



## Amplifier Input Sensitivity (“Gain”) Setting Guide

Following the directions below will allow the user to adjust the input sensitivity of the amplifier(s) simply and easily in just a few minutes using equipment which is commonly available in installation bays.

### Necessary Equipment

- AC Voltmeter (Digital display recommended)
- CD with a sine-wave test tone recorded at 0dB reference level in the frequency range to be amplified (ex. 50Hz for a subwoofer amplifier, 1 KHz for a midrange application). Do not use attenuated test tones (-10dB, -20dB, etc.).

### The Nine-Step Procedure

**Step 1:** Disconnect the speaker(s) from the amplifier.

**Step 2:** Turn “Off” all processing on the head unit and the amplifier (bass/treble, loudness, EQ, etc.).

**Step 3:** Turn the input sensitivity control on the amplifier all the way down and switch “Input Voltage” to “Low”.

**Step 4:** Set head unit volume to 3/4 of full volume. This will allow for reasonable gain overlap with moderate clipping at full volume.

**Step 5:** Cross-reference the amplifier model used and impedance load per channel on the chart below to determine the target output voltage.

**Note:** When bridging two channels, the impedance each channel works at will be one-half of the load impedance. Therefore, it is necessary to divide the actual load impedance in half and use this impedance in the chart when bridging two channels. Also, the voltage found in the chart should be doubled.

**Step 6:** Verify that you disconnected the speakers before proceeding. Play a track with an appropriate sine wave (within the frequency range to be amplified) at 3/4 head unit volume.

**Step 7:** Connect the AC voltmeter to the speaker output of the amplifier.

**Step 8:** Increase the input sensitivity control until the desired voltage (determined in Step 5) is delivered. If multiple subwoofer amps are being used, set each one to the same exact voltage and you have also level matched them. If excessive voltage is read with the control at minimum (full counterclockwise), switch the “Input Voltage” to “High” and re-adjust.

**Step 9:** Once you have adjusted each amp to its maximum unclipped output level, reconnect all the speakers and proceed to adjust the level balance between the subwoofer and satellite amplifiers by turning DOWN the input sensitivity controls of amplifiers that are playing too loudly. Do NOT increase the input sensitivity of any amplifier as this will defeat the purpose of this procedure by permitting excessive clipping (distortion).

**Example #1:** when bridging an A2150 into a 4Ω load, we would use the 2Ω row and double the voltage to get an answer of 24.6V

**Example #2:** when bridging a 300/2v2 into a 4Ω load, we would use the 2Ω row and double the voltage to get an answer of 34.6V.

### A Series Voltage Chart

Imp.	A1200	A2150	A4300		A1400	A6450			A1800
	Mono	1&2	1&2	3&4	Mono	1&2	3&4	4&5	Mono
4Ω (or higher)	21.9V	13.4V	13.4V	13.4V	31.0V	13.4V	13.4V	13.4V	43.8V
3Ω	21.0V	12.8V	12.8V	12.8V	29.7V	12.8V	12.8V	12.8V	42.0V
2Ω	20.0V	12.3V	12.3V	12.3V	28.3V	12.3V	12.3V	12.3V	40.0V

### Slash Series Voltage Chart

Imp.	250/1v2	300/2v2	300/4v2		450/4v2		500/1v2	500/5			1000/1v2
	Mono	L&R	Front	Rear	1&2	3&4	Mono	Front	Rear	Sub	Mono
4Ω	31.6V	24.5V	17.3V	17.3V	24.5V	17.3V	44.7V	20.0V	10.0V	31.6V	63.2V
3Ω	27.4V	21.2V	15.0V	15.0V	21.2V	15.0V	38.7V	17.3V	8.7V	27.4V	54.7V
2Ω	22.4V	17.3V	12.3V	12.3V	17.3V	12.3V	31.6V	14.2V	-	22.4V	44.7V
1.5Ω	19.4V	15.0V	10.6V	10.6V	15.0V	10.6V	27.4V	12.3V	-	19.4V	38.7V