

BEDROCK TALKBOX INPUT CONFIGURATION OPTIONS

The Bedrock Talkbox GLLs have four selections available for Input Configurations. These options allow proper prediction of intelligibility using the Speech Transmission Index (STI) according to the latest version of IEC 60268-16^[1]. The Normal and Maximum options are for use with simulation programs such as EASE 5 and EASE Evac that allow you to select Speech as the Input Signal. If the simulation program does not have this capability, the Normal Speech and Maximum Speech configurations should be used.

For use in EASE 5 or EASE 4, these modes of operation can be selected by the user. For use in EASE Evac 1 or 2, the Normal configuration is used.

Why are these different GLL configurations needed?

The standard for STI requires that the input signal includes a speech spectrum. In EASE 5 and EASE Evac you can choose to use the speech spectrum required by the standard. This is the preferred method. For older programs like EASE 4 that do not offer this selection, the speech spectrum needs to be added to each loudspeaker as part of its properties. You can do this by either modifying the equalization for the loudspeaker, or you can use either the Normal Speech or Maximum Speech options.

The Bedrock Talkboxes also allow you to change the level of the speech signal from the recommended level of 60 dB SPL A-weighted called for in the STI standard. The Normal or Normal Speech selections produce this level at 1m when selected. Select Maximum or Maximum Speech to allow setting the level to the maximum of 72 dB SPL A-weighted. In EASE 5 and EASE 4 you can then use the gain control to select the desired level for the talkbox.

Which GLL should I use?

The answer to that question is, it depends. What are you attempting to accomplish?

If you want to know what the predicted intelligibility would be for a level greater than the normal speech level, use the appropriate Maximum or Maximum Speech configuration and set the desired level in the simulation program. For levels equal to or less than 60 dB SPL, use the appropriate Normal or Normal Speech configuration and set the desired level in the simulation program.

References

[1] IEC 60268-16:2020 "Sound system equipment - Part 16: Objective rating of speech intelligibility by speech transmission index." Available: <https://webstore.iec.ch/en/publication/26771>.
[Accessed 14 Sep 2025].

[2] Ahnert Feistel Media Group, "GLL Viewer Download,"
[Online]. Available: <https://www.afmg.eu/en/gll-viewer>.
[Accessed 14 Sep 2025].

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