

ALMA International Component Standards Sub-Committee Report

Written by Brian Sterling

(Component Standards Sub-Committee Chairman)

January 3, 2005

I began this year's ALMA International Component Standards Sub-Committee Report by first reviewing last year's report. I am proud to say that we have made significant strides towards fulfilling our Mission Statement, namely: To establish standard nomenclature, dimensions and tolerances, and methods of measurement and inspection for loudspeaker components. The Sub-Committee is working on several classes of documents, so I'll report on each individually:

Nomenclature Prints (NP's): All of the existing Soft Parts Nomenclature Drawings (now more generally referred to as Nomenclature Prints or NP's for short) have been approved for update. The NP's include Cone (Assembly, Body, and Surround), Dust Cap, Spider, and Voice Coil. The updated NP's are currently available on the ALMA website. Volunteers are now working on NP's for (tweeter) domes/diaphragms, padrings, whizzers, and grill cloth. We hope to have these NP's ready for approval at next year's Symposium.

Dimensioning and Tolerancing Guidelines (DG's): These documents establish guidelines for the dimensioning and tolerancing of loudspeaker components ("parts"), including defining the special characteristics and the tolerance to be applied to each feature. DG's will primarily be used by design (in conjunction with NP's) to help create more standardized prints with reasonable tolerances. A DG was created for each corresponding NP and they were approved for release at the 2003 Winter Symposium. The DG's are currently available on the ALMA website. DG's for padrings, whizzers, and grill cloth are currently being developed.

Measurement Guidelines (MG's): These documents establish guidelines for the measurement of loudspeaker components ("parts"), including defining the most practical and effective equipment for and methods of measurement. MG's will primarily be used by quality/inspection (in conjunction with existing measurement standards and ALMA International Work Instructions) to help make more consistent and repeatable measurements. A MG was created for each corresponding DG, and they are currently in the "draft" state. The DRAFT MG's are currently available on the ALMA website. MG's for padrings, whizzers, and grill cloth are underway.

Work Instructions (WI's): These documents provide detailed instructions for component measurement. Some of these documents have already been produced by other organizations (ASTM, ISO, etc.) so our first effort will be to locate all existing and relevant WI's (variously termed: Standards, Specifications, Methods, etc.). However, if none exist for a particular measurement, we will create ALMA International Work Instructions. WI's for spiders are approved for release and will soon be posted on the ALMA website. Draft WI's for cones exist, but need to be updated/revised. We obtained volunteers to create WI's for dust caps, voice coils, (tweeter) domes/diaphragms, padrings, whizzers, grill cloth, preconditioning and measurement conditions, and dynamic measurement of loudspeaker suspension component stiffness.

As you can see, much has been accomplished but there is still more to do (as always). If you are interested in learning more about the Component Standards Sub-Committee, please contact bsterling@harmanbecker.com.