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National Association of NAB BROADCASTERS

Radio TechCheck

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AM Stations Get Help with NRSC-2 from Harris

Harris Corporation has announced the availability of a $325 modification kit that enables its MW-1/1A AM transmitter to fully comply with the NRSC-2 emission mask standard that is now a part of the FCC Rules. Harris is making this kit available to AM broadcasters so that they can comply with the provisions of Section 73.44 of the FCC Rules.

Section 73.44 incorporates the provisions of the NRSC-2 standard, which was developed by the National Radio Systems Committee (NRSC) in an effort to reduce second-adjacent channel interference in the AM band. It followed NRSC-1, which standardized the preemphasis of AM broadcasts; the deemphasis of AM receivers; and the audio bandwidth of AM stations prior to modulation.

NRSC-1 and NRSC-2 were adopted to create a transmission/reception system where AM broadcast stations would know, with certainty, the likely audio response characteristics of AM receivers — and AM receiver manufacturers would know, with certainty, the likely audio response characteristics of AM broadcasts. The intent of this "matching" of preemphasis and deemphasis was to improve the consumer's overall satisfaction with the technical quality of AM radio.

When the FCC incorporated the requirements of NRSC-2 into its technical rules, it gave stations until June 30, 1994, to complete measurements showing compliance with the standard (see Section 73.44 of the FCC Rules). Later, the FCC effectively extended this deadline to January 31, 1995, for stations (1) whose transmitters had not caused interference to another party; (2) whose transmitters were non-compliant due to transmitter design, rather than lack of maintenance; and (3) who were diligently working with the transmitter manufacturer to correct the non-compliance problem.

One of the transmitter designs that posed a compliance problem for a number of stations was that of the Harris MW-1/1A. As of the January 31, 1995, cutoff date for bringing these transmitters into compliance, Harris was still working on a solution. On April 4, 1995 in a letter to the FCC, Harris announced it had developed a solution.

Harris says that the modifications it has developed for achieving compliance consist of component changes — and additional parts — for the power amplifier modules and audio driver of the MW-1/1A. Harris says that it should take the average engineer approximately three hours to install the modifications — but that additional time should be allotted for checking the transmitter's operating condition, and making repairs, if necessary.

Harris has a kit (part number 992-9216-001) available for making the necessary changes. It costs $325 per transmitter, and includes materials for modifying one spare power amplifier module. Stations with more than one spare power amplifier module can order a separate kit (part number 992-9216-002) for $30. One $30 kit is needed for each additional module. Orders may be placed by contacting Harris' Parts Department at (217) 222-8200. Harris says that the above prices are good through October 1, 1995.

Janella Newsome, Editor TEL: +1(202) 429-5418 FAX: +1(202) 775-4981