



CBT-1000 and CBT-1000E

Power Handling & Nominal Impedance

CBT1000 alone:

- 1500 Watts (2 hr)
- 1000 Watts (100 hr)
- Impedance = 4 ohms

CBT1000 + 1000E:

- 3000 Watt (2 hr)
- 2000 Watt (100 hr)
- Impedance = 4 ohms

(IEC-shaped pink noise, continuous for stated duration [for more information about the impedances see question 2, below])

Maximum Recommended Amplifier Power

CBT1000 alone

- No more than 3000 Watts into 4 ohms CBT1000 + CBT1000E driven in parallel
- No more than 6000 Watts into 4 ohms

Do I need to use such a big amplifier to drive it?

No, you can use a smaller amplifier. The specification above states no more than 3000 Watts for the CBT1000 alone and no more than 6000 Watts for CBT1000 + 1000E driven in parallel. JBL recommends (see Tech Note "Danger: Low Power") that if one wants to get all the SPL that a speaker can produce, it's best to drive it with an amplifier that's rated double the speaker's continuous pink noise power handling rating into whatever impedance that loudspeaker is. This keeps the amplifier from limiting clean transient peaks from getting to the speaker. One caveat of this rule-of-thumb is that with such a powerful amplifier, the amplifier should never, ever, be driven into clipping. There must be a limiter, or the gain staging must be such that the amp never clips. As the Tech Note explains, the high frequency drivers of the speaker can be damaged from the high-frequency rich content that results from amplifier clipping. If you don't need all the SPL that the speaker can produce, then you can always use a smaller amplifier. Lowering the power by ½ results in Max SPL being 3 dB lower than the figures listed. Lowering the power again by ½ results in another 3 dB reduction in Max SPL. For example, you only need Max SPL sound levels that are 6 dB less than the Max SPL figure listed, you can use an amplifier that's 1/4th the size of the listed "no-more-than" power figures. It may be easier to attain high power levels by using two amplifier channels in bridged-mono mode, as long as the amplifier is rated to drive a 4 ohm load in bridge-mono mode.

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