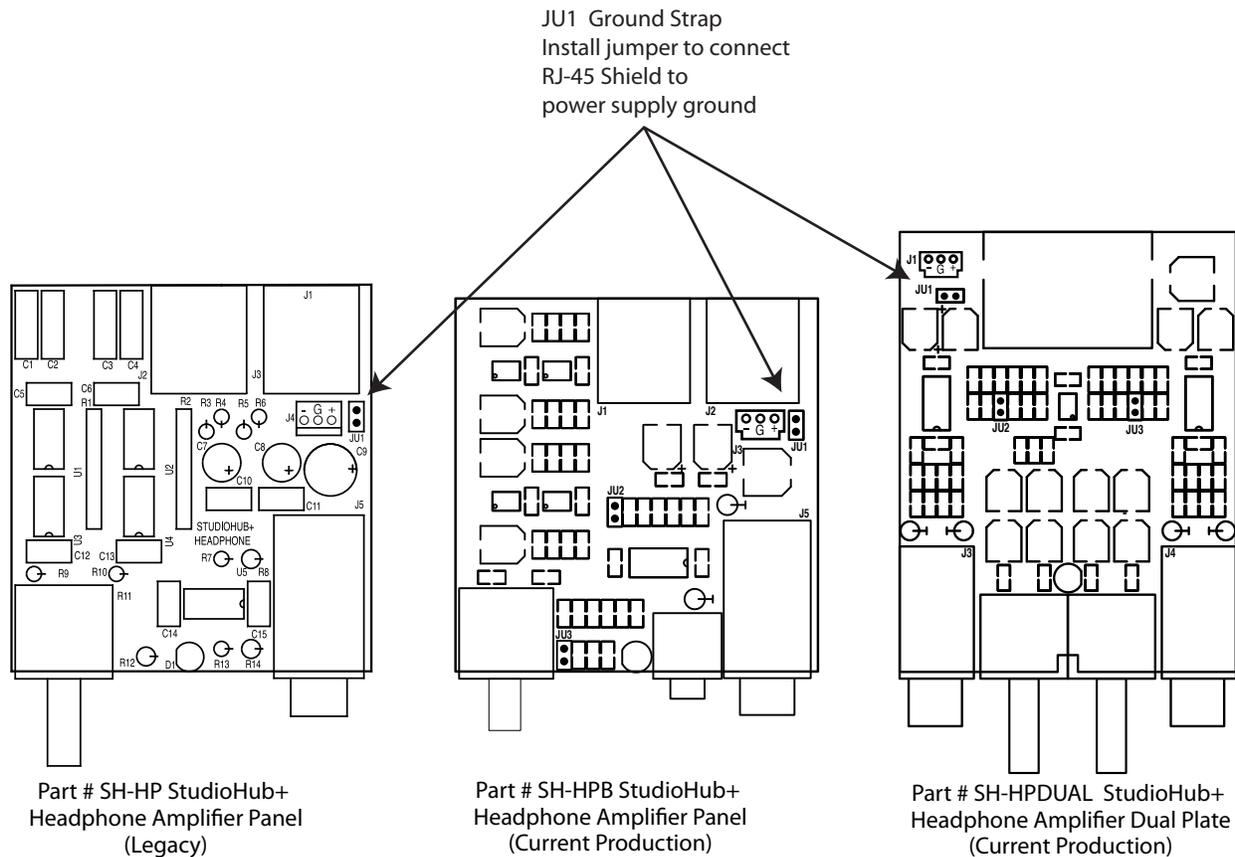


Chasing Down Hum in StudioHub+ HP, HPB and HPDUAL Headphone Amplifiers



Note:

If headphone amplifiers are daisy chained together via RJ-45 connectors remove this chain when troubleshooting so that units maybe fixed individually.

1. External Power Supplies

These supplies are often suspected to be the source of hum but have been found to rarely be the culprit as their failure mode rarely causes noise and they provide no ground loop path to building ground.

2. JU1 Grounding Strap

Insert or remove grounding strap as the first method of eliminating hum.

3. Shielded Patch Cables

StudioHub+ recommends and relies on CAT-5 (or CAT-6) shielded patch cables as the way of conducting source equipment grounds to the headphone amplifier. Shielded CAT cables can be easily identified by the silver clad surrounding the RJ-45 connector. Ensure that you are using a shielded patch cable. Conversely, a non-shielded cable can be used to eliminate hum if the hum is being caused by a ground loop.

4. Unbalanced Audio Feeds (no more than 6' of cable lead recommended)

If a headphone amp is being fed with unbalanced audio, the negative RJ-45 audio input pins (2 & 6) should be tied to ground. These ground connections may be made at the source gear or (if hum is still present) the negative leads may be tied to the CAT-5 shield at the headphone amp and the shield then connected to the unbalanced sleeve of the source. A custom CAT-5 patch cable may need to be fabricated for this purpose.

5. Lifting Shields

If hum is still present, it may be the result of a ground loop. Experiment with lifting the shield at either the source or headphone amp.

