

# Restricted Microphones

1. Care and Safety
2. Microphone Types
3. Accessories
4. Quiz

## Make it Last:

**Don't drop a microphone!** Inside, a tiny, 2-5 micron thin piece of gold foil is stretched to form a membrane. This is easily damaged.

**Don't submerge a microphone**, it's not a hydrophone! Also, avoid getting **any** moisture in/onto a mic.

**Don't blow into a mic** to check if it's working! That little gold membrane is easily moistened from your breath and will become noisy and sound coloured.

**Avoid dusty environments.** Dust has a similar effect on the membrane.

**Avoid extreme heat.** Leaving the mic on the dashboard of a car in the summer will probably melt the membrane, leaving the mic useless.

## Dynamic



- Does NOT require power
- More durable
- Less sensitive

## Condensor



- Requires power
- Delicate
- High resolution
- Very sensitive

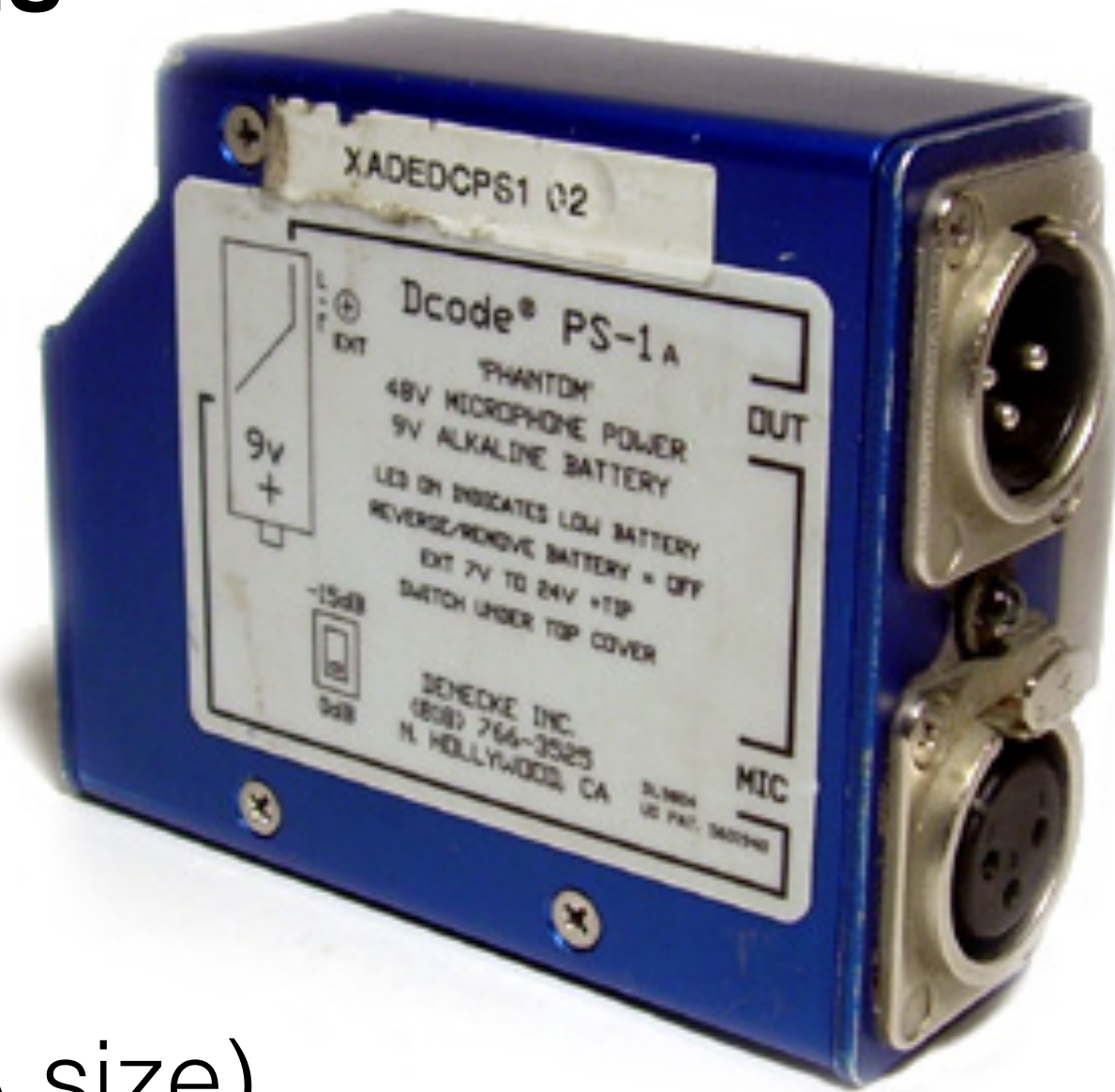


## Mic Powering Options

- **Phantom Power** (P48) 48 volts
  - From a mixer or recorder
  - 9-volt power supply

or . . .

- **Battery** located inside the mic (usually AA size)



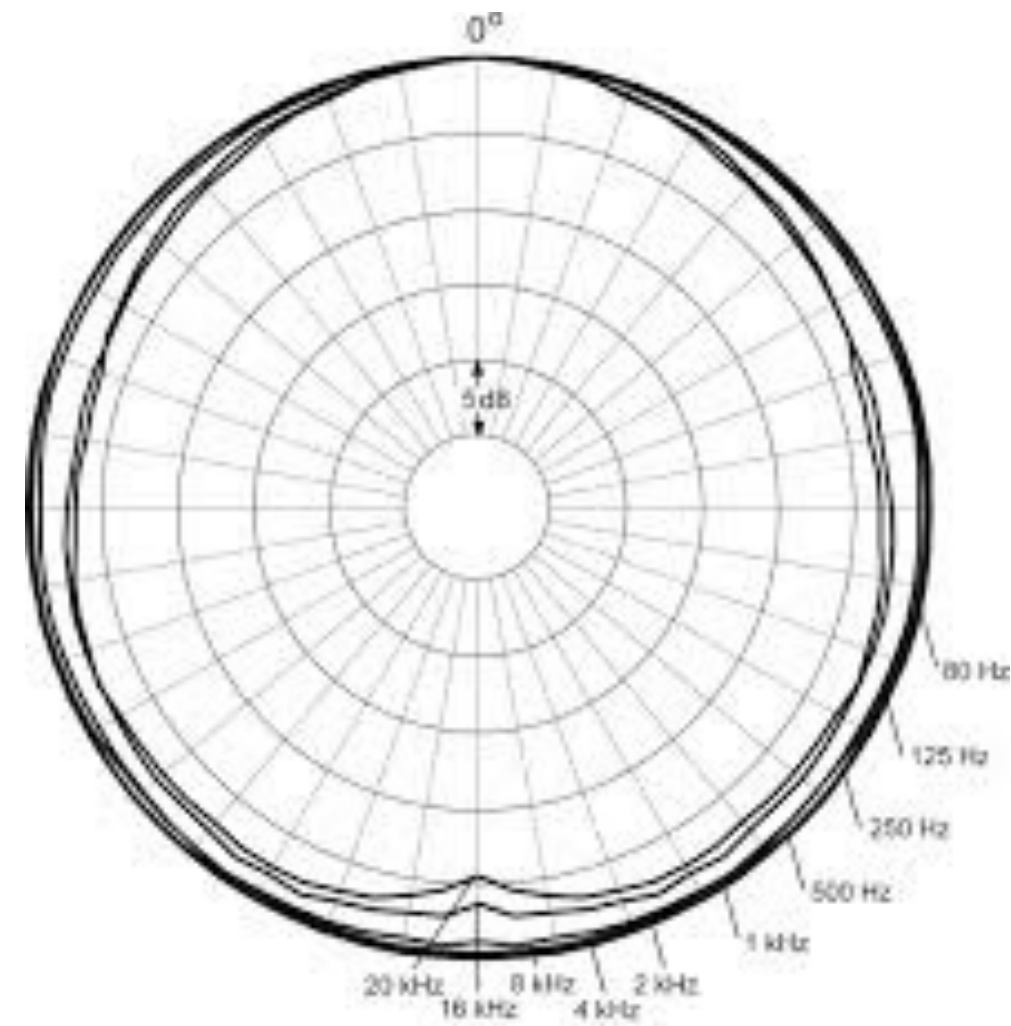
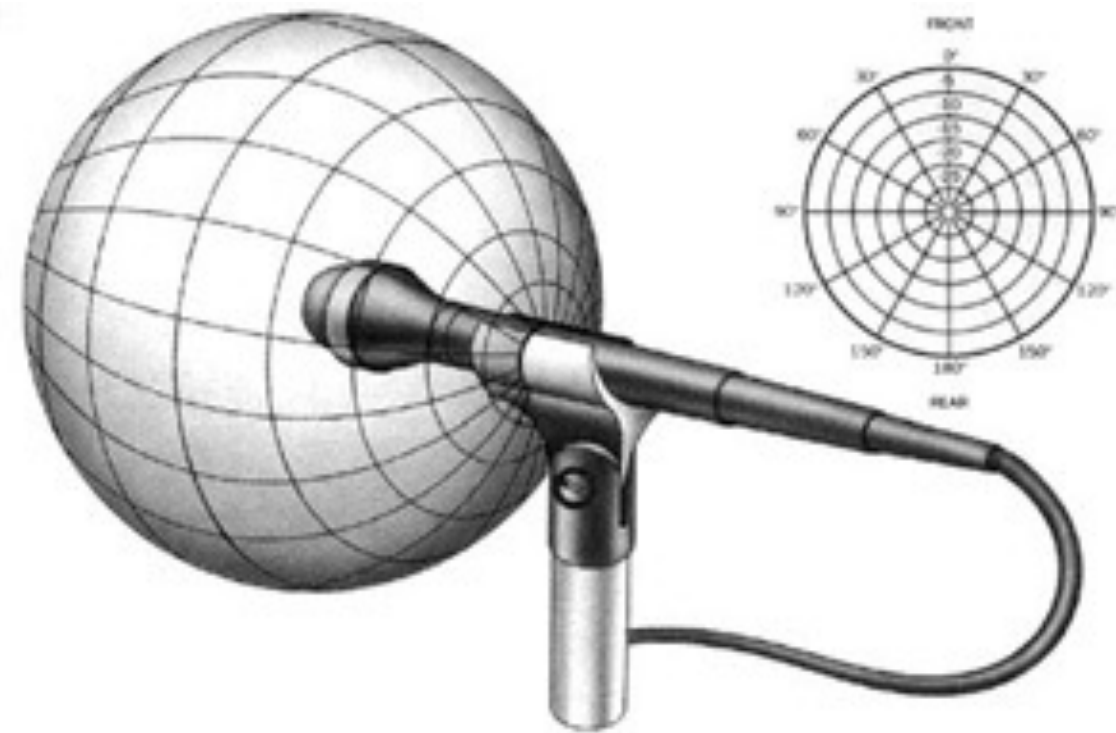
*\*By far the preferred method of powering is Phantom power. Unless using Lithium-ion, **batteries degrade the sound** as they loose power.*



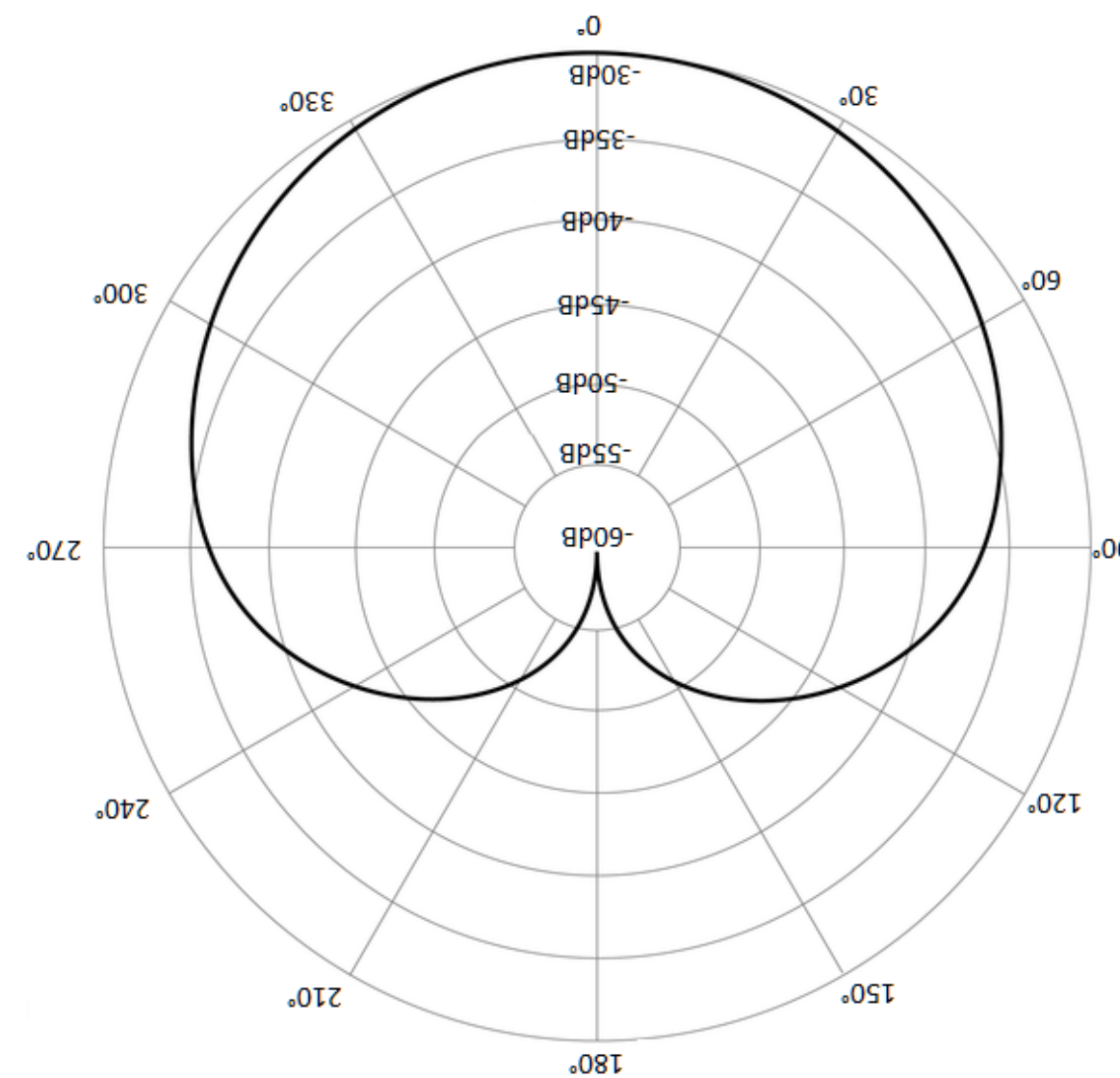


# Mic Polar Patterns

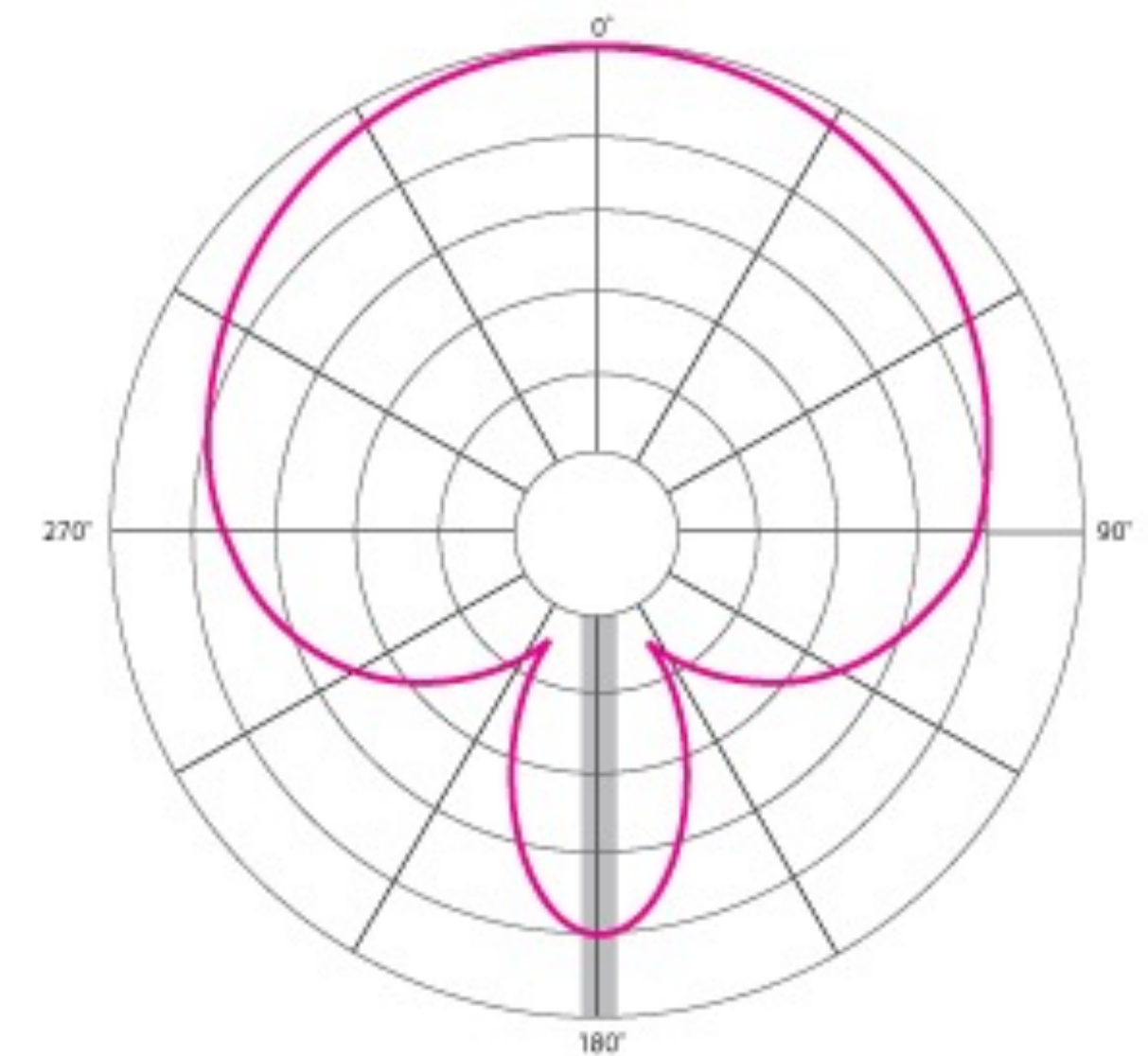
Omni-directional



Cardioid



Hyper-cardioid



# Mic Selection *like lenses*



## Omni *wide angle*

- ° Best for Ambience or Room Tone
- ° Great for stereo backgrounds
- ° Handles wind better than others
- ° Closest to the human ear
- ° Great stereo music recording
- ° Captures the most bass freq.
- ° No proximity effect (bass buildup)

## Cardioid *portrait*

- ° Rejects sound from rear
- ° Very forgiving pattern
- ° Great for voices (close up)
- ° Has proximity effect (bass buildup)
- ° Works well on instruments

## Hyper-Cardioid *zoom*

### SHOTGUN:

- ° Very narrow pickup pattern
- ° Eliminates sound from sides
- ° Can be un-natural in reverberant spaces

### SHORT SHOTGUN:

- ° Best for indoor dialog on boom
- ° More natural than long shotgun in reflective or reverberant spaces
- ° Slightly wider pattern than long shotgun



## Accessories



Pop-screen



Wind-shield or Dead  
Cat or Zeppelin



Hi-cut or Low-pass filter



Shock-mount



Happy Mic'ing!!

