



## Recommended CBT 1000 High-Pass, Limiter, & EQ Tuning

171110

### **IMPORTANT: Do Not Use a Crossover with the CBT 1000+1000E System:**

In CBT 1000+1000E systems, there must not be any outboard crossover between the CBT 1000 and CBT 1000E. CBT 1000 and 1000E utilize phase relationships to accomplish the precise aiming. Crossovers create phase shift (the degree of which depends on the slope of the filter). In most cases, using a crossover between the cabinets will put the LF drivers from the two cabinets into an incorrect phase relationship with each other, which could cancel out part or most of the LF output and/or could steer the sound in unintended directions. The surest way to ensure proper phase relationship is to parallel the two cabinets (1000 and 1000E) and drive them both full-range from the same amplifier channel. If they get driven from different amp channels, make sure the input to both channels is identical, that any filters (high-pass, low-pass, EQ, delay) are absolutely identical to each other – there can be no differences between them.

### High-Pass, Limiter Settings:

**Protective High-Pass:** 35 Hz, 24 dB/oct, Linkwitz-Riley

**LevelMax™ Limiter Settings:** Output Voltage Limiting:

- RMS Threshold (VRMS): **65V**
- Click the “Automatic” Radial Button to set Peak Threshold, Peak Release, and RMS Release to “Auto”

Transducer Thermal Limiting, Thermal Voltage: **52V**

Thermal Response Time (Sec): **10 Sec**

## EQ Settings:

	CBT 1000 Alone			CBT 1000 + 1000E Array		
	50 Hz Boost <small>** (See Important Note Below)</small>	180 Hz Cut	6 kHz Cut	50 Hz Boost <small>** (See Important Note Below)</small>	180 Hz Cut	6 kHz Cut
On-Wall, Indoors	Up to +6 dB Q=2	None	-1 dB Q=1	“Boost to Taste,” up to +6 dB  Q = 2	-4 dB Q=2	-1 dB Q=1
On-Wall, Outdoors	Up to +6 dB Q=2	None	None	“Boost to Taste,” up to +6 dB  Q = 2	-4 dB Q=2	None
Off-Wall, Indoors	Up to +6 dB Q=2	None	-1 dB Q=1	Up to +6 dB Q=2	None	-1 dB Q=1
Off-Wall, Outdoors	Up to +6 dB Q=2	None	None	Up to +6 dB Q=2	None	None

### \*\* 50 Hz Boost Notes:

- **IMPORTANT:** Frequency of this boost must be exactly 50 Hz (not any higher or lower in frequency). 50 Hz is the cabinet’s tuning frequency where such a boost can be implemented without damaging the system.
- Make sure the LevelMax™ Limiter setting is engaged to protect the system from being overdriven by this boost.
- “Boost to Taste” indicates that this filter in these circumstances is not to flatten or extend the response, but rather is a safe setting for if additional bass accentuation is desired.