

**FEDERAL TRADE COMMISSION
16 CFR Part 432**

**Trade Regulation Rule Relating to
Power Output Claims for Amplifiers
Utilized in Home Entertainment Products**

AGENCY: Federal Trade Commission.

ACTION: Confirmation of Rule.

SUMMARY: The Federal Trade Commission (“FTC” or “Commission”) has completed its regulatory review of its Trade Regulation Rule Relating to Power Output Claims for Amplifiers Utilized in Home Entertainment Products (“Amplifier Rule” or “Rule”), as part of the Commission’s systematic review of all current Commission regulations and guides, and has determined to retain the Rule in its current form. The Commission also takes this opportunity to issue guidance concerning the testing requirements under the Rule for measuring power ratings of multichannel amplifiers.

DATES: This action is effective as of [INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Requests for copies of this notice should be sent to: Public Reference Branch, Room 130, Federal Trade Commission, 600 Pennsylvania Ave., NW, Washington, DC 20580. The notice also is available on the Internet at the Commission’s website, <http://www.ftc.gov>.

FOR FURTHER INFORMATION CONTACT: Jock Chung, (202) 326-2984, Attorney, Division of Enforcement, Bureau of Consumer Protection, Federal Trade Commission, Washington, DC 20580.

SUPPLEMENTARY INFORMATION:

I. Introduction

The Commission, as part of its oversight responsibilities, reviews its rules and guides periodically to seek information about their costs and benefits, as well as their regulatory and economic impact. The information obtained assists the Commission in identifying rules and guides that warrant modification or rescission.

On February 27, 2008, the Commission sought comment about the Amplifier Rule, including comments regarding whether there was a continuing need for the Rule, the impact of the Rule on the flow of truthful information to consumers, suggested modifications to the Rule, and the costs and benefits associated with the Rule. The Commission also sought specific comments concerning whether the Rule should be amended to address testing requirements for determining the power ratings for multichannel amplifiers.

The Commission has reviewed the comments, and concludes that the Rule continues to benefit consumers and should be retained. The Commission also has determined that the evidence does not indicate widespread deceptive or unfair practices that would justify any amendments to the Rule, including amendments to the testing procedures for multichannel amplifiers.

II. Background

In response to misleading or confusing power distortion and other performance claims, the Commission promulgated the Amplifier Rule in 1974 to assist consumers who purchase power amplification equipment. The Rule standardized the measurement and disclosure of various performance characteristics of power amplification equipment intended for home entertainment purposes. 39 FR 15387 (May 3, 1974).

In particular, the Rule requires that manufacturers fully drive all “associated” channels to the rated per channel power when measuring the power output of sound amplification equipment that is designed to amplify two or more channels simultaneously. At the time the Commission established the Rule, the only equipment subject to this requirement was stereo amplifiers, and thus the Rule required manufacturers to fully drive both “associated” channels of such amplifiers when measuring power output.

Technological developments have changed the market for sound power amplification equipment since the Commission issued the Amplifier Rule. For example, improvements in amplifier design have enabled manufactures to make even inexpensive amplifiers with inaudible levels of harmonic distortion. Consequently, in 2000 the Commission exempted certain advertising from the Rule’s Total Harmonic Distortion (THD) disclosure requirement. 65 FR 81232 (Dec. 22, 2000). Additionally, to address the development of self-powered subwoofer-satellite combination speaker systems, the Commission clarified the manner in which the Rule’s testing procedures apply to these systems.

The introduction of multichannel “home theater” equipment with five or more channels also has dramatically improved consumer amplification choices. This improvement, however, raises questions regarding which of the new channels are “associated” under the Rule. Consequently, in 2000 the Commission issued a Supplemental Notice of Proposed Rulemaking (“SNPR”) soliciting comment on Commission proposals to amend the definition of “associated channels” when measuring the power ratings of multichannel home theater amplifiers. 65 FR 80798 (Dec. 22, 2000). The SNPR elicited only one comment from the Consumer Electronics Association (“CEA”). CEA noted that there was no industry consensus regarding measuring power output of multichannel amplifiers.

On January 15, 2002, at the request of CEA, the Commission deferred action to allow industry to form a consensus on procedures for testing multichannel amplifiers . 67 FR 1915 (Jan. 15, 2002). Although CEA subsequently issued a standard, designated EIA/CEA-490-A, “Test Methods of Measurement for Audio Amplifiers,” the Commission’s review did not find widespread adoption of this standard.

On March 20, 2007, the Commission determined that industry had not agreed on a power rating standard for multichannel amplifiers. 72 FR 13052 (March 20, 2007). With no industry standard in place, and with only CEA’s comment on the rulemaking record, the Commission concluded it would not be in the public interest to amend the Rule, and terminated its rulemaking. The Commission stated that until it provided further guidance regarding which channels need to be associated for purposes of rating multichannel amplifiers, it would not enforce the association requirements of Section 432.2 of the Rule as the Rule relates to the continuous power output per channel ratings for multichannel amplifiers.¹

III. Regulatory Review

On February 27, 2008, the Commission published a *Federal Register* notice (“FRN”) seeking comment on the Amplifier Rule as part of the Commission’s periodic review of the Rule to determine its current effectiveness and impact. 73 FR 10403 (Feb. 27, 2008). As noted above, the FRN sought comment on the continuing need for the Rule; the costs and benefits of the Rule; and what effects, if any, technological or economic changes have had on the Rule. In addition, the FRN specifically requested comments regarding whether the Rule should be revised to include additional power ratings guidance for multichannel amplifiers, and requested

¹ 72 FR 13052, 13053.

comments about the potential benefits and costs of amendments to the Rule to address power ratings for multichannel amplifiers.

The Commission received two comments in response, one from Richard Myslinski and one from Sony Electronics Inc. (“Sony”); these comments are available at <http://www.ftc.gov/os/comments/amplifirerule/index.shtm?>. Mr. Myslinski’s sole comment was “I think the FTC should let the free market reign and avoid further burdensome regulation.” Mr. Myslinski did not submit any further evidence with his comment.

Sony commented that the Amplifier Rule serves a useful purpose, noting that “the Rule gives manufacturers a ‘bright-line’ standard against which to measure themselves and the claims of their competitors.” Sony further stated that “although [power output of amplifiers] can be objectively measured, the measurements can be done in different ways, thus making the claims susceptible to manipulation,” and that “[t]his combination of factors makes the Rule an important element in the manufacturer-customer relationship, and it should remain as such.” Moreover, Sony stated that “[w]ithout a clear rule, such as the current Rule . . . , Sony believes that there is a great deal of risk that, at best, consumers would not receive information useful to their purchasing decision, or, at worst, could be deceived by certain power output claims.”

More specifically, Sony suggested that the Commission amend the Rule to permit manufacturers to disclose power ratings measured according to the procedures set forth in 16 C.F.R. § 432, according to the procedures specified in EIA/CEA-490-A, or according to both procedures. Sony claimed that “[t]esting according to [EIA/CEA-490-A] would protect and inform consumers at least as much as the test procedures and disclosures currently in the Rule,” that “[t]he greater specificity and scope of [EIA/CEA-490-A] would encourage manufacturers to differentiate products based on a number of technical characteristics,” and that disclosing power

ratings under both testing methodologies would give consumers a more complete picture of the power of the system.

Sony also stated that the Amplifier Rule should not be amended to define all channels of a multi-channel home theater system as “associated.” Sony contended that “this approach . . . would fail to acknowledge the changes in home audio systems over the past 34 years, would prove unworkable in light of ongoing developments in audio technologies, and could stifle innovation.”

The Commission concludes that there is a continuing need for the Amplifier Rule. Sony’s comment provides evidence that the Amplifier Rule serves a useful purpose, while imposing minimal costs on the industry, and the Commission has no evidence to the contrary.

The Commission has determined that it will not seek to amend the Rule to permit manufacturers to use the EIA/CEA-490-A standard as an alternative for rating the power output of multichannel amplifiers. Allowing this alternate standard would invite consumer confusion because the EIA/CEA-490-A standard and the Rule would produce different testing results.² Consequently, consumers would not be able to compare amplifiers measured under one standard

² For example, the EIA/CEA-490-A standard specifies that power measurements be made at one percent THD and at a 1000 Hz, whereas the FTC protocol leaves the level of THD and the power bandwidth to the discretion of the tester. In addition, the EIA/CEA-490-A standard only requires that one channel be driven to full rated power, with all remaining channels driven to one-eighth power simultaneously. As set forth in this notice, the Amplifier Rule requires that at least the left and right front channels of multichannel amplifiers be driven to full rated power simultaneously.

to amplifiers measured under the other standard – a significant problem that led to the promulgation of the Rule.³

The Commission also has determined that it will not amend the Rule to define all channels of a multi-channel home theater system as “associated” channels that must be driven to full rated power simultaneously for measuring power output. Sony commented that “the additional channels in today’s 5.1 and 7.1 home theater systems are designed to carry vastly different sounds at vastly different levels,”⁴ Sony commented further that “to maintain the same power ratings if it were necessary to drive all channels simultaneously during testing, virtually all manufacturers would have to change the sound platform of their amplifiers and receivers to be able to sustain such output,” which “would drive up the costs of production considerably, [and] in turn drive up the ultimate cost to consumers.”

The Commission has received no contrary evidence indicating that all channels of a multi-channel home theater system frequently would be driven to maximum power simultaneously during typical playback conditions in home use. Absent such evidence, the Rule should not be amended.

³ Indeed, when the Commission promulgated the Rule in 1974, it noted that at the time there were “no less than seven commonly used methods of determining amplifier wattage ratings, all of which will yield substantially different results.” 39 FR 15387, 15388.

⁴ Other sources support this contention. *See, e.g.*, WHAT IS SURROUND SOUND, <http://www.customhomeaudio.net/customhomeaudio/surroundsound.html> (Stating that in multichannel systems “[t]here is a pair of surround sound speakers that is placed to the side of (and slightly above) the audience to provide the surround sound and ambient effects”); Mike Sokol, SURROUND SOUND MIXING TECHNIQUES, (2005), <http://www.digifreq.com/digifreq/article.asp?ID=23> (“[M]ovie soundtracks [mix] . . . surround [*sic*] effects in the rear.”).

The Commission previously stated that it would not enforce the “association” requirements of Section 432.2 of the Rule until it provided further guidance regarding which channels need to be associated for purposes of rating multichannel amplifiers. The Commission now provides that guidance. Specifically, at a minimum, the left front and right front channels of multichannel amplifiers are associated under the Rule. It, therefore, would be a violation of the Rule to make power output claims for multichannel amplifiers utilized in home entertainment products unless those representations are substantiated by measurements made with, at a minimum, the left front and right front channels driven to full rated power.

The left and right front channels of home theater multichannel amplifiers are responsible for reproducing a substantial portion of the musical soundtracks of movies, as well as a substantial portion of the program content of music CDs and DVDs.⁵ These soundtracks and music program material, like that of normal stereo recordings, typically drive both the left and right front channels simultaneously. Thus, if a manufacturer does not, at a minimum, drive the left and right front channels to rated per channel power during power output testing of a multichannel amplifier, the test results will not provide a useful measurement of the amplifier’s

⁵ See, e.g., TOMLINSON HOLMAN, *SURROUND SOUND*, 197 (Focal Press 2007) (discussing the soundtrack for the beach landing scenes of the film *SAVING PRIVATE RYAN*, and noting the importance of a pure stereo mix in the left front and right front channels); *WHAT IS SURROUND SOUND*, <http://www.customhomeaudio.net/customhomeaudio/surroundsound.html> (“There is one center speaker which carries most of the dialog . . . and part of the soundtrack. There are left and right front speakers that carry most of the soundtrack (music and sound effects).”); *WHAT IS SURROUND SOUND?*, <http://www.tech-faq.com/surround-sound.shtml> (“[The front right and front left speakers] are usually the most important speakers in your surround sound set up. Most of the music or sound will come from these two speakers.”).

ability to play such content.⁶ Furthermore, the most prominent disclosed output in any direct or indirect representation of the power output of a multichannel amplifier must treat the left and right front channels, at a minimum, as being associated.

Finally, the Commission notes that pursuant to § 432.2 and § 432.4 of the Rule, marketers must express all power output disclosures in minimum watts “per channel.” Consequently, representations of aggregate power output, such as “500 watts” or “500 watts total power” for an amplifier with five channels that can output 100 minimum watts per channel, would not comply with the Amplifier Rule.

IV. Conclusion

For the reasons described above, the Commission has determined to retain the current Amplifier Rule.

List of Subjects in 16 CFR Part 432

Amplifiers, Home entertainment products, Trade practices.

Authority: 15 U.S.C. 41-58.

By direction of the Commission.

Donald S. Clark
Secretary

⁶This procedure also will promote consistency between the per channel power output ratings for stereo amplifiers and multichannel amplifiers.