

# 2014 Capital Audio Fest DIY Amplifier Contest

**WARNING! Building amplifiers and/or choosing to work with high voltage is a potentially dangerous undertaking that can seriously injure, maim, or kill. Do not undertake building an amplifier or working with high voltage without adequate safety training, knowledge, and skill. Capital Audio Fest, it's officers, staff, agents, volunteers, Judges, and/or their executors, heirs and assigns are in no way liable for your decisions, experiences, expenses, or injuries related to building or operating any amplifier or other electrical device!**

**General Overview:** The 2014 Capital Audio Fest DIY Amplifier Contest (the "Contest") is open to any and all Do it Yourself ("DIY") stereo amplifiers (the "Amplifier") designed to drive a pair of Audio Note AN-E/Lx loudspeakers in The Magnolia Pre-Function Room of the Sheraton Silver Spring Hotel [Loudspeakers are 94-95 dB efficient - see: [http://www.audionote.co.uk/products/speakers/an-e\\_01.shtml](http://www.audionote.co.uk/products/speakers/an-e_01.shtml); Contest room is approximately 600 square feet.] Subject to the rules, restrictions, regulations, and requirements contained herein, the Amplifier design for the Contest is at the unlimited discretion of the Amplifier builder/entrant (the "Entrant"), and may incorporate any combination of tube(s) and/or solid-state device(s) as desired.

Entrants may be professionals in the audio field, or novice builders, as long as they are competent adults who personally constructed the Amplifier. The design does not have to be original or unique; however, in such cases, it is expected that the original designer will both grant permission to use the design and will receive appropriate credit. In the event an established commercial design is used, such design must be considered in the public domain and must also be appropriately credited. Amps built as kits will be allowed, appropriate credit to the designer/manufacture must be given, and any changes to the kit design (other than straight parts upgrades) should be fully documented.

Only one stereo Amplifier may be entered per Capital Audio Fest ("CAF") attendee. All Entrants must pay the full CAF attendance fee for all three days of the Festival, must provide a signed legally binding Entry Form, an accurate, complete, and legible schematic of the Amplifier signal circuitry and power supply, and the Entrant (or the Entrant's Designated Agent) must personally deliver the Amplifier to the designated Contest staging area. If the Entrant chooses to utilize a Designated Agent, the Designated Agent must additionally pay a CAF attendance fee for the day they deliver the Amplifier. After the Contest, the Entrant (or the Entrant's Designated Agent) must retrieve the Amplifier from the designated Contest retrieval area. Please note that the designated Contest staging area and the designated Contest retrieval areas have not yet been determined.

**Safety Requirements:** Basic common sense and good judgment should be used by the Entrant, and any obviously dangerous Amplifier(s) will NOT be allowed! All Amplifiers must utilize appropriately fused power transformer(s), with bleeder resistors placed on each rectified secondary leg. Fuse should be contained within a standard UL-listed fuse holder, accessible from the chassis exterior.

Amplifiers must be fully contained within a single chassis, with no bare exposed wiring. All tubes and/or other detachable exposed components must utilize standard plugs, sockets, etc. All components must be permanently wired in place - meaning: no clip leads permitted. All tubes and/or solid state devices must be operated at or below manufacturer's maximum (CCS, if specified) recommended dissipation, voltage, and/or current limits.

**Practicality and Size Restrictions:** All Amplifiers must operate on USA-standard single-phase 120 Volt 60 Hertz AC, and maximum allowable fuse size is 5 Amperes. It is strongly recommended, but not required, that the Entrant provide replacement fuse(s) for the Amplifier; such replacement fuse(s) should be taped to the rear of the Amplifier.

Amplifier must have an on/off switch and must utilize a single standard 10 Amp IEC plug for detachable power cord. Amplifier must utilize RCA input jacks and standard binding posts for output. Additional forms of input and output are acceptable, but will not be used for the contest.

Amplifier must be contained within a single chassis not larger than 20" x 20" x 20", and must weigh less than 75 pounds. In addition to the required on/off switch, the Amplifier may optionally have a volume control, an input selector switch, and/or a means for bias adjustment. It is recommended, but not required, that all other switches and/or external methods of adjustment be disabled for the Contest.

It is recommended, but not required, that the Amplifier be capable of being driven to full power output by 1 VAC of input signal or less. A bottom cover for the Amplifier is also recommended, but not required.

## **Judging Rules and Criteria**

Amplifier may be delivered to the designated Contest staging area during normal CAF hours on either Friday, July 25, 2014 or Saturday, July 26, 2014. In addition, Amplifiers may also be delivered to the designated Contest staging area between 7:00 am and 8:00 am on Sunday, July 27, 2014. Amplifiers delivered after this time on Sunday may be

disqualified - such disqualification decision will be at the discretion of the Judges, and shall be primarily based upon the number of Amplifiers already entered in the Contest.

Each Amplifier will be assigned a number, and an Amplifier claim check will be given to the Entrant (or the Entrant's Designated Agent) upon delivery. This Amplifier claim check must be presented when collecting the Amplifier after the Contest. Entrants, or their Designated Agents, must retrieve their Amplifiers not later than 8:00 pm Eastern time on Sunday, July 27, 2014.

Both channels of the Amplifier must be fully functional, with all tubes and/or other detachable devices properly installed, and bias must be properly set when the Amplifier is delivered to the designated Contest staging area. If, at the time of audition, the Amplifier is non-functional, and/or if the fuse blows during audition, the fuse will be checked and replaced only if the Entrant provides a properly-sized replacement fuse, taped to the rear of the Amplifier chassis. If such fuse replacement does not eliminate the problem, the Amplifier will be eliminated from the Contest. Only one fuse failure in the initial round of auditions will be allowed, and such one-time fuse replacement will not negatively impact the Judge's scoring. Aside from checking the fuse and/or possibly adjusting the (optional) volume control, neither CAF staff and/or it's Judges will make adjustments of any kind to the Amplifier!

Please note: these restrictions only apply to the initial round of Amplifier auditions; meaning: if the Judges decide an Amplifier is worthy of a second, third (or more) audition(s), additional fuse replacements shall then be allowed at the reasonable discretion of the Judges, and adjustment of switches/controls will also be considered permissible by CAF staff and/or Judges. [For this reason multiple replacement fuses are recommended.]

At all times, there will be three Judges. Judges will strive to be fair, objective, and impartial and may not be Entrants in the Contest. In the event of dispute, complaint or controversy, Judges will collectively use their best objective and impartial method(s) of resolving such issue(s). In particular, Judges will use their best interpretation of the spirit of these Contest rules, restrictions, regulations, and requirements to determine whether or not an Amplifier conforms or does not conform. All decision(s) of the Judges shall be considered final.

CAF officials and Judges will make a best effort to keep the judging "blind," referring to Amplifiers by their assigned number, and endeavoring to keep the identities of the Amplifier Entrant anonymous until the conclusion of the Contest. Once Contest auditions commence on Sunday, Judges will not discuss any elements of the Contest with non-Judges (or CAF staff) until the Contest has concluded. After the Contest, Judges will be free to discuss any aspects of the Contest, however, they are under no obligation to do so.

All Amplifiers will be auditioned on a pair of Audio Note AN-E/Lx loudspeakers (described above) in the Magnolia Pre-Function Room located in the Sheraton Silver Spring Hotel. All Amplifier auditions will utilize identical source material, front-end components, AC power cord, interconnects, and speaker cables. Each Amplifier will warm up for approximately 4 to 6 minutes before judging begins, during which time volume will be adjusted to identical levels, using a single reference dB meter. Judging will not begin until such volume level is deemed satisfactory. Actual audition time is expected to be approximately 10 to 12 minutes, on a wide variety of identical digital material familiar to the Judges. At the Judge's discretion, audition time may be considerably less than the standard 10 to 12 minutes.

Judges will rate the Amplifier(s) based upon timbre/tonal accuracy (25 points available), transparency (20 points available), speed/dynamic range (15 points available), imaging (10 points available), and overall listening impression/satisfaction (30 points available). At their discretion, and for any objective reason, Judges may choose to re-audition certain Amplifiers, and such re-auditioned amplifiers may be given a new score. However, Judges are not obligated to allow second, third (or more) auditions of any Amplifier(s). Because this is intended to be a "blind" Contest, Amplifier appearance will not be a judging criteria. [However, Amplifier appearance may be used as possible tie-breaking criteria in determining Contest prize winners.]

Based upon the cumulative numerical scoring of the three Judges, a first and second place Contest winner will be announced. The judges may choose to announce additional Contest places (third, fourth, fifth, etc), but they are under no obligation to do so. In the event of a tie in voting, the Judges may use any reasonable, mutually agreed upon, objective method to break such tie; including, but not limited to: Amplifier appearance, unique Amplifier design elements, and/or further listening tests. Prizes will be awarded; however, such prizes have not yet been determined.

# Sample CAF 2014 DIY Amplifier Contest Judge's Form

NOTE: actual form will have additional space for Judge's comments

**Sunday, July 27, 2014**

**CAF Amplifier #** \_\_\_\_\_

**Judge #** \_\_\_\_\_

**Timbre/Tonal Accuracy** (25 points available): \_\_\_\_\_

**Transparency** (20 points available): \_\_\_\_\_

**Speed/Dynamic Range** (15 points available): \_\_\_\_\_

**Imaging** (10 points available): \_\_\_\_\_

**Overall Listening Impression/Satisfaction** (30 points available): \_\_\_\_\_

**Total score:** \_\_\_\_\_

