Revit Model Notes
CDD Series Loudspeaker Families

The CDD series Families contains all models in the series and their associated mouthing hardware options and includes all data from the Data Sheet for each model for quick reference within the Revit environment. The zip file also contains a text file that is the family Type library and must be saved in the same folder with the .rfa file.

When importing the family into a project, the text file triggers a dialog box that lists all the Types (loudspeaker models) available to import along with a listing of all the data parameters in the Family. This gives the user the option to import only the Types they need for a given project and helps to reduce the file size of the project. Multiple types may be selected using the standard CTL or SHIFT + click selection commands.

The "Free Space" Families are intended to be used where the user wishes to fly the loudspeaker in a project and includes azimuth, pitch, and rotation parameters to orient the loudspeaker in the correct position in the project.

The "Assembly" Families have been created using the Generic Face Based Family template. This allows the family to recognize surfaces in a linked model to be hosted by surfaces in an architects linked model as opposed to a Wall or Ceiling based template which can only be hosted on a Wall or Ceiling that is native to the active project file. The user will need to select the "Place on Face" option in the Placement Ribbon when inserting the Family into a project model. These also include azimuth, pitch, and rotation parameters (where appropriate) to orient the loudspeaker in the correct position in the project.

REP Calculation

These families also include standard REP (Required Electrical Power) design calculations. Once inserted into a project, the user can enter the D2 (distance from the loudspeaker to farthest listener of interest), desired Peak Factor, and the desired level at the listener per instance. The family then automatically calculates the minimum power required to achieve that level. There is also a Recommended Tap parameter that reports the appropriate available tap based on the results of the REP calculation and the next highest available tap. If this value exceeds the highest available tap, then the parameter will report "999999". (Note, this parameter reports a value for all models, but only applies to models with integrated transformer taps).

This is an Instance calculation, and the results are "Shared Parameters" to allow the user to create Schedules listing all loudspeakers in the project with their associated TAP values. This also allows the user to create their own custom "Multi-Category Tag" to tag each loudspeaker to annotate tap values on drawings for each loudspeaker.

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