JL AUDIO®
Ahead of the Curve™

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 or file 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 source 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” (if amplifier is equipped).

Step 4: Set source 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 charts on the next page 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” (if amplifier is equipped) 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).

JL AUDIO®
Ahead of the Curve™

Amplifier Target Output Voltages

JX Amplifiers Voltage Chart

Imp.	JX360/2	JX360/4		JX250/1	JX500/1D	JX1000/1D
	1&2	1&2	3&4	Mono	Mono	Mono
4Ω (or higher)	21.0	16.7	16.7	26.5	34.6	44.7
3Ω	20.0	15.5	15.5	25.1	34.6	47.7
2Ω	19.0	13.4	13.4	22.4	31.6	44.7

XDv2 Amplifiers Voltage Chart

Imp.	XD300/1v2	XD600/1v2	XD200/2v2	XD500/3v2		XD400/4v2	XD700/5v2			XD600/6v2		
	Mono	Mono	1&2	1&2	Sub	F&R	Front	Rear	Sub	1&2	3&4	5&6
4Ω	28.3	40.0	17.3	17.3	26.8	17.3	17.3	17.3	26.8	17.3	17.3	17.3
3Ω	27.4	37.4	16.4	16.4	26.8	16.4	16.4	16.4	26.8	16.4	16.4	16.4
2Ω	24.5	34.6	14.1	14.1	24.5	14.1	14.1	14.1	24.5	14.1	14.1	14.1

Imp.	XD800/8v2				XD1000/5v2			XD1000/1v2
	1&2	3&4	5&6	7&8	1&2	3&4	Sub	Mono
4Ω	17.3	17.3	17.3	17.3	17.3	17.3	40.0	34.6
3Ω	16.4	16.4	16.4	16.4	16.4	16.4	37.4	49.0
2Ω	14.1	14.1	14.1	14.1	14.1	14.1	34.6	63.2

Slash v3 Amplifiers Voltage Chart

Imp.	300/4v3		600/1v3	1200/1v3
	Font	Rear	Mono	Mono
4Ω	17.3	17.3	49.0	69.3
3Ω	15.0	15.0	42.4	60.0
2Ω	12.3	12.3	34.6	49.0
1.5Ω	10.6	10.6	30.0	42.4

HD Amplifiers Voltage Chart

Imp.	HD600/4		HD900/5			HD750/1	HD1200/1
	Font	Rear	Front	Rear	Mono	Mono	Mono
4Ω	24.5	24.5	20.0	20.0	44.7	54.8	69.3
3Ω	21.2	21.2	16.0	16.0	38.7	47.4	60.0
2Ω	17.3	17.3	12.3	12.3	31.6	38.7	49.0
1.5Ω	15.0	15.0	10.6	10.6	27.4	33.5	42.4

Example #1: when bridging a XD200/2v2 into a 4Ω load, we would use the 2Ω row and double the voltage to get an answer of 28.2V

Example #2: when bridging a pair of channels on an HD600/4 into a 4Ω load, we would use the 2Ω row and double the voltage to get an answer of 34.6V.