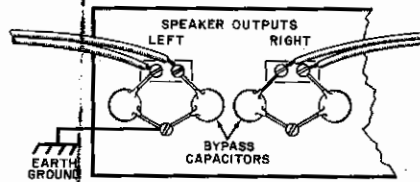


AUDIO RFI

Q. *My stereo contains no tuner, but the ham who lives up the street comes in loud and clear. The signal is not affected by the volume control. How can I stop this?—David Sluiter, Grand Haven, MI.*

A. You are experiencing audio rectification. That is, the r-f signal is being picked up by a wire (probably the speaker leads) and introduced to the circuitry somewhere past the volume control. It is then detected or demodulated into an audio signal by a diode, transistor junction, or possibly even a poor metal-to-metal connection. Once the signal is demodulated, it is amplified along with the program material you are listening to and delivered to the speakers.

The r-f signal can also enter via the power cable, path cords, or in severe



cases can be picked up directly by wiring within the amplifier or preamp if the components are not completely shielded. Signal leads can be consecutively unplugged to determine the r-f entry path.

In your case, I suspect the speaker leads. Disconnect them, but monitor the amplifier output through headphones. Wrap up the headphone cable to reduce its length. If the RFI has stopped, install 0.001- μ F disc ceramic capacitors from each side of the speaker outputs to the chassis and ground the chassis as shown here. If the RFI persists, remove the line cord from the wall socket. If the RFI stops immediately, that's how it's getting in. You can prevent this by installing a 'brute force' line filter. If it fades away as the capacitors discharge, the r-f is entering via another route.

In cases where the volume control affects the interference, the signal is entering at an earlier stage. Remove one input patch cord at a time until the r-f stops to determine the r-f entry point. Shielding the patch cord with a grounded copper braid, or installing small bypass capacitors, ferrite beads, or r-f chokes at the appropriate input jacks.

By all means notify the ham that you are experiencing RFI. Although he is not obligated to help you, he often will cooperate by setting up a series of test transmissions and by giving you some technical advice.