

Revit Model Notes

ADORN On-Wall Loudspeaker Family



The ADORN A series Family contains all eight models of on-wall loudspeakers including the A40 and A55 in black or white, and with/without transformer. The Family 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 Family has been created using the Generic Face Based Family template. This allows the family to recognize surfaces in a linked model to be hosted on the wall or in the ceiling of an architect's linked model as opposed to a Wall based template which can only be hosted on a wall that is native to the active project file. The user will need to select the "Place on Vertical Face" option for wall mounted instances or "Place on Face" option for ceiling mounted instances when inserting the Family into a project model.

The user can select whether to add the AIPKIT weatherproof terminal cover for each instance of placement by checking/unchecking the "Add AIPKIT Cover" switch parameter under the Model Properties parameter group in the Properties box. This is a "Shared Parameter" which can be used in Schedules such as a BOM and quantities will automatically adjust as changes are made in the model.

The Family includes orientation parameters for Azimuth and Pitch values in degrees to orient the loudspeaker as desired in each instance. There is also a "Horizontal Orientation" parameter which rotates the loudspeaker 90° on the mount. There is a "Ceiling Mounted" parameter which adds the CDDCB5 Ceiling bracket to the family and orients the loudspeaker and mount in the correct position on the bracket. This is a Shared Parameter allowing it to be used in Schedules such as a BOM and installed cost estimates which is automatically updated when any changes are made in the model.

The Family also includes the REP (Required Electrical Power).

REP Calculation

Once inserted into a ceiling or wall, the user can enter the "D2" (distance from the loudspeaker to the farthest listener of interest), "Desired Level @ Listener" and "Peak Factor" parameters in the Properties box and the Family will calculate the minimum REP (amplifier power in watts),



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and the “Recommended Tap Selection” (based on the next highest tap available per model). 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 a drawing for each loudspeaker. The “Recommended Tap Selection” parameter will display a series of 9’s if the REP exceeds the highest available Tap value for the selected loudspeaker model.

We have also included the AVIXA standard generic symbol in the Family. It is “Annotative” and the size of the symbol will adjust based on the drawing Scale of the selected View. The user may replace this symbol with their own symbol according to your drawing standards. The Detail View settings for the symbol and the loudspeaker model have been set to the typical settings as follows:

- “Coarse” displays the symbol, but not the device model
- “Medium” displays both the symbol and the device model
- “Fine” displays the device model, but not the symbol.

Users may add additional parameters and Labels such as Device Type, Sub-Type, IDs, and many others according to your specific design and drawing Standards. This will enhance the usefulness of the Family in your projects.

