

How To Find and Fix Hum In 3 Easy Steps

If your audio system has a hum or buzz coming from the loudspeakers, there are several easy steps you can take to discover what the cause and cure will be.

If you need a more extensive procedure, [click here](#) for the extended version.

First, you should determine the type of hum you are dealing with. There are two basic types: 120Hz buzz, typically caused by ground loops, and 60Hz hum, typically a result of poor shielding, cable problems, or close proximity to strong magnetic fields.

To determine which of these you have, listen to the two examples.

60Hz hum caused by close proximity to other equipment or cables problems.

120Hz hum/buzz typical of ground loop problems.

Once you've identified which type of hum it is, the next three steps are to narrow down where the hum is coming from.

Step 1

Turn the volume control up and down.

Does the hum in your speakers go up and down with volume? Take note so we can come back to this answer.

Step 2

Select different inputs.

Does the hum go away? Is it only audible with one input selected, or all of them?

Step 3

Disconnect all inputs.

Remove the cables connecting the receiver, power amplifier, or device powering your speakers. Only the speaker cables, loudspeakers, and AC plug powering the unit should now be connected.

Does the hum go away?

Examine your answers

Yes, to Steps 1 and 2

If the answers are yes to questions one and two, it's likely that one of your sources (like a CD player, turntable, video feed), is the source of hum. Remove that piece from the receiver, amplifier, or integrated and the system hum should now be gone.

Once determined you can either replace that piece of gear or read our [extended hum fixing guide](#) for further instructions.

Yes, to Step 3

If steps 1 and 2 were “**no**”, but removing all inputs eliminates the hum, it is likely you have what is called a ground loop.

Ground loops are common when video equipment is connected. In particular, a cable TV connection.

Reconnect each source again, one at a time and listen for the hum to return. The offending piece of equipment will show itself when you follow this procedure.

It is not recommended to run your equipment ungrounded, for safety reasons.