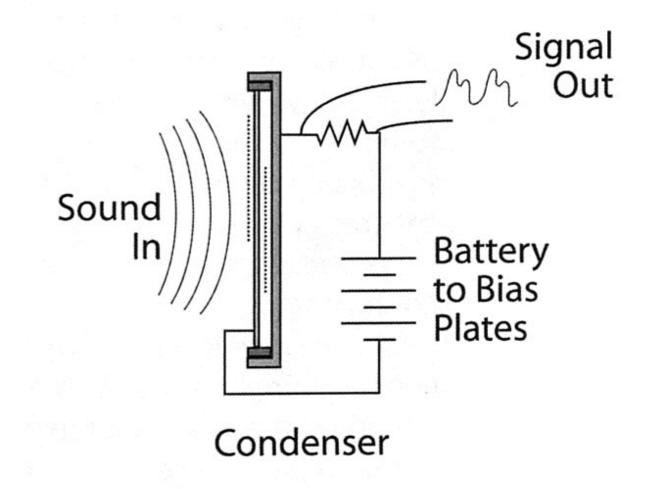


#### Ribbon Microphone

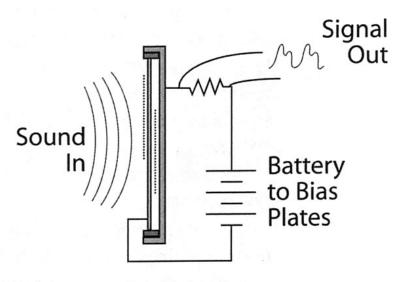




#### Condenser Microphone



#### **Condenser Microphone**



Condenser



## Microphone Pickup Patterns

#### • Omni

• Figure 8

Cardioid

• Hypercardioid

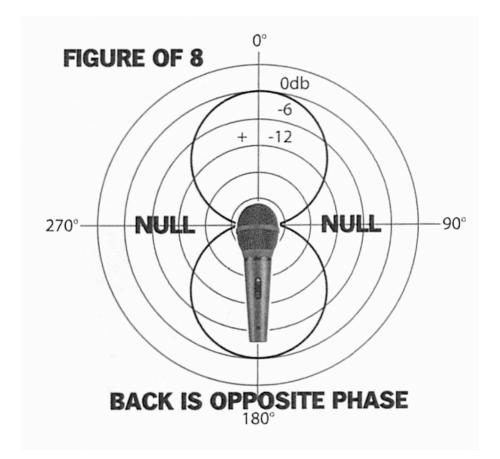
#### Omni Pickup Pattern

#### • 360° Pickup Field



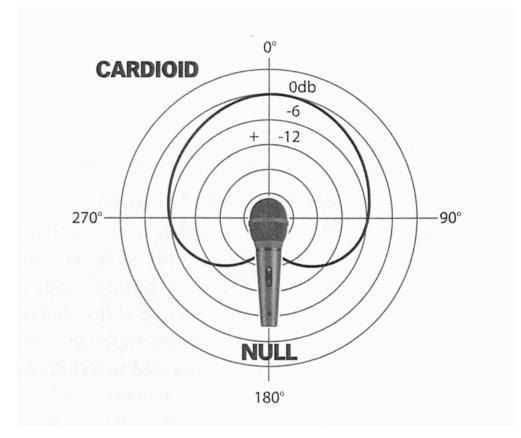
## Figure 8 Pickup Pattern

• Opposing null points



#### Cardioid Pickup Pattern

#### Broad frontal pattern



# Hypercardioid Pattern

#### • Narrow frontal pattern

