MICROPHONES

Group Research. Prepare a presentation on the items listed in your group’s description. Every person needs to research and present something. Use PowerPoint or another iPad presenting app.

Row 1

*Directional Characteristic*

Define and demonstrate:

Polar pattern

Polar response graph

On-axis

Off-axis

Polar shapes of microphone patterns

Sensitivity patterns

Omnidirectional

Bidirectional

Unidirectional

Cardioid

Supercardioid

Hypercardioid

Ultracardioid

Subcardioid

Row 2

*Operating Principle*

Define transducer

Define and demonstrate:

Main types of transducers in microphones

How the moving-coil mic operates

How the ribbon mic operates

How the condenser mic operates

Phantom Power

Electret condenser mic

Row 3

Compare moving-coil, ribbon, and condenser mics

What is each type best used for?

Give examples of each, including brand names, models and pictures of mics

How are pickup patterns shaped in the construction of microphones?

Demonstrate the proximity effect

How do you compensate for it?

How do you use it for your advantage?

*Response Characteristic*

Define and Demonstrate a Frequency Response Curve

What is transient response?

Row 4

*Output Characteristic*

Define and Demonstrate:

Equivalent Noise Rating/Self-Noise

Microphone Sensitivity

Maximum SPL Rating

Impedance

Stereo Mic Techniques

X-Y

Spaced Omni Pair

Crossed Bidirectional Blumlein

MS

ORTF

Multichannel Mic Techniques

Downmixing

LRFB

VSA Tree