RELEASE NOTES

COMPASS 4.3.1 UPDATES FOR GALAXY, CAL, AND RMSERVER

Compass 4.3.1 software requires the following firmware versions:

- GALAXY Firmware v1.3.0 (All models)
- Bluehorn 816 v1.3.0
- RMServer v2.3.0
- CAL v1.4.0

COMPASS FEATURES & ENHANCEMENTS

GALAXY Low Mid Beam Control (LMBC):

- Low Mid Beam Control Tab is located under Processor > Settings.

- Array Name: Allows you to label the Array (Flown Loudspeaker System)

- Status: This button allows you to enable or bypass Low Mid Beam Control for all affected channels

- Enable/Bypass for LMBC is also available in Output Processing. This button applies to all affected channels.

- LMBC Control Type: There are two options: Beam Spread and Steer Up

- Elements Per Output: This should match the physical connections in the array; one or two elements per output.

- Start On Output: Use this tool to select the first output of the GALAXY processor where LMBC processing starts.

- Number of Elements: Use this tool to set the number of total elements in the array.

- Element Location: Use this tool when spanning across GALAXY processors if you have more than 16 elements that require more than 16 processor outputs. Example: If you have 22 elements in your array, with one element per output and two processors, set the number of elements to 22 on both processors. On the first processor, set Start On Output to 1, set Element Location to 1. On the second processor, set Start On Output to 1, set Element Location to 17.

- Array Splay: This is the sum total of the splay angles of the array. To calculate Array Splay using the MAPP System Design Tool: Subtract the Rotation About Reference Point value from the Total Splay value shown at the bottom element of the Flown Loudspeaker System and enter the result in the Compass or Compass Go Array Splay column. The splay angle between the top grid and the first element should be set to 0 degrees. If the MAPP Rotation About Reference Point = -2 and Total Splay = -56, then the LMBC Array Splay = 54 degrees.

Tips for using Low Mid Beam Control:

- Signal drive lines must have correct polarity.

- Apply LMBC before any other EQ is applied.

- Gain Tapering can make LMBC ineffective.

- Do not treat array zones with different processing/gain below 1000Hz. (e.g. correct for low mid buildup with same filters on entire array, correct for HF distance only above 1k on individual zones).

- Spread is not optimal above 95deg Total Array Splay.

- Steer Up is not optimal above 45deg Total Array Splay.

- One array element per output is optimal.

- Two array elements per output is maximum and can only be used with arrays of twelve elements or more.

- Compass Software has been designed to not allow invalid or non-optimal configurations.

- LMBC is not designed for mixed product types in one array.

- When using fill loudspeakers on separate outputs from the systems using LMBC, be sure to set the appropriate all pass filter on the fill system output processing. This filter is provided with the associated outputs result on the Low Mid Beam Control tab.

- All speakers should be set to the same Delay Integration **pc** setting for the specific speaker model.

- System optimization: When using loudspeakers on separate outputs not using LMBC, one all pass filter can be used to optimize alignment with the outputs using LMBC.

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Compass 4.3.1 Release Notes
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