Vintage Integrated Hi-Fi Amplifier Services

Integrated amplifiers (Fisher, Harmon Kardon, HH Scott, etc.) over 20 years old will typically have a good number of components past service life (failure prone) or out of spec (failure prone and/or detrimental to sound quality). This is due to age, use, and high parts count of integrated units which typically have phono stages, tone control sections, multiple connectors and switching options, and power amplifier sections). Separates (Dynaco, tube-based Marantz, McIntosh, etc.) suffer the same degradations but typically have lower repair cost per unit as they have fewer parts count and fewer functions per unit. I offer several levels of service to suit your resources and needs, listed in order of priority. Please note that non-functioning or partially functioning units will first require repairs on a case-by-case basis that sometimes fall outside the following parameters. All units will need to be evaluated to estimate final costs, but these are general guidelines:

Level 1 Service (basic)

Clean and tighten all pots, connectors, switches and tube sockets. Install medical grade grounded power cable to meet current standards of safety and eliminate shock hazard. Curve trace test all tubes on a laboratory grade computerized and calibrated curve tracer and replace as necessary (any tubes outside 10% factory spec will be replaced). Printed documentation of tube tests will be provided. Check all sections for basic function. Make bias and balance adjustments as per unit manual. Check power output and channel balance to 10% L/R tolerance. Replace any overly noisy resistors. Typical labor time is 1 hour to 1.5 hours depending on tube count. Labor time is charged in ½ hour increments at $45 per half hour. Parts costs are extra and will depend on the number of tubes replaced.

Level 2 Service (reliability, improved sonics)

Level 2 service includes everything described in level 1 service, plus the replacement and upgrade of all electrolytic capacitors and power supply diodes. Electrolytic capacitors dry out over time and are considered marginally reliable after about 15 years. Likewise, power supply diodes are under stress and failure/leakage prone. Aging capacitors display higher amounts of intermodulation distortion and other objectionable sonic artifacts. When these units were made 40-60 years ago the best general purpose electrolytic capacitors were typically rated at 2000 hours service @ 85 degrees. Due to major advancements, far better capacitors are now available at a reasonable cost, so I always upgrade when replacing. I use caps rated at 10,000 hours @ 105 degrees or better, with low ESR, high ripple current. These are much longer lived and better sounding and will provide long term reliability and improved sound over original parts. Diodes are replaced with modern high current, high voltage noiseless type to improve sonics and reliability. Sometimes replacement of signal path coupling caps is recommended for power

section stability, depending on what type of original parts were used and their condition. I generally replace these with reasonably priced film-and-foil type with excellent sonics and reliability. All brands of fancy caps can be provided at extra cost, taking your preferences into account - I can certainly suggest some. Prices for these vary considerably. Total labor time for level 2 service is typically 2.5 to 3 hours for an integrated amp, 1.5 to 2 hours for separate type power amps. Parts cost varies per unit based on number of components required and difficulty of mounting.

Level 3 Service (Commitment to Excellence)

This level includes everything outlined in level 1 and level 2 service, with the addition of any upgrades I can suggest to improve sonics and/or noise specs informed by my long history with the hi-fi repair and custom building community in NYC (please see my website press pages for reviews in Stereophile, etc.).This will often include upgrades of signal path capacitors and resistors, and blueprinting of phono stages for noise and RIAA accuracy. Labor time can run anywhere from 3 to 10 hours depending on work performed and condition of the unit, billed in half hour increments. Parts extra.

All services are performed with state of the art, calibrated test equipment, including analog and digital oscilloscopes, Quantum QA401 Audio Analyzer, Low distortion test signal oscillators, Reverse RIAA analysis for phono stages, eTracer computerised curve tracer/ tube tester. I use the highest quality parts and NASA grade non-eutectic solder, and in some cases 4% silver solder. Listening sources include quality Hi-Res digital, MQA, both magnetic and moving coil cartridge equipped turntables, both test records and music on vinyl.