

# Amplifier Level Setting Guide

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 [jlaudio.zendesk.com/hc/en-us/articles/204374120-Amplifier-Level-Setting-Guide](https://jlaudio.zendesk.com/hc/en-us/articles/204374120-Amplifier-Level-Setting-Guide)

## JL AUDIO® | Help Center

### Note:

The following article describes the Amplifier Level Setting process for most car audio amplifiers, regardless of brand. Specific target voltages for applicable JL Audio amplifiers are included in charts below.

Use these links to learn about the unique process specifically for:

RD Amplifiers

VXi Amplifiers



<https://youtu.be/2eRYzXBmWq8>

Following the directions below will allow the user to adjust the input sensitivity (or "gain") of the amplifier(s) simply and easily in just a few minutes using equipment which is commonly available in installation bays. Properly setting levels according to this procedure will result in optimum amplifier performance and will also improve system reliability.

## Necessary Equipment

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- 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 (for example: 50 Hz for subwoofer channels, 1 kHz for a midrange application).

Do not use attenuated test tones (-10dB, -20dB, etc.).

## The Nine-Step Procedure

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1. Disconnect the speaker(s) from the amplifier.
2. Turn off all processing on the source unit and the amplifier (bass/treble, loudness, EQ, etc.).
3. Turn the input sensitivity control on the amplifier all the way down. If there is a sensitivity range switch, set it to the "low" position.
4. Set the source unit volume to 3/4 of full volume. This will allow for reasonable gain overlap with moderate clipping at full volume.
5. Using the chart below, determine the target voltage for input sensitivity adjustment according to the nominal impedance of the speaker system connected to the amplifier outputs.
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 source unit volume.

7. Connect the AC voltmeter to the speaker output of the amplifier. Make sure to measure the voltage at the correct connectors (+ and -).
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. On a "Slash v3", HD or XDv2 series amplifier, if excessive voltage is read with the control at minimum (full counterclockwise), switch the "Input Voltage" to "High" and re-adjust.
9. Once you have adjusted each amp to its maximum unclipped output level, turn down the volume of the head unit and turn it off. Reconnect all the speakers, turn the head unit on and proceed to adjust the level balance between the subwoofer and satellite amplifiers. This is accomplished by listening to the system at a moderate level and 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).

## MX Amplifiers Voltage Chart

4Ω	14.1	23.7	16.7	31.6	17.3	28.3	31.6	25.3	34.6
3Ω	-	N/R	-	N/R	-	N/R	30.0	25.7	34.6
2Ω	11.8	N/R	15.8	N/R	14.1	N/R	28.3	24.5	31.6

## JX Amplifiers Voltage Chart

8Ω	-	34.6	-	-	-
4Ω	17.3	28.2	25.3	34.6	44.7
3Ω	16.2	N/R	24.5	35.5	47.4
2Ω	14.1	N/R	22.4	31.6	44.7

## Discontinued JX Amplifiers:

Imp.	JX360/2		JX360/4	
	Ea. Ch.	Bridged	Ea. Ch.	Bridged
8Ω	-	42.0	-	33.5
4Ω	21.0	38.0	16.7	26.8
3Ω	20.9	N/R	15.5	N/R
2Ω	19.0	N/R	13.4	N/R

## XD (M-Series) Amplifiers Voltage Charts:

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### System Amplifiers:

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8Ω	-	-	-	34.6	-	-	34.6	-
4Ω	17.3	26.8	17.3	28.2	26.8	17.3	28.2	40.0
3Ω	16.2	26.8	16.2	N/R	26.8	16.2	N/R	38.7
2Ω	14.1	24.5	14.1	N/R	24.5	14.1	N/R	34.6

### Multi-Channel Amplifiers: (XD200/2v2, XD400/4v2, XD600/6v2, XD800/8v2)

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8Ω	-	34.6
4Ω	17.3	28.2
2Ω	14.1	N/R

### Mono Amplifiers

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4Ω	28.3	40.0	49.0
3Ω	27.4	38.7	49.0
2Ω	24.5	34.6	44.7

## Slash v3 Amplifiers Voltage Chart

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4Ω	17.3	24.4	49.0	69.3
3Ω	15.0	21.4	42.4	60.0
2Ω	12.2	N/R	34.6	49.0
1.5Ω	10.6	N/R	30.0	42.4

## HD (MHD-Series) Amplifiers Voltage Chart

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8Ω	-	49.0	-	40.0	-	-	-
4Ω	24.5	34.6	20.0	24.4	44.7	54.8	69.3
3Ω	21.2	30.0	15.0	21.2	38.7	47.4	60.0
2Ω	17.3	N/R	12.2	N/R	31.6	38.7	49.0
1.5Ω	15.0	N/R	10.6	N/R	27.4	33.5	42.4

## RD Amplifier Level Setting Guide

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## VXi Amplifier Level Setting Guide

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