

FM8 Integration Guide

1 Subwoofer placement

We recommend first trying either a corner near the front speakers, or in the middle of the front wall between them. Typically the corners have greater output whilst the mid-wall position often has a smoother frequency response.

2 Recommended initial setup when using an AVR

In AVR menu, make sure the front speakers are set to “small” and the crossover frequency is set to 80hz. Select the subwoofer mode, such that the bass is only played back from subwoofer, not “subwoofer + front speakers.” Next, make sure the distance settings of the speakers and subwoofer are correct in terms of their relative distances.

Recommended plate amplifier settings

(from top to bottom, left to right)

1. **Input:** LINE-IN
2. **Gain:** 0db
3. **Bandwidth:** middle position
4. **Frequency:** middle position (80 Hz)
5. **PEQ:** OFF
6. **Volume:** middle position (12 o'clock)
7. **Delay/phase:** 0
8. **Crossover:** max
9. **12db/24db switch:** 12db
10. **Bass Extension:** Low-music for articulate sound and low-HT for full bodied HT sound.
11. **When using FM8 as Mid-bass module:** Bass Extension at 50hz/24. Connect the same RCA input(s) to another subwoofer with 50hz/24 Low pass filter.

3 Recommended initial 2-channel setup (without AVR or pre-processor)

FM8 provides one channel high-pass filter (HPF) output at 150hz. To provide two channel HPF outputs, one needs two FM8 units. When using FM8 without HPF, it is assumed that the front speakers will run in full range. The following setting also assume the subwoofer is placed at a distance to the listener similar to those of the front speakers so no additional delay time adjustment is needed.

Recommended plate amplifier settings without using HPF (front speakers full range)

(from top to bottom, left to right)

1. **Input:** LINE-IN
2. **Gain:** 0db
3. **Bandwidth:** middle position
4. **Frequency:** middle position (80 Hz)
5. **PEQ:** OFF
6. **Volume:** middle position (12 o'clock)
7. **Delay/phase:** 2 o'clock – sealed speakers, 10 o'clock for ported front speakers.
8. **Crossover:** Set Crossover knob to match natural bass extension of the front speakers.
9. **12db/24db switch:** 24db
10. **Bass Extension:** Low-music for articulate sound and low-HT for full bodied HT sound.
11. **When using FM8 as Mid-bass module:** Extension filter at 50hz/24db. Connect the same RCA input(s)

to another subwoofer with 50hz and 24db/oct slope Low pass filter.

Recommended plate amplifier settings using HPF @150 Hz (from top to bottom, left to right)

1. **Input:** LINE-IN
2. **HPF RCA outputs:** go to power amp inputs
3. **Gain:** 0db
4. **Bandwidth:** middle position
5. **Frequency:** middle position (80 Hz)
6. **PEQ:** OFF
7. **Volume:** middle position (12 o'clock)
8. **Delay/phase:** 10 o'clock.
9. **Crossover:** 150hz.
10. **12db/24db switch:** 24db
11. **Bass Extension:** Low-music for articulate sound and low-HT for full bodied HT sound.
12. **When using FM8 as Mid-bass module:** Extension filter at 50hz/24. Connect the same RCA input(s) to another subwoofer with 50hz and 24db/oct slope Low pass filter.

4. Recommended room EQ setup procedure

4.1 Rumble filter/Extension setting

We recommend the following settings when using a Room EQ program:

Bass Extension filter: Low-HT

RoomEQ has the capability of changing the frequency response. EQ can interfere with the damping settings as damping relates to the time domain performance. As a result, it is recommended to set up RoomEQ with the maximum possible flat extension. **After EQ has been set up, one can then adjust the bass extension to the desired setting.**

4.2 Volume knob settings

We recommend setting the volume so that the RoomEQ system is not using greater boost or trim than necessary. If the boost or trim is greater than +6 dB, then increase volume setting on FM8 and rerun roomEQ. The goal is to limit the trim to between -6db to 0db.

4.3 Subwoofer distance determined by the room EQ system

All room EQ programs need to measure the subwoofer distance. If the distance reported back from room EQ program is very different from the physical distance, it is an indication that the noise level due to reflection or other factors has obscured the ability to accurately measure the distance. It is best to either re-run room EQ with a slightly higher volume setting or to move the subwoofer location so that the room EQ program can achieve a more accurate distance measurement.

Caution: Movies known to contain highly overloaded subsonic signals such as [opening scene of Edge of Tomorrow](#), [special effects of Interstellar](#) and [Titan AE](#) should be played back with caution. Use reasonable volume level and make sure Low-HT or High Extension setting is used.