

Sounds Active – The Basics



**Music Technology
Homework Sheets**

Control Room

What is a Control Room used for? _____

Reflection

Another issue in control rooms is the materials of the surfaces of the walls.

Basically, hard surfaces, like stone, glass or tiles, reflect lots of the energy of the waves back into the room.

While this is good (to a certain extent!) in a room where instruments will be played, it is less desirable in the control room as this ambience affects the clarity of the sound we are listening to.

Softer surface materials like plaster or fabric wall coverings reflect less of the energy and absorb more.

Listen to the differences - click on the five links under the drum kit to hear how drums sound in different rooms.



[Brick Room](#)

[Concrete Room](#)

[Wood Room](#)

[Glass Room](#)

[Living Room](#)

Which of the 5 areas shown has the least REFLECTION or REVERB in the recordings?

Why is this?

What are the **4** most important factors of an ideal Control Room?

1. _____
2. _____
3. _____
4. _____

Live Room

What is a Live Room used for? _____

The Live Room

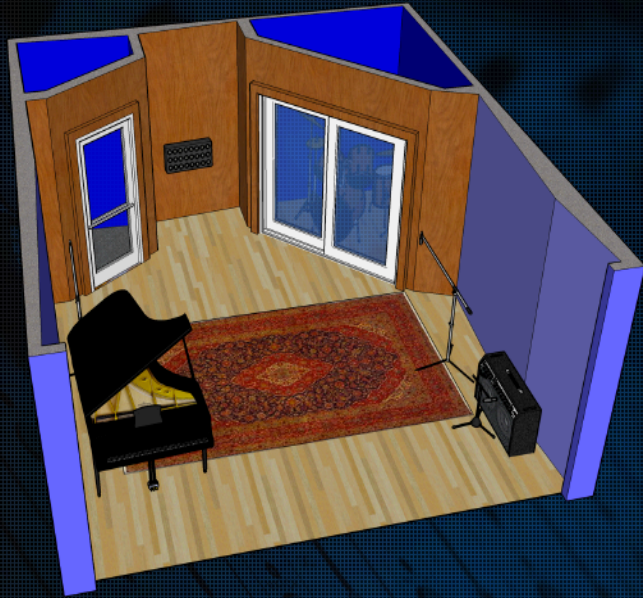
The **live room** is the space where the music is performed.

There are many similarities with the requirements of the control room in that the live room needs to be soundproofed as much as possible, the surfaces shouldn't be parallel to eliminate the possibilities of standing waves and it should be a comfortable working environment.

However, good live rooms will have a variable acoustic and it should be easy to change the room from a relatively "live" sound with lots of reflections to a relatively "dead" sound with limited reflections.

Let's look at these issues in turn.

Next 



Name 2 types of material that could create a 'Live' sound.

1. _____

2. _____

Name 2 types of material that could create a 'Dead' sound.

1. _____

2. _____

What are the **3** most variable factors in a Live Room?

1. _____

2. _____

3. _____

4. _____

Multitrack Recorder

What are the benefits of a multitrack recorder? _____



Explain an 'overdub'.

Explain a 'mix' or 'balance'.

What would happen if you adjusted the 'level' of a mix?

What would happen if you adjusted the 'panning' of a mix?

Dynamic Microphones

Are Dynamic mics used more in LIVE PERFORMANCES or in STUDIOS? _____

Do Dynamic mics require PHANTOM POWER? _____



Name 2 advantages of a Dynamic mic.

1. _____

2. _____

Name 2 disadvantages of a Dynamic mic.

1. _____

2. _____

Name **3** common uses of a Dynamic mic?

1. _____

2. _____

3. _____

Condenser Microphones

Are Condenser mics used more in LIVE PERFORMANCES or in STUDIOS? _____

Do Condenser mics require PHANTOM POWER? _____



Name 2 advantages of a Condenser mic.

1. _____

2. _____

Name 2 disadvantages of a Condenser mic.

1. _____

2. _____

Name 4 common uses of a Condenser mic?

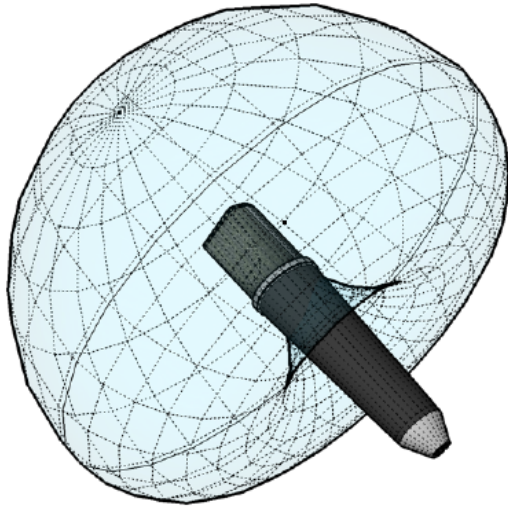
1. _____

2. _____

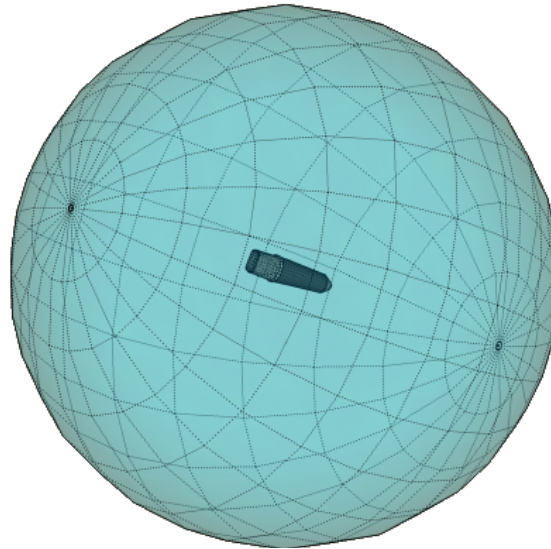
3. _____

4. _____

Microphone Polar Patterns



CARDIOID



OMNI-DIRECTIONAL

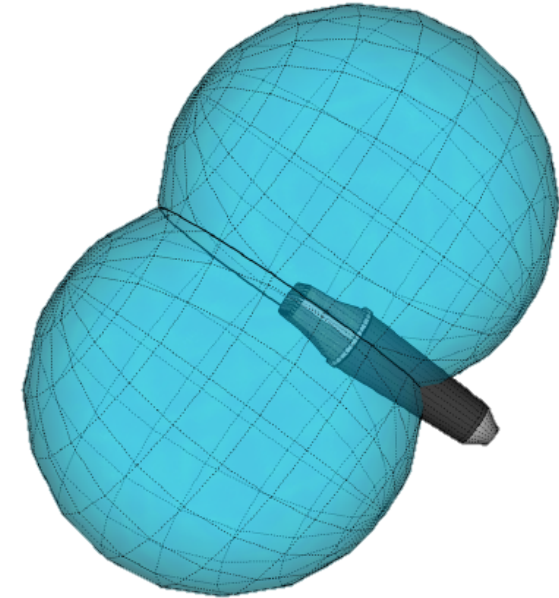


FIGURE OF EIGHT

Which Microphone Polar Pattern would you choose when recording:

1. 2 Backing Singers?

2. A business meeting with people situated around a circular table?

3. A solo singer?

4. An ambient live recording of an acoustic folk group?

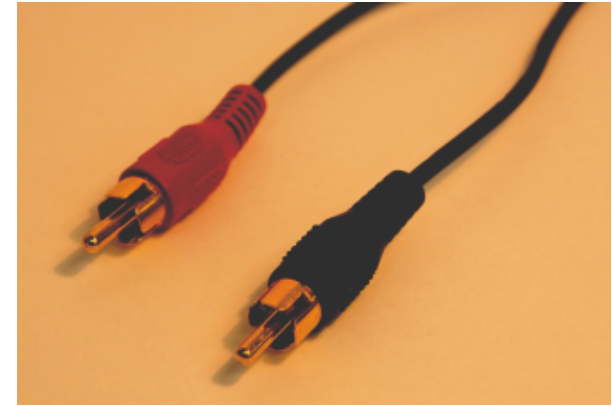
Leads



JACK TO JACK



XLR



PHONO

1. Name a common use of a Jack To Jack lead.

2. Name a common use of an XLR lead.

3. Name a common use of a Phono lead.

4. Give an example of a BALANCED lead.

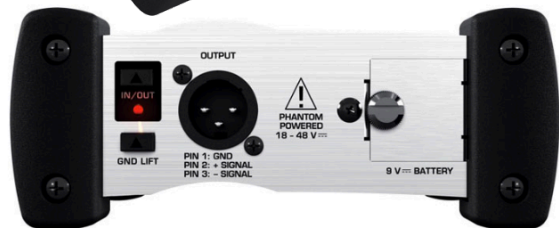
5. Give an example of an UNBALANCED lead.

6. How can you tell the difference between a MONO and a STEREO Jack connection?

DI Box

What does DI stand for? _____

What types of instruments would use a DI Box? _____



1. What type of lead would connect a guitar to the input of a DI Box?

2. Is this lead balanced or unbalanced?

3. What type of lead would connect the output of the DI Box to a mixing desk?

4. Is this lead balanced or unbalanced?
