

Understanding the "0 dB" volume control setting on your YBA Display

It is only in recent years that the concept of "0 dB" as it relates to audio amplifier volume controls and loudness, has become common. Previously, if a volume control had numerical values shown in a front panel display, the numbers got bigger as you increased the volume. When you reduced the volume, the numbers got smaller. It was simple, logical, and easy for anyone to understand. Loud equalled big numbers, soft equalled small ones

In today's world it is the negative values of dB loudness settings that are confusing. As you reduce the volume, the negative numbers grow larger. The confusion occurs because we've grown up comprehending that bigger numbers mean larger values or an increase.

The relative values of negative dB settings are actually logical, because in the old days, the settings on volume controls were entirely arbitrary and unrelated to actual dB values. So whatever one manufacturer chose to put on the front panel volume control or display applied only to that particular product. For example, one manufacturer might rate his volume control from 1 to 10, "1" being minimum volume and "10" being the maximum. Another might label the control going from 0 to 100.

Think of "0 dB" on your volume display as a kind of "maximum volume" setting. If you were to go beyond that, were it possible, you may well drive your amplifier into audible distortion or "clipping."

We have prepared the following table to give you an indication of the steps in the setting on our products from 0 to -80.

Display	Volume Level (dB)	Display	Volume Level (dB)	Display	Volume Level (dB)	Display	Volume Level (dB)
00	0	-20	-10	-40	-20	-60	-30.5
-01	-0.5	-21	-10.5	-41	-20.5	-61	-31.5
-02	-1 dB	-22	-11	-42	-21	-62	-32.5
-03	-1.5	-23	-11.5	-43	-21.5	-63	-33.5
-04	-2	-24	-12	-44	-22	-64	-35
-05	-2.5	-25	-12.5	-45	-22.5	-65	-36.5
-06	-3	-26	-13	-46	-23	-66	-38
-07	-3.5	-27	-13.5	-47	-23.5	-67	-39.5
-08	-4	-28	-14	-48	-24	-68	-41.5
-09	-4.5	-29	-14.5	-49	-24.5	-69	-43.5
-10	-5	-30	-15	-50	-25	-70	-45.5
-11	-5.5	-31	-15.5	-51	-25.5	-71	-47.5
-12	-6	-32	-16	-52	-26	-72	-50
-13	-6.5	-33	-16.5	-53	-26.5	-73	-52.5
-14	-7	-34	-17	-54	-27	-74	-55
-15	-7.5	-35	-17.5	-55	-27.5	-75	-58
-16	-8	-36	-18	-56	-28	-76	-61
-17	-8.5	-37	-18.5	-57	-28.5	-77	-65
-18	-9	-38	-19	-58	-29	-78	-70
-19	-9.5	-39	-19.5	-59	-29.5	-79	-75
						-80	MUTE